Comparative Biomedical Sciences
Graduate Program

School of Veterinary Medicine

Student Guide*
2016-2017

***This information is current as of January 1, 2017**

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Welcome to the Comparative Biomedical Sciences Graduate Program

We look forward to helping you obtain your advanced degree at the University of Wisconsin-Madison and hope that this handbook assists you in pursuit of that goal. Please feel free to contact the program coordinator or director if you have specific questions or concerns.

Comparative Biomedical Sciences (CBMS) is an interdisciplinary graduate degree program in the biological sciences and offers the M.S. or Ph.D. degree through exceptional graduate research training in core areas of animal and human health. The program's areas of focus include genomics, infectious disease, immunology, molecular and cellular biology, neuroscience, oncology, pathology, pharmacology and toxicology, physiology and virology.

The program's faculty trainers are housed primarily in four academic departments in the UW School of Veterinary Medicine as well as a diverse array of departments throughout the University of Wisconsin–Madison campus.

The CBMS program draws its strength from the superb research and teaching of its faculty, its unique integrative structure, and the outstanding reputation of the UW-Madison campus, which is consistently ranked as one of the best graduate institutions in the nation. The program tailors its research strategies and academic curricula to the specific needs of each student. Graduates from the program are highly successful in the biotechnology industry and at top-ranked research institutions in the United States and abroad.

PROGRAM OVERVIEW

This handbook is intended for graduate students who are pursuing an MS, PhD, MS/DVM or PhD/DVM degree in Comparative Biomedical Sciences (CBMS). The UW-Madison Graduate School is the ultimate authority for granting graduate degrees at the University. The Department of Pathobiological Sciences, School of Veterinary Medicine, administers the CBMS program under the authority of the Graduate School. The Graduate School's Academic Policies and Procedures provide essential information regarding general University requirements. Program authority to set degree requirements beyond the minimum required by the Graduate School lies with the CBMS academic committee and program graduate faculty. The policies described in this handbook have been approved by the Comparative Biomedical Sciences academic committee and the program faculty as a whole. Degrees and course requirements may change over time. However, students must meet the degree and course requirements in effect at the time they entered the program. In addition, administrative procedures and processes can change over time. Students are required to follow the procedures and processes listed in the current handbook. The information in this handbook should also be supplemented by individual consultation with your advisor and thesis committee so that individual needs or interests and all degree requirements are met. Additional information is available via the CBMS program web page. Students may also wish to consult the Graduate School's web page (http://grad.wisc.edu/).

CBMS Web Site: **www.vetmed.wisc.edu/ms-phd/**
Please check the web site often for updates of program requirements.

Key Program Contacts

Director
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Program Coordinator
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Academic Committee (academic year 2016-2017)

M. Suresh, Director – Pathobiological Sciences
Ralph Albrecht – Animal Science, At-large
Dörte Döpfer – Medical Sciences
Troy Hornberger – Comparative Biosciences
Jonathan McAnulty- Surgical Sciences
Peter Muir – Surgical Sciences
Chad Vezina – Comparative Biosciences
Adel Talaat – Pathobiological Sciences
Lauren Trepanier – Medical Sciences

Guests
Dale Bjorling – Dean of Research and Graduate Training, SVM
Charles Czuprynski – Chair and Professor, Pathobiological Sciences

Student Representatives:
Jennifer Reinhart – Trepanier lab
Joseph Kuo – Schell lab

Learning Outcomes/Training Goals

Master's Level

All UW-Madison students entering the CBMS graduate program must hold at least a bachelor's degree. Graduates obtaining a master's degree are expected to achieve the following learning goals by the end of their degree work.

Knowledge

- Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry and/or schools of practice in the field of study.
- Articulates sources and assembles evidence pertaining to questions or challenges in the field of study.
- Assesses and/or applies methodologies and practices in the field of study.
- Articulates challenges involved in practicing the field of study, elucidates its leading edges, and delineates its current limits with respect to theory, knowledge, and/or practice.
- Appreciates the implication of the primary field of study in terms of challenges, trends, and developments in a broader scientific context.

Skills

- Demonstrates abilities to apply knowledge through critical thinking, inquiry, and analysis to solve problems, engage in scholarly work, and/or produce creative products.
- Evaluates, assesses or refines information resources or an information base within the field.
- Communicates clearly in styles appropriate to the field of study.

Professional Conduct

- Recognizes and applies ethical conduct and professional guidelines.

Doctoral Level

Regardless of whether an individual is initially awarded a master's degree, the doctoral level learning goals are inclusive of the master's level learning goals. Additionally, doctoral level students are expected to achieve the following learning goals by the end of their degree work.

Knowledge

- Initiates, assembles, arranges and/or reformulates ideas, concepts, designs, and/or techniques in carrying out a project beyond conventional boundaries.
- Engages diverse cultural, historical or scientific perspectives and articulates how these perspectives contribute to a project, paper or performance.

Skills

- Develops hypothesis, creates research, scholarship or performance that makes a substantive contribution to the field of study.
- Demonstrates breadth within their learning experiences.
- Implements methodologies and/or practices to test hypotheses and illustrates the

implications of the experimental outcome to the field of study and its relationship to allied fields.
- Develops new concepts and methodologies and/or identifies new research opportunities.
- Communicates complex and/or ambiguous ideas clearly.
- Evaluates the implications of one's own scholarship/research/performance to broader scientific advancement.

Professional Conduct

- Fosters ethical conduct and professional guidelines.

Program Statistics

Eighty-five faculty members currently serve as trainers in the program. They are housed primarily in the four academic departments in the School of Veterinary Medicine as well as in a diverse number of University of Wisconsin-Madison departments throughout the campus.

Approximately 50 students, most of whom are Ph.D. candidates, are currently enrolled in the CBMS graduate program. Research strategies and academic curricula are tailored to the specific needs of each individual student. Graduates from the program are highly successful in the biotechnology industry and at top-ranked research institutions in the United States and abroad.

Students' average time to degree for the past three years is 4.2 years. The average number of peer-reviewed student publications is 5.3 and the average number of first author peer-reviewed publications is 2.6.

Program Structure

The Comparative Biomedical Sciences (CBMS) graduate program is administered by the Department of Pathobiological Sciences in the School of Veterinary Medicine.

The Academic Committee consists of a director and two faculty members from each department within the School of Veterinary Medicine and one at-large faculty trainer, as well as two graduate student representatives from the CBMS graduate program. The committee reviews applications, certifications, sets policy and is responsible for the administration of the CBMS program.

The Graduate Faculty is comprised of UW-Madison faculty who serve as trainers or mentors for graduate students in the CBMS program. The Graduate faculty vote on any changes to the structure of the program or academic requirements.

A complete list of faculty trainers can be found on the web at http://www.vetmed.wisc.edu/ms-phd/current-students/faculty-trainers/.

Information for Faculty Trainers

Program Expectations for Trainers

Program faculty members are expected to actively participate in the activities of the program by sponsoring and mentoring graduate students, serving on graduate committees, assisting in recruitment of students and attending student seminars when possible.

How to Apply for Trainer Status

UW-Madison Faculty interested in becoming a trainer in the CBMS Graduate Program should send a letter or email of intent to either the program director or program coordinator (see page 4 for contact information) and include a current CV as well as current funding (similar to that required by major granting agencies). Some indication of prior experience with mentoring students is also helpful.

Student Support

The CBMS program does not set a standard stipend for Research Assistants but does suggest a range from a 50% appointment as minimum to a maximum of 75% if the student holds an advanced degree such as a DVM.

Rotations

The CBMS program offers a limited number of rotations for students, primarily in the fall semester. Rotation slots are offered to outstanding students who have several faculty interested in having them join their lab. Rotations may last from 4 to 6 weeks, as decided upon by faculty and the student. The program will pay for the student's stipend and tuition for three of the four months of the term. Faculty who accept a rotation student into their lab are requested to pay that student's fourth month of support.

Independent Development Plan

The program strongly recommends that mentors encourage their students to initiate an individual development plan (IDP) in their first year of study and review and revise it annually. Mentors and students should meet annually to discuss the student's plan.

Mentors who support students on NIH grants are required to indicate on their RPPR, Section B, item 4, that the University has implemented an IDP policy for trainees supported by NIH. The University has provided language you may use.

Note that NIH is not interested in the details of any student's IDP but wants to know that UW-Madison has a policy in place (see http://grad.wisc.edu/pd/idp).

The Graduate School has developed resources and a tracking tool for both students and mentors at http://grad.wisc.edu/pd/idp.

ADVISING

Admission to the Comparative Biomedical Sciences program occurs primarily through direct admission to a faculty member's lab. The responsibility for finding a thesis or project advisor is solely that of the student. This faculty member serves as the primary advisor to the student throughout their graduate study. Additional mentorship is provided through the student's thesis committee. Students are encouraged to maintain an open relationship with their mentor. Any issues arising should be addressed at the mentor-mentee level. In the event that this relationship irretrievably breaks down, the student should contact the program director or the program coordinator.

Advisor/Mentor

The advisor serves a dual role. First, to assist the student in acquiring the highest level of knowledge and competence in the field that is possible; and second, to chair the committee that will determine whether the student has performed acceptably at each of his or her degree milestones. The chair or co-chair of the committee must be graduate faculty from the CBMS program. Mentors should play a role in tracking the student's progress toward degree completion, assist with course selection and academic planning, and help students identify possible research mentors, committee members, and opportunities.

Advisee

Knowing the procedures and requirements of the university and the program is the student's responsibility. Since the mentor's role can vary, students should discuss roles and expectations with their advisors or prospective advisors early in the relationship.

Both the student and the advisor have a responsibility to make their expectations clear to each other.

PROGRAM BASICS: COURSEWORK FOR MS AND PHD STUDENTS

Students are responsible for designing their own curriculum, following the basic rules for the required number of credits as defined by both the Graduate School and the CBMS program. Incoming students should consult with their advisor regarding which classes to take.

Course Guide

Course registration is done via the web only. Web enrollment can be accessed through your MyUW Student Center. You will need your NetID and password to access MyUW.

Click on the "Student Center," which gives you real-time course listings and the availability to register. It also lists many other important links you may need to access or obtain information.

Graduate course listings with short descriptions for all programs and departments may be found in the on-line Graduate Catalog at http://grad.wisc.edu/catalog/index.htm. Print copies of the Catalog are no longer produced.

If you encounter any problems registering or interpreting any instructions, feel free to ask the program coordinator or anyone in your departmental office for help.

Registration

All students are expected to meet with their mentor to finalize their registration. Any graduate student whose mentor is not available during the beginning weeks of the first semester should speak to the CBMS director for assistance with choosing coursework. All registration should be finalized by the end of the first week of classes.

When changing courses credits after a semester has begun, NEVER exceed a total of 15 credits without prior authorization. You can do this by using the Swap function in your student center or by dropping a course before you add one, without dropping your course load below the minimum required credits

Master's and PhD students supported by a Research Assistantship (RA) must be registered for 8 - 15 graduate level credits to be considered a full-time student for the fall and spring semesters, and 2 - 12 credits for the summer session. You must be appointed as an RA, or project assistant (PA) with a minimum of a 33.33% appointment to register for only 2 credits for the summer. Teaching assistants (YAs) may register for a reduced load depending on their teaching load. TAs holding a 50% TA appointment may register for only 4 credits during the fall and spring, whereas a 33.3% appointment requires enrollment of 6 credits for fall and spring. TAs teaching during the summer are not required to register but may do so if they wish.

Masters and PhD students without support are not required to register for the summer, nor are international students supported by external scholarships, but note that this may delay time to degree.

Dissertators (those who have passed preliminary exam B) must register for 3 credits in all semesters.

PLEASE contact the program coordinator if you are unsure of your enrollment requirements.

List of Required, Approved and Recommended Courses

Required Courses

Advanced Research Seminar (Path-Bio 930)

Students are required to participate in the Comparative Biomedical Sciences Advanced Research Seminar (PBS 930) several times during the course of the degree program. This class is designed to give CBMS students an opportunity to practice delivering a scientific presentation, and receive feedback from instructors and students in the class. The class is offered so that students who are presenting their research are graded on the standard A-F grading scale, and students who are participating but not presenting are graded as either Satisfactory (S) or Unsatisfactory (U). Attendance in this class is mandatory.

The following is required for entering students as of fall 2016. Please see the previous version of this handbook for requirements of students who joined CBMS prior to Fall 2016.

Masters students must register for two semesters of PBS 930. MS students will take the course once as a presenter, and once as a participant, for a total of 2 credits.

PhD students must register for four semesters of PBS 930. PhD students will take the course twice as a presenter for a grade, and twice as a participant, for a total of 4 credits. One presentation must be completed prior to passing to dissertator status. The second presentation may take place after reaching dissertator status, but no later than the semester prior to the student's dissertation defense.

Students may continue to take the course after their respective required semesters.

It is expected that course conflicts will occur. A student who is unable to enroll in the seminar due to a course or other conflict should request a waiver from the academic committee that explains the conflict. The student will be required to make up that semester in a future term.

Approved Courses

The Graduate School recently determined that students must complete at least 50% of their courses deemed graduate level. This coursework is defined as:

- Any course numbered 700 and above
- Any courses that have been identified as graduate level by the course's subject owner.

To determine whether a course meets the 50% requirement, go to http://grad.wisc.edu/catalog/index.htm and click on Courses in the upper left-hand frame. Specific course information is listed by departments and the graduate level designation is noted next to each course. If Grad 50% Y is listed, it is a graduate-level course. If there is no such designation, then the course does not meet this requirement.

The CBMS program currently requires that all coursework taken for the major must have a minimum level of 400 to meet didactic course requirements.

The following is a list of and recommended core courses have been taken by many students in the past and are appropriate to specific research areas. These courses are suggestions only; you and your committee ultimately decide the best coursework plan for your specific needs.

Core Courses (chosen by many students in the past for their major didactic course plan)

- Genet 466: General Genetics
- Path-Bio 500: Molecular Biology Techniques*

- Path-Bio 773: Eukaryotic Microbial Pathogenesis*
- Biochem 501: Introduction to Biochemistry
- Biochem 612: Prokaryotic Molecular Biology*
- Biochem 620: Eukaryotic Molecular Biology*
- Biochem 630: Cellular Signal Transduction Mechanisms*
- Zoo 570: Cell Biology
- Pathol 750: Cell and Molecular Biology/Pathology*
- Pathol 751: Cell and Molecular Biology of Aging*
- Stats 571/572: Statistical Methods for Bioscience I,* II *

Strongly Recommended Course (required for T32 recipients & RAs supported on NIH grants)

- Surg Sci 812: Research Ethics and Career Development (fall semester only)*
- Nursing 705: Ethics and the Responsible Conduct of Research*
- Agronomy 565: Ethics of Modern Biotechnology*
- Any other science ethics course

Courses from which Students Build their Disciplinary Strength

Epidemiology

- Path-Bio 512: Introduction to Veterinary Epidemiology*
- Pop Hlth 797: Introduction to Epidemiology*
- Pop Hlth 801: Epidemiology of Infectious Diseases*
- Pop Hlth 802: Advanced Epidemiology: Etiology and Prevention*

Physiology

- An Sci 434: Reproductive Physiology*
- Comp Bio 506: Veterinary Physiology B (spring)*
- Zoo 611: Comparative and Evolutionary Physiology
- Zoo 954: Seminar in Endocrinology-Reproductive Physiology*

Infectious Disease and Immunology

- Path-Bio 773: Eukaryotic Microbial Pathogenesis*
- Path-Bio 510: Veterinary Immunology*
- Path-Bio 513: Veterinary Virology*
- Path-Bio 514: Veterinary Parasitology*
- Path-Bio 517: Veterinary Bacteriology and Mycology*
- Path-Bio 528: Immunology
- MM&I 701: Infection and Immunity I*
- MM&I 720: Advanced Immunology: Critical Thinking*
- MM&I 740: Mechanisms of Microbial Pathogenesis*
- MM&I 750: Host-Parasite Relationships in Vertebrate Viral Disease*
- MM&I 790: Immunology of Infectious Disease*

Neuroscience

- Comp Bio 505: Veterinary Neuroanatomy and Neurophysiology*
- Neurosci 610: Cellular and Molecular Neuroscience*
- Neurosci 611: Systems Neuroscience*
- Neurosci 635: Neurobiology of Disease*
- Zoo 523: Neurobiology I
- Zoo 524: Neurobiology II: An Introduction to the Brain and Behavior

Toxicology & Pharmacology

- Comp Bio 555: Veterinary Toxicology*
- Pathol 625: Toxicology I*
- Pathol 626: Toxicology II*

Oncology

- Oncol 675: Topics in Cancer Research (techniques courses)*
- Oncol 703: Carcinogenesis and Tumor Cell Biology*

Virology

- Path-Bio 513: Veterinary Virology*
- Biochem 575: Biology of Viruses*
- Oncol 640: General Virology: Multiplication of Viruses*

*Meets the Graduate School's 50% graduate level requirement.

Performance Standards (Grade Point Average, GPA)

The Graduate School requires that all graduate students maintain a GPA of at least 3.0 (B average) for all graduate course work, excluding research courses, which are graded S, P or U for satisfactory, progress and unsatisfactory, respectively. Students with a lower than 3.0 GPA may not achieve dissertator status and are considered to be on academic probation, which involves monitoring and possible disciplinary action by the Graduate School.

Note that the CBMS program currently requires that you take 400-graduate-level classes and above for approved major coursework. Receipt of grade B or better is required to maintain acceptable progress toward the degree.

Please contact the program coordinator if you are placed on academic probation.

MASTER'S DEGREE REQUIREMENTS

All students wishing to receive the Master's degree must complete the requirements of the Graduate School and the CBMS program.

Students who entered the program prior to fall 2014 are grandfathered under the older rules. If you drop out of the university and re-enter, you will be required to complete your degree under the new credit requirements. Briefly, the older rules are:

Course requirements for MS students who entered prior to fall 2014

Graduate School requirements (pre-fall 2014)

- 16 credits total (any combination of didactic or lab courses, seminars and research), 300-level or above, taken at UW-Madison.
- 3.0 cumulative GPA.
- Be registered for a minimum of two credits during the semester in which you plan to graduate.

CBMS program course requirements (pre-fall 2014)

- 9 didactic or laboratory credits, 400 level or above. Six credits may be transferred from advanced degree coursework with the approval of your committee and the CBMS academic committee.
- 1 credit of PathBio 930 seminar (research seminar). The first semester should be taken pass/fail.
- 5 credits research 990 (minimum).
- Certification paperwork submitted and approved by your thesis committee and the academic committee.
- Thesis or publishable work approved by your major professor and committee of work based on original research and defended before your committee. Official deposit of the thesis with the Graduate School is not required.

Course requirements for MS students who entered the program in or after fall 2014

Graduate School requirements (post-fall 2014)

- 30 credits total (any combination of didactic or lab courses, seminars and research), one-half of which must be designated as graduate level and taken at UW-Madison.
- 3.0 cumulative GPA.
- Be registered for a minimum of two credits during the semester in which you plan to graduate.

CBMS program course requirements for MS students who enter fall 2014 and later

- 9 didactic credits. Six credits of advanced coursework from other institutions may be transferred as approved by your thesis committee and the academic committee provided they are defined as graduate level. Credits may be transferred from coursework taken as a Special Student at UW-Madison if the student pays the difference in tuition for the terms in question but all courses within a given semester must be used. You may not "pick and choose." A maximum of 6 undergraduate credits may be transferred only from UW-Madison. In all cases, these credits will not count toward the 50% minimum unless the courses are graduate level: 700 level and above or designated as such in the Catalog.
- 1 course of PathBio 930 seminar (student research seminar).
- For students who enter fall 2016 or later: Masters students must register for two semesters of Path-Bio 930 and present once during their second semester. MS students will take the course P/S/U (Progress/Satisfactory/Unsatisfactory) if not presenting. Students must attend a minimum of 75% of the seminars led by students to receive a passing grade.
- 19 (minimum) research 990 credits.
- Certification paperwork submitted and approved by your thesis committee and academic committee.
- Annual Meetings with your committee between certification and your defense
- Thesis or publishable work approved by your major professor and committee of work based on original research and defended before your committee. Official deposit with the Graduate School is not required.

Requirements for all MS students (pre- and post-fall 2014 entry)

Please note registration requirements detailed on page 9. Masters students not holding a paid position are not required to register for the summer but must register for the following fall semester or will be removed from graduate status by the University. A lapse of one or more spring or fall semesters requires a reentry application with fee.

Thesis Committee: You must have a committee to assist and guide you through your graduate career. The MS thesis committee is comprised of three members:

- Your major professor,
- One additional member from the CBMS program (see trainer list on web at http://www.vetmed.wisc.edu///ms-phd/current-students/faculty-trainers/) and one member from any graduate program on campus, or
- The third member may be a professor from another institution, a scientist or other person knowledgeable in your field. Also see "First Meeting/Certification" below.

Certification

You should complete certification by the end of the first semester you are enrolled.

Certification consists of preparing a document (available at http://www.vetmed.wisc.edu/ms-phd/current-students/documents-and-forms/ or from the program coordinator) that details your

coursework, research plan and committee make-up and is signed by your committee and approved by the CBMS academic committee.

First meeting/certification

1. In consultation with your major professor, decide which faculty you will ask to serve on your graduate committee. Either you or your major professor should contact other faculty to determine whether they are able to or interested in participating in your committee.
2. At least one month prior to when you would like to have the meeting, contact all members of your committee to schedule a meeting at an agreeable time for all parties. Make sure to schedule a meeting room.
3. Compile the following:
    - List of previous coursework relevant to your current area of research if you wish to transfer courses to your planned curriculum.
    - List of proposed courses.
    - Prepared paperwork required for certification (see Appendix I).
4. Distribute a brief (1-2 page) summary of your proposed research to your committee prior to the meeting. Your proposed research plan should outline your hypothesis and describe the strategy to be used to test the hypothesis. Also, define how each of your committee member's area of expertise will assist your research program.
5. Prepare and present a brief oral presentation (15-20 min PowerPoint presentation) describing your proposed research.
6. At the end of the meeting, complete the certification form and have it signed by all members of your committee.
7. Submit the completed, signed form to the graduate program coordinator (room 113 Hanson Labs). The form will be submitted to the CBMS academic committee for approval.
8. The program coordinator will inform you of the academic committee's decision.

Recertification

Students should recertify under any of the following conditions:

- Change of major professor
- Change or addition of a committee member
- Change of program level (MS to PhD or vice versa)

Annual meetings after certification

Students are required to meet with their committee once each year.

Purpose: To meet with your thesis committee annually to update and inform them of your progress in your research program, and to discuss any problems and define directions of the research.

Detailed procedure:

1. Schedule a meeting with your committee. Remember to reserve a room.
2. Write and distribute any updates on your research to your committee one to two weeks prior to the meeting.
3. At the meeting, present a brief PowerPoint summary of the progress you have made as well as planned future directions.

4. Ask your major professor to complete the Annual Progress Report and obtain signatures from your committee.

5. Submit the signed Report to the graduate coordinator, who will place it on your file.

FINAL STEPS

MS thesis and thesis defense

The student's graduate committee may request either a traditional thesis or a substantial scientific paper that is suitable for publication. The paper need not be submitted or accepted by a journal.

Detailed procedure

1. Obtain the permission of your mentor and graduate committee to begin writing your thesis. This is usually done at an annual committee meeting.

2. Write your thesis. Please consult the Graduate School's website for specific thesis requirements at http://www.grad.wisc.edu/education/completedegree/mguide.html. For the MS thesis, the graduate committee may request either a traditional thesis or a substantial scientific paper that is suitable for publication.

3. Schedule your thesis defense. Remember to reserve a room.

4. At least three to four weeks prior to the defense, submit a request for the Master's degree warrant to the graduate program coordinator.

5. Your completed thesis should be distributed to all members of your committee a minimum of two weeks prior to your defense date unless you make other arrangements with your committee members. Failure to comply with these rules may result in the cancellation or delay of your scheduled defense.

6. At least two weeks before the defense, submit the title, time, date, location and abstract for your final thesis seminar to the graduate program coordinator.

7. At your defense you will need to present your research to the public (approximately a 40-minute talk). This is followed by a private oral defense of your thesis research in front of your committee. Your committee will sign the thesis warrant either at the end of the thesis defense or when all thesis requirements are completed. Additionally, the thesis committee will fill and sign the Final Defense Evaluation form for the thesis defense.

8. Have your committee sign and grade the form provided to you with your warrant (or download from the web) and return it to the program coordinator.

9. Send a copy of the signed warrant and the evaluation form to the graduate coordinator.

10. The signed thesis warrant must be submitted to the Graduate School for your degree to be awarded.

11. Make sure that the Registrar has the correct address on file for your diploma. Receipt of the diploma generally takes six to eight weeks after the semester ends.

Note that CBMS does not require the Master's thesis to be deposited, but the program would appreciate receiving a copy of your thesis.

Committee member absence

In the event that a committee member cannot attend any meeting, the student should make every attempt to arrange a meeting via Skype or teleconference, or individually present the data to that faculty when possible. Any paperwork requiring signatures should be held until the committee member is able to sign. It is permissible to have an off-campus committee member sign a faxed or scanned copy, which should be attached to the original paperwork.

DOCTORAL DEGREE REQUIREMENTS

All students must complete the requirements of the Graduate School and the CBMS program.

Students who entered prior to fall 2014 are grandfathered under the older rules. If you drop out of the university and reenter, you will be required to complete your degree under the new credit requirements. Briefly, the older rules are:

Course requirements for PhD students who entered prior to fall 2014

Graduate School requirements

- 32 credits total of any type, 300-level or above, taken at UW-Madison to pass to dissertator status (pass preliminary exam B) or to graduate (any combination of didactic or lab courses, seminars and research).
- 3.0 cumulative GPA.
- Be registered for a minimum of three credits during the semester in which you plan to graduate.

CBMS program course requirements for PhD students who entered prior to fall 2014

- 20 didactic credits. Note that nine credits of advanced coursework, MS/DVM coursework or its equivalent, may be transferred as approved by your thesis committee and the academic committee.
- 2 credits of PathBio 930 student seminar, taken prior to preliminary exam B.
- 9 Research 990 credits (minimum, unless you take more didactic or laboratory courses)
- Certification submitted and approved by your thesis committee and the CBMS academic committee.
- Pass preliminary examinations A and B.
- Completed dissertation composed of original work approved by your major professor and committee based on original research, defended before your committee, and deposited with the Graduate School.
- Provide a copy of your dissertation to the program coordinator.

Requirements for PhD students who entered in or after fall 2014

Graduate School requirements (post-fall 2014)

- 32 credits of any type (any combination of didactic or lab courses, seminars and research) to pass to dissertator status (i.e., pass preliminary exam B).
- 51 credits total to graduate (at least one-half must be designated as graduate level and one-half at UW-Madison).
- 3.0 cumulative GPA.
- Be registered for a minimum of three credits during the semester in which you plan to graduate.

CBMS program course requirements for PhD students who entered fall 2014 or later

Major

- 20 didactic credits. Nine credits of advanced coursework, or MS/DVM coursework or equivalent, may be transferred as approved by your thesis committee and the Academic Committee, provided they are defined as graduate level. Nine credits may be transferred from coursework taken as a Special Student at UW-Madison if the student pays the difference in tuition for the terms in question. A maximum of 7 undergraduate credits may be transferred only from UW-Madison. In all cases, these credits will not count toward the 50% minimum unless the courses are graduate level (700 level and above).
- 2 PBS 930 one-credit student seminar courses.
- For students who enter fall 2016 or later: PhD students must register for four semesters of Path-Bio 930 and present twice after the first two semesters. PhD students will take the course P/S/U (Progress/Satisfactory/Unsatisfactory) unless they are presenting. One presentation must be completed prior to passing to dissertator status. The second presentation may take place after reaching dissertator status, but no later than the semester prior to the student's dissertation defense. Students must attend a minimum of 75% of the student-led seminars to receive a passing grade.
- Students may continue to take the course after their respective required semesters and PhD students are encouraged to present an additional seminar after reaching dissertator status.
- 28 Research 990 credits minimum, unless you take more than 20 didactic or laboratory courses.
- Certification submitted and approved by your thesis committee and the CBMS academic committee.
- Pass preliminary examinations A and B.
- Completed dissertation composed of original work approved by your major professor and committee based on original research, defended before your committee and deposited with the Graduate School.

Minor

A minor is no longer required but may be completed by students who wish to receive one. The decision to fulfill a minor should be requested at the time of certification (see below). In general, most minors require a minimum of 10 didactic credits in a single degree program (e.g., neuroscience, biochemistry, genetics). Focused minors usually require approval from the related program or department and may involve additional rules or credits. Almost all minors will not allow courses to count for both the major and minor. Check with the program in which you have an interest early in the process.

Thesis Committee:

You must have a committee to assist and guide you through your graduate career. A PhD thesis committee must be comprised of five or six members. The rules are as follows:

- Your major professor, who is a trainer in the CBMS program,
- Two additional graduate faculty from the CBMS program (see trainer list on program website http://www.vetmed.wisc.edu///ms-phd/current-students/faculty-trainers/),
- Two more graduate faculty members from any program on campus, or

- The fifth (and or sixth) member may also be a professor from another institution, a scientist or other person knowledgeable in your field.

Note that the Graduate School rules state that at least one member must be from a department (not program) other than that of your major professor. The CBMS academic committee must approve your committee choices. Also see "First Meeting/Certification" below.

Certification

You should complete certification by the end of the first year you are enrolled.

Certification consists of preparing a document (available on the web site or from the program coordinator) that details your coursework, committee members and research plan, and is signed by your committee and approved by the CBMS academic committee.

First Meeting/Certification

Procedure:

1. In consultation with your major professor, decide which faculty you will ask to be on your graduate committee. Either you or your major professor should contact other faculty to determine whether they are able to or interested in participating in your committee.
2. At least one month prior to when you would like to have the meeting, contact all members of your committee to schedule a meeting at an agreeable time. Make sure to schedule a meeting room.
3. Compile the following:
    - Outline of proposed coursework,
    - List of previous coursework relevant to your current area of research if you are requesting credit transfer from another institution,
    - Prepared paperwork required for certification (see Appendix I).
4. Distribute a brief description of your proposed research to your committee two weeks prior to the meeting that outlines your hypothesis and describes the strategy to be used to test the hypothesis. In addition, define how each of your committee member's area of expertise will assist your research program.
5. Prepare and present a brief oral presentation of your proposed research to your committee at the meeting.
6. At the end of the meeting, complete the certification form and have it signed by all members of your committee.
7. Submit the completed, signed form to the graduate program coordinator (room 113 Hanson Labs). The form will be submitted to the CBMS academic committee for approval.
8. The program coordinator will inform you of the academic committee's decision.

Recertification

Students should recertify under any of the following conditions:

- Change of major professor
- Change of committee member
- Change of program level (PhD to MS or vice versa)

Annual Meetings after Certification:

Students are required to meet with their committee once each year.

Meet with your thesis committee annually to update and inform them of your progress in your research program, to discuss any problems and to define or refine the direction of your research.

Detailed Procedure:

1. Distribute a written update on your research to your thesis committee one to two weeks prior to the meeting. Remember to reserve a room.
2. At the meeting, present a brief PowerPoint summary of the progress you have made as well as planned future directions.
3. Ask your major professor to complete the Annual Progress Report and have your committee members sign the form.
4. Submit the signed Student Research Progress Report to the program graduate coordinator (room 113 Hanson Labs), who will place it in your file.

Preliminary Examination A

You should complete preliminary exam A by the end of your second year.

The purpose of preliminary A is to assess your background knowledge and comprehension of more advanced topics covered in graduate courses or through independent study.

Detailed Procedure:

1. Schedule a meeting with your graduate committee. Remember to reserve a room
2. Two weeks prior to the meeting, your major professor will obtain questions from your graduate committee, usually one per member, but the actual number of questions is determined by the major professor. The questions will explore your ability to reason, evaluate the data of others, and construct experiments to test hypotheses.
3. Within one week, answer the questions in an open book manner. Copies of your answers must be distributed to your committee members by the end of that week.
4. You will have one additional week to study prior to your oral examination. During that time, you should carefully consider the answers you submitted.
5. At your meeting, you and your committee will discuss those answers and related subjects in an oral examination format.
6. Each member of your committee will assess your written and oral responses in the Preliminary A Evaluation Form. Students may be given the option of retaking the exam. A second failure may result in dismissal from the program.
7. Return all forms to the graduate coordinator, 113 Hanson Labs.

Preliminary Examination B:

You should complete preliminary exam B by the end of your third year.

The purpose of preliminary examination B is to assess your ability to write a grant proposal related to your research. Successful completion of prelim B allows you to pass to dissertator status with the Graduate School.

Detailed Procedure:

1. Schedule a meeting with your graduate committee. Remember to reserve a room.
2. At least three to four weeks prior to the meeting, submit a request for the Preliminary Examination warrant to the graduate program coordinator.
3. Write a research proposal in the grant style format agreed upon by your graduate committee. The format must follow the style requirements of any major granting agency, e.g., NIH, USDA, or NSF.
4. Submit your research proposal to all members of your graduate committee at least two weeks prior to the meeting.
5. At the meeting, present a PowerPoint or oral summary of your research proposal. You will then defend your proposal to your committee. Each committee member will sign your warrant if you have passed and fill out the Preliminary Examination B evaluation form.
6. Submit the signed warrant and the evaluation forms to the CBMS graduate coordinator to obtain additional signatures. You will be a dissertator at the beginning of the following semester, so designated and officially informed by the Graduate School in an email addressed to you and copied to the program coordinator.

ENROLLMENT REMINDER: As a dissertator, you must register for 3 credits each semester in order to maintain continuous registration. You must be registered during the semester in which you finish your degree.

Checklist for Meeting the Requirements for Dissertator Status

- ❑ Completed CBMS certification.
- ❑ Completed all major requirements: 20 coursework credits and 2 Path-Bio 930 courses (4 if entering in or after fall 2016); except for the final dissertation (and possibly 1 semester of Path-Bio 930).
- ❑ Completed all minor requirements of this option was selected at Certification.
- ❑ Satisfied all Graduate School requirements, which includes 32 credits in residence.
- ❑ Cleared all incompletes (I), no unreported grades (NR), or P grades in any courses.
- ❑ Passed preliminary exams A and B, obtained signatures and turned in a signed copy of the warrant and all evaluation forms to the program coordinator.
- ❑ Received an e-mail from the graduate school specifically telling you that you have reached dissertator status.

FINAL STEPS: PhD

PhD Dissertation and Defense:

Procedure:

1. Obtain the permission of your mentor and graduate committee to begin writing your thesis. This is usually done at an annual committee meeting or six-month prospectus.

2-. Write your dissertation. Please consult the Graduate School's website for specific thesis requirements (http://grad.wisc.edu/currentstudents/doctoralguide). The program does not have specific formatting requirements beyond that required by the Graduate School.

3. Schedule your final defense with your committee. Be sure to reserve a room for the public presentation and for the defense that follows.

4. Submit a request for the PhD degree warrant to the program graduate coordinator at least three to four weeks prior to the defense date.

5. Your completed thesis should be distributed to all members of your committee a minimum of two weeks prior to your defense unless you make other arrangements with your committee members. Failure to comply with these rules may result in the cancellation or delay of your scheduled defense.

6. Submit the title, date, time, location and the dissertation abstract for your final defense seminar to the program graduate coordinator at least two weeks before the defense date.

7. At your defense, you will need to present your final thesis seminar to the public (approximately a 40-minute talk). This is usually followed by a private oral defense of your thesis research in front of your committee. Each committee member will sign the final warrant and the Dissertation and Final Defense evaluation forms either at the end of the defense or when all thesis requirements are completed.

8. Provide a copy of the signed warrant and Final Defense forms to the program coordinator, room 113 Hanson Labs.

9 The signed warrant and dissertation must be submitted to the Graduate School at the time of deposit for your degree to be awarded.

Writing and Publishing the Dissertation

The Graduate School has initiated electronic deposit for dissertations. Details can be found at http://grad.wisc.edu/currentstudents/degree/. Hard copy (paper) submission is still an option with instructions to be found on the same web page.

Prechecks: The Graduate School also offers special sessions to answer specific questions about formatting. These meetings are held 9:00-9:30 each morning in 217 Bascom Hall. You do not need an appointment and may take 8 - 10 pages with you for review.

Deposit: After you have submitted the final e-version of your dissertation, you may either attend the final review in person or via Skype. In either case you must schedule an appointment with the Graduate School. If you choose Skype, you may search for "UWGrad School Final Review" or "final review@grad.wisc.edu" on Skype and video call at your scheduled time. You would have to upload the signed warrant prior to this.

Scheduling Your Final Review Appointment: To schedule a final review appointment, you MUST have successfully defended your dissertation. Final review appointments are made online using the UW-Madison Scheduling Assistant. Final review times usually take about 15 minutes.

Regular dissertation review appointment times are 10:00 a.m. to 11:00 a.m. and 1:00 p.m. to 2:00 p.m. Monday through Friday, with expanded availability during peak times of the year. Click the following link to view final review appointment availability.
https://calendar.wisc.edu/scheduling-assistant/public/profiles/RRVdPqrN.html

The following information MUST be entered in the "Reason for the appointment" box. Failure to enter this information may result in your appointment being canceled.

- NAME
- CAMPUS ID NUMBER
- GRADUATE PROGRAM NAME
- DEFENSE DATE
- CELL PHONE NUMBER
- SKYPE (if you will be using Skype for your final review instead of coming to the Graduate School in person)
- PROXY NAME (if someone else will attend the final review appointment on your behalf)

Upload or Bring Signed Warrant: You must upload your signed warrant to the ProQuest ETD Administrator site if you will be doing a Skype final review. You must physically bring your signed warrant to 228 Bascom Hall if you will be attending your final review in person. The committee listed on the signed warrant must be identical to the one approved on the PhD final warrant request.

Submission & Approval of Dissertation: You must submit your dissertation electronically before coming to your final review appointment time. After your final review appointment, the Graduate School Degree Coordinator will approve and submit your dissertation to ProQuest/UMI Dissertation Publishing for microfilming and binding. You will receive an email notification when the Graduate School has approved your dissertation for publication. Your submission of the dissertation is final and you are not allowed to make changes once it has been approved by the Graduate School Degree Coordinator. The UW-Madison Library will receive a bound copy and an electronic version of your dissertation.

Printed Dissertation and Copy: CBMS requires that PhD degree graduates provide a hard copy of their dissertation to the program, at 113 Hanson Labs, 1656 Linden Dr. It is generally a good idea to provide a bound courtesy copy for your major professor as well. You may want to check with your lab's departmental office for up-to-date contract binding vendors. Many students use a local bindery (Grimm Book Bindery, 6880 Gisholt Drive, Madison, WI 53713, 608-221-4443 X 221). Their cost for a basic, bound thesis is currently $50 with additional fees ($8.50) for printing the title on the cover or spine, special accents, etc. You may access their website for additional information at http://www.grimmbindery.com/. Other binding options can be found on-line for even less.

Transcripts, Diploma and Certification of Graduation
Degrees are posted on official transcripts approximately four to six weeks after the end of each session. If you need degree certification or proof of graduation (i.e., the former indicates that you have fulfilled all the requirements, the latter indicates proof that you finished), visit http://registrar.wisc.edu/academic_records.htm for details on how to request either letter. All

grades must be submitted prior to this request.

Official transcripts may be ordered on-line from the Registrar at http://ordertranscript.wisc.edu/or by mailing a transcript request form that you may download from the same site and mail to the address provided.

Diplomas are mailed to a student's home address approximately 8 to 10 weeks from the end of the semester in which you are awarded the degree. Your name will appear on your diploma as it is recorded on your official records. (Name changes may be filed with the Registrar, 333 East Campus Mall, #10501.) A UW degree folder may be picked up at the Registrar's Office, 333 East Campus Mall, #10501, if you do not attend commencement. Your diploma will be mailed to the permanent home address you provided at your last registration. Use the MyUW link to update personal information. International students who need their diploma sent to an address outside the US must enter their Student Center and check their home address. If you want the diploma mailed to that address, update it to **Diploma** address. Questions regarding diploma mailing may be addressed to degreeaudit@em.wisc.edu. Details regarding information above can be found at http://registrar.wisc.edu/diploma.htm.

Commencement (note new process as of Spring 2014)

All students must now personally apply to graduate and indicate when they plan to complete all degree requirements or attend commencement. The application is available in your Student Center via MyUW. Please refer to http://registrar.wisc.edu/graduation_commencement.htm for details on the above.

Note that you may attend a commencement ceremony before or after you actually finish and complete the degree requirements.

ROTATION STUDENTS

Entering students offered rotation may participate in rotations until the end of the semester in which you enter. Rotations typically run 4 - 8 weeks each and most students will rotate with three faculty. You may set up all rotations at the start of the term, or as the semester proceeds. You may already have one or more labs in mind when you first come to Madison, or you may not. Please keep the program coordinator informed of your rotations as well as informing him or her of the lab you ultimately join.

Laboratory rotations are designed to provide you with an opportunity to do research in prospective laboratories prior to selecting the one in which you do your thesis work. They provide first-year students, faculty, and other lab personnel a chance to get to know one another in terms of specific lab projects, scientific approaches and thinking, mentoring style, and lab atmosphere and dynamics. Joining a lab at the conclusion of your rotations is a mutual decision between you and the lab director.

Rotations may be performed: a) with the idea of joining a lab for several years of thesis research, b) to gain experience with a particular technique or experimental approach, or c) to get once-in-a-lifetime exposure to a particular field of study or type of work. Any of these rationales for doing a rotation are fine, but should be clearly understood by both the student and the lab director from the beginning. Even if you arrive with a focused idea of which lab you want to join, you should do several rotations for the experience because you may find other labs that interest you more.

You must choose a lab to join by the end of the fall semester. The best strategy for choosing a lab is to maintain an open line of communication between you and the faculty member. Joining a lab is a mutual decision between a student and a faculty member, and most students are able to join labs that are their first choice. Occasionally, problems do arise, and alternatives should always be considered.

Potential Questions to Ask Prospective Thesis Advisors

Choosing a thesis advisor is an important decision that will influence the course of your scientific career. To choose wisely, one needs to be well informed. It is important to think beyond the issue of common research interests and to consider other aspects of your graduate training. To aid you in this process, a list of possible questions to ask prospective thesis advisors is provided below. These questions are intended to stimulate a dialog between you and your potential thesis advisor that will allow you to assess whether your views of graduate education are compatible. The hope is that by discussing these issues before choosing an advisor, future conflicts will be avoided and you will have a productive and rewarding graduate career.

Questions you may wish to ask of prospective thesis advisors:

1) What thesis projects would be available to me if I were to join your lab?

2) Would these projects expose me to a variety of different experimental approaches?

3) In general, how available will you be (e.g., on a daily or a weekly basis) to answer

questions I might have?

4) What is your philosophy regarding the amount of guidance the thesis advisor should provide to a student during preparation of the thesis proposal, literature seminars, thesis, etc.?

5) What are your expectations for the amount of time (and working hours) I should spend each day/week in the lab?

6) What regularly scheduled activities (e.g., group meetings, joint group meetings, research clubs) does your lab participate in that provide an opportunity to get outside input on my research project and to hear about the work of other students and postdocs?

7) Do you encourage your students to attend seminars and journal clubs, including those that may be outside their field of research?

8) Do students in your lab have the opportunity to attend scientific meetings where they can interact with researchers from other institutions?

9) Do you include your graduate students in professional activities that will familiarize them with their field of research, such as reviewing manuscripts and meeting with visiting speakers?

10) What are your former graduate students (if any) doing now?

11) What is your general philosophy of graduate training and what goals do you have for your graduate students?

12) Do you believe that you have or can obtain adequate funding to maintain my stipend throughout the course of my career as a graduate student?

13) How many students will you accept into your lab this year?

Many of these questions are not simple and may not elicit a quick answer. However, any trainer should be willing to discuss these important issues with you. You may also want to discuss these issues with any students that are currently in the prospective advisor's lab. This list is by no means complete; you should spend some time thinking about what is most important to you in your graduate training. Most importantly, you want to find a trainer who will nurture your career and encourage you to achieve your full potential.

DUAL DEGREES

A dual degree is a combination MS or PhD and a professional degree. The most common dual degree in Comparative Biomedical Sciences is the MS/DVM but there are others. Whether you work on the degrees sequentially or simultaneously, you must complete all requirements for both degrees.

MS/DVM (or other professional degree)

In order to earn a dual degree, a student must complete the requirements for the Graduate School, the CBMS program, and the professional program. For a more complete description of all MS requirements, please see the section on MS degrees (pages 13-16).

Requirements for dual MS students who entered the program prior to fall 2014
You are grandfathered under the older rules. Note that if you drop out of the university and re-enter, you will be required to complete your degree under the new credit requirements.

Graduate School Requirements (pre-fall 2014)

- 16 credits total of any type, 300-level or above, taken at UW-Madison.
- 3.0 cumulative GPA.
- Be registered for a minimum of two credits during the semester you plan to graduate.

CBMS Program Course Requirements (pre-fall 2014)

- 9 didactic or laboratory credits, 400 level or above (6 of these may be transferred from your professional degree coursework)*
- 1 credit of PathBio 930 student research seminar.
- 5 credits research 990, minimum.
- Certification submitted and approved by thesis committee and Academic Committee
- Annual Meetings with your committee between certification and your defense.
- Thesis or publishable work approved by your major professor and committee members of work based on original research and defended before your committee. Official deposit with the Graduate School is not required.

Requirements for dual MS students who entered the program in or after fall 2014

Graduate School Requirements (post-fall 2014)

- 30 credits total of any type, provided they are 400-level courses or higher, including didactic and laboratory classes, seminars and research. One-half of these must be designated graduate level and taken at UW-Madison. Refer to the Graduate Catalog list of courses. The link can be found at https://grad.wisc.edu/catalog/index.htm.
- 3.0 cumulative GPA.
- Be registered for a minimum of two credits during the semester you plan to graduate.

CBMS course requirements (post-fall 2014)

- 9 didactic credits. Six credits of advanced coursework from other institutions may be transferred as approved by your thesis committee and the academic committee provided they are defined as graduate level). Credits may be transferred from coursework taken as

a Special Student at UW-Madison if the student pays the difference in tuition for the terms in question but all courses within a given semester must be used. You may not "pick and choose." A maximum of 6 undergraduate credits may be transferred only from UW-Madison. In all cases, these credits will not count toward the 50% minimum unless courses are graduate level: 700 level and above or designated as such in the Catalog.

- 1 credit of PathBio 930 student research seminar (For students who enter fall 2016 or later: See Course requirements for all students above for rules related to PBS 930 registration.)
- 19 (minimum) Research 990 credits
- Certification submitted and approved by thesis committee and Academic Committee
- Thesis or publishable work approved by your major professor and committee (official deposit is not required) of work based on original research and defended before your committee.

Note: If you have already completed your DVM or other professional degree before matriculating in the CBMS program, you must also be sure to fulfill the 16 credit (pre-fall 2014 enrollment) or 30 credit (fall 2014 enrollment or later) Graduate School requirement with coursework taken at UW-Madison.

If your professional degree is in progress, and you plan to complete the MS in the summer, you must be registered for 2 credits.

PhD/DVM (or other professional degree)

In order to earn a dual degree, a student must complete the requirements for the Graduate School, the CBMS program and the professional program. For a more complete description of all PhD requirements, please see the full section on the PhD degree (pages 17-25).

Students who entered the program prior to fall 2014

You are grandfathered under the older rules. If you drop out of the university and reenter, you will be required to complete your degree under the new credit requirements. Briefly, the older rules are:

Graduate School requirements (pre-fall 2014)

- 32 total credits of any type, 300-level or above, taken at UW-Madison to pass to dissertator status (pass prelim B) or to graduate.
- 3.0 cumulative GPA.
- Be registered for a minimum of three credits during the semester you plan to graduate.

CBMS course requirements for dual PhD students who entered prior to fall 2014

- 20 didactic credits. Nine credits of advanced coursework, MS/DVM coursework or its equivalent, may be transferred as approved by your thesis committee and the Academic Committee. A minor is not required but may be chosen if the student wishes to complete one. Note that this usually requires additional coursework.
- 2 credits of PathBio 930 student research seminar.
- 9 Research 990 credits minimum, unless you take additional didactic or laboratory courses.
- Certification submitted and approved by your thesis committee and Academic Committee.
- Pass preliminary examinations A and B.
- Annual Meetings with your committee between certification and your defense. Preliminary exams may be considered an annual meeting.
- Completed dissertation composed of original work approved by your major professor and committee based on original research, defended before your committee and deposited with the Graduate School.

Students who entered the program in or after fall 2014

The Graduate School requires a minimum of **32** total credits prior to taking preliminary exam B and a total of **51** credits to graduate. This includes any combination of didactic or lab courses, seminars and research.

Graduate School requirements (post-fall 2014)

- 32 credits of any type (any combination of didactic or lab courses, seminars and research) to pass to dissertator status (i.e., pass preliminary exam B).
- 51 credits total to graduate (at least one-half must be designated as graduate level and one-half at UW-Madison).
- 3.0 cumulative GPA.
- Be registered for a minimum of three credits during the semester in which you plan to graduate.

CBMS course requirements for dual PhD students who entered fall 2014 or later

Major

- 20 didactic credits. Nine credits of advanced coursework (MS or DVM coursework or equivalent), may be transferred as approved by your thesis committee and the academic committee, provided they are defined as graduate level. Nine credits may be transferred from coursework taken as a Special Student at UW-Madison if the student pays the difference in tuition for the terms in question. A maximum of 7 undergraduate credits may be transferred only from UW-Madison. In all cases, these credits will not count toward the 50% minimum unless the courses are graduate level, i.e., 700 level and above or so designated in the course catalog (see https://grad.wisc.edu/catalog/degreq.htm and click on Courses).
- 2 PBS 930 one-credit student seminar courses.
- For students who enter fall 2016 or later: PhD students must register for four semesters of Path-Bio 930 and present twice after the first two semesters. PhD students will take the course P/S/U (Progress/Satisfactory/Unsatisfactory) unless they are presenting. Both presentations must be completed prior to passing to dissertator status. Students must attend a minimum of 75% of the student-led seminars to receive a passing grade.
- Students may continue to take Path-Bio 930 in addition to their required semesters and PhD students are encouraged to present an additional seminar after reaching dissertator status.
- 28 Research 990 credits minimum, unless you take additional didactic or laboratory courses.
- Certification submitted and approved by your thesis committee and the CBMS academic committee.
- Pass preliminary examinations A and B.
- Annual Meetings with your committee. Preliminary exams may be considered an annual meeting.
- Completed dissertation composed of original work approved by your major professor and committee based on original research, defended before your committee and deposited with the Graduate School.

Minor

A minor is no longer required but may be completed by students who wish to receive one. The decision to fulfill a minor should be requested at the time of certification (see below). In general, most minors require a minimum of 10 didactic credits in a single degree program (e.g., neuroscience, biochemistry, genetics). Focused minors usually require approval from the related program or department and may involve additional rules or credits. Check with the program in which you have an interest early in the process.

Note: If you have already completed your DVM or other professional degree before matriculating in the CBMS program, you must also be sure to fulfill Graduate School requirement of 32 total credits (pre-fall 2014 enrollment) or 51 total credits (fall 2014 enrollment or later) with coursework taken at UW-Madison.

If your professional degree is in progress, and you plan to complete the PhD in the summer, you must be registered for 3 credits as a dissertator.

ACADEMIC EXCEPTION WAIVERS

A student may request an exception or waiver for any rule. Some examples are fewer than two CBMS trainers in addition to your mentor on a committee or substitution or delay of a course for a required class.

If you wish to request a waiver, prepare a letter or email stating the reason(s) for the request and provide some evidence that your mentor and preferably, your entire thesis committee, agrees with your request. Send it to the program coordinator or director, who will pass it to the academic committee for consideration. The program coordinator will inform you of their final decision.

OPPORTUNITIES FOR STUDENT INVOLVEMENT

There are frequent opportunities for CBMS students to become more involved in the program. Volunteers are needed every spring for recruiting, graduate fairs held in the summer and fall, and most importantly, committee membership in the CBMS academic committee. If you have an interest in any of these activities, contact the program coordinator for more information.

DIVERSITY

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity.

The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility.

Students are expected to inform faculty of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center or the Associate Dean for Student Academic Affairs, to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.

Respect for Diversity and Diverse Groups

The UW-Madison, School of Veterinary Medicine and CBMS program is committed to creating a dynamic, diverse and welcoming learning environment for all students and has a non-discrimination policy that reflects this philosophy. We expect students to behave respectfully with all, regardless of race/ethnicity, sexual orientation, political views, gender, religion, ability, or any other difference. (Credit to Dr. Andrea Gilmore-Bykovskyi, Nursing 705 Summer 2016 course syllabus).

The CBMS program promotes diversity though a number of initiatives throughout the year. Students requested and the program agreed to hold meetings and workshops related to diversity issues. We encourage all students, faculty and staff to participate in these events.

Resources for Addressing Hate & Bias in the Classroom and Lab

You can find more information about UW-Madison's hate and bias incident reporting system at students.wisc.edu/reporthate. If you witness an emergency or a crime, please call 911 or contact the UW Police Department. You may also report incidents in-person to the Dean of Students Office at 70 Bascom Hall during business hours. Reportable incidents include crimes such as vandalism or physical assault, as well as non-academic misconduct or derogatory speech. Anyone who files a report will meet with a member of the Hate and Bias Incident Team, so that we can meet their needs and ensure their safety.

We encourage faculty, staff and students to intervene and report any behavior that harms our campus climate. If you become aware of any such incident, please seek assistance from campus resources:

- Report at students.wisc.edu/reporthate
- Contact the Hate and Bias Incident Team at hateandbias@wisc.edu
- UW-Madison Police Department uwpd.wisc.edu

- University Health Services Mental Health Counseling uhs.wisc.edu/services/counseling
- Office of Equity and Diversity oed.wisc.edu
- Chancellor Blank has announced several initiatives to help foster a campus climate where everybody feels welcome, valued, and able to succeed. Please see https://campusclimate.wisc.edu for updates on these efforts. Thank you.

FUNDING AND FINANCIAL INFORMATION

Overview of Funding Landscape

The majority of students, both MS and PhD in CBMS are supported by their mentors as Research Assistants through federal granting agencies such as the NIH. Some are supported via individual scholarships or fellowships and training grants.

A few students are self-funded via a teaching assistantship or with personal funds.

The program does not dictate a set stipend but encourages faculty to support their students at the 50% level.

Teaching Assistant and Project Assistant Collective Bargaining

The contract between the state and the Teaching Assistant's Association covering TAs and PAs (http://oser.state.wi.us/docview.asp?docid=7113) is no longer in force; however, the university is continuing to use the terms of the contract until final university policies are adopted. Since the TAA no longer represents TAs and PAs, sections of the contract referring to "union" rights and responsibilities are no longer in effect. TAs and PAs can find policies in the contract related to grievance procedures; appointments; orientation, training, and evaluation; non-discrimination; termination; health and safety; and benefits, including sick leave, vacation, and leave of absence.

Stipend Levels and Paychecks

Stipend rates for graduate assistantships are set by the University. Current rates for TAs, PAs, and RAs can be found on the website of the Office of Fellowships and Funding Resources: http://grad.wisc.edu/studentfunding/currentstudents. Graduate assistants are paid on a monthly basis and stipends are usually deposited directly into student's bank accounts. You can authorize direct deposit by filling out the Authorization for Direct Deposit of Payroll form (https://uwservice.wisc.edu/docs/forms/pay-direct-deposit.pdf) and returning it to the benefits coordinator in your mentor's home department.

Tuition Remission and Payment of Segregated Fees

Teaching Assistants, PAs, RAs, and Lecturers (Student Assistants) with appointments of 33.3% or higher (approximately 13 hours per week) receive remission of their full tuition (in- and out-of-state, as applicable). Students with these appointments are still responsible for paying their assessed segregated fees for each term of enrollment.

Health Insurance Benefits

Teaching Assistants, PAs, RAs, and Lecturers (Student Assistants) with appointments of 33.3% or higher (approximately 13 hrs/week) for at least the length of a semester are eligible to enroll in a health insurance program. Information about health insurance options can be found at http://www.ohr.wisc.edu/benefits/new-emp/grad.aspx.
Current monthly premiums can be found at http://uwservice.wisc.edu/premiums/index.php#sgh. Questions about health insurance should be directed to your department or college benefits coordinator.

Maximum Appointment Levels

The Graduate School sets the maximum levels of graduate assistantship appointments. International students should be especially aware of maximum levels of employment. For more information on these policies, please visit http://grad.wisc.edu/acadpolicy/#maximumlevelsofappointments.

Enrollment Requirements for Graduate Assistants

Students with graduate assistantships must be enrolled appropriately. Detailed information about enrollment requirements can be found in the Graduate School's academic policies at http://grad.wisc.edu/acadpolicy/#enrollmentrequirements

Fellowships

There are many different kinds of fellowships on campus. Some are awarded by departments, some are awarded by the school or college, and still others are awarded by the Graduate School. In addition, a number of students have applied for and won fellowships from federal agencies, professional organizations, and private foundations. The terms and conditions of fellowships across campus vary widely. If you have a fellowship, make sure you understand the obligations and benefits of that fellowship, including stipend, health insurance eligibility, eligibility for tuition remission, pay schedule, etc.

External Funding/Fellowships

We encourage all students to seek out and apply for funding from sources external to the university (e.g., federal agencies, professional organizations, private foundations). The Graduate School supports selected federal or private fellowships through the provision of tuition support and health insurance. To view a list, go to https://kb.wisc.edu/gsadminkb/page.php?id=34761. The Graduate School also provides remission of the non-resident portion of students' tuition (if applicable) to students who win external fellowships who are payrolled through the university and provide an academic year (9-month) or an annual year (12-month) stipend.

Students should be aware that fellowships and awards from external sources will each have unique terms and conditions that you should take the time to understand. Questions on external fellowships can be directed to the Office of Fellowships and Funding Resources.

The following are some sources of information on external funding:

1. Major external fellowships, prepared by the Office of Fellowships and Funding Resources: https://kb.wisc.edu/gsadminkb/page.php?id=34769.
2. The Grants Information Collection (GIC) on the second floor of Memorial Library http://grants.library.wisc.edu/
   The GIC is a great collection of print and on-line resources to help students find external fellowships and scholarships. You can learn how to set up a personalized profile on several on-line funding databases, and get regular notices of relevant funding opportunities. PLEASE REMEMBER: the timetable for identifying, applying for and receiving such external funding is generally quite long; plan on 9-12 months between the time you start your search and the time you may receive funding.

Once you find a fellowship, scholarship, or award to which you want to apply, consider contacting the Writing Center (http://www.writing.wisc.edu/Individual/index.html). The Writing Center staff can provide valuable advice on crafting your application.

Fellows with Concurrent Appointments

Students with fellowships or other appointments payrolled through the university may hold concurrent graduate assistantships and/or student hourly appointments up to a total maximum combined annual stipend of $33,121 (2016-2017 maximum for 75% support). If you have any questions about concurrent work along with your fellowship, please contact the Office of Fellowships and Funding Resources (https://uwmadisonoffr.wordpress.com/).

Funding for Study Abroad

The International Fellowships Office (http://fellowships.international.wisc.edu/) provides information about opportunities for international research, grants, scholarships and other funding.

Funding for Conference/Research Travel

Generally, funds for travel are provided to the student by their mentor. The CBMS program holds an annual competition in the fall to award outstanding students with a modest amount to be used toward travel to a scientific conference or meeting. Preference is given to students who have not received an award from the Graduate School (see below) or have other types of support specifically targeted for travel, e.g., appointment on a training grant.

The Graduate School provides some funding for students whose research has been accepted for presentation at a conference. For more information about this funding, visit the Conference Presentation Funds website at https://grad.wisc.edu/studentfunding/grantscomp/conference/.

In addition, the Graduate School runs a competition on a rolling basis for funds to support travel related to your dissertation/thesis research. Students must be dissertators. For more information about this funding, visit the Research Travel Award website at https://grad.wisc.edu/studentfunding/grantscomp/research/.

Loans

The Office of Student Financial Aid (OSFA) (http://www.finaid.wisc.edu/graduate-students.htm) assists graduate students whose personal and family resources are not adequate to cover the expenses involved in attending the University of Wisconsin-Madison. The office also provides counseling to help students manage their money effectively, information on other potential sources of financial assistance (such as employment), debt management counseling, and small short-term loans for emergency situations.

PROFESSIONAL DEVELOPMENT AND CAREER PLANNING

UW-Madison offers a wealth of resources intended to enrich your graduate studies and enhance your professional skills. It is expected that you will take full advantage of the resources that best fit your needs and support your career goals. Since our alumni thrive not only in academia but also in industry, corporate, government, and non-profit arenas, we strive to be in-tune, holistic, and innovative in our approach to meeting the diverse professional development needs of our students. By actively participating in these professional development opportunities, you will build the skills needed to succeed academically at UW-Madison and to thrive professionally in your chosen career.

Local Resources for Professional Development and Career Planning

For students pursuing faculty careers, your mentor and the members of your thesis committee will play the greatest role in mentoring as you approach the academic job search, such as appropriate timing, writing letters of recommendation, and professional networking.

Travel to Meetings and Conferences

An important part of the professional development of graduate student is the participation in professional meetings and conferences. Consult your advisor about the appropriate venues for you to attend. Some advisors may have access to funds to help support travel costs. Students should also explore volunteer opportunities at conferences to offset registration costs.

Registered graduate students are eligible to apply for Vilas Conference Presentation Funds from the Graduate School (http://grad.wisc.edu/studentfunding/grantscomp/conference).

Registered students who are travelling to conduct research necessary for their dissertation may apply for a Research Travel Award at http://grad.wisc.edu/studentfunding/grantscomp/research.

Know the rules and find tips for travel at
http://www.bussvc.wisc.edu/acct/travel/tabtripplanning.html.

International travel requires purchase of travel insurance. Be certain to check the new UW-Madison International Travel website at http://internationaltravel.wisc.edu/.

Campus-wide Resources for Professional Development

In addition to opportunities at the local level, the Graduate School Office of Professional Development and Engagement (OPDE) provides direct programming in the areas of career development and skill building, and also serves as a clearing house for professional development resources across campus. The best way to stay informed is to watch for the weekly newsletter from OPDE, GradConnections, and to visit http://grad.wisc.edu/pd/gradconnections for an up-to-date list of events. For example, typical topics covered throughout the year are:

- Individual development plans
- Planning for academic success
- Dissertation writing support
- Communication skills

- Grant writing
- Teaching
- Mentoring
- Research ethics
- Community engagement
- Entrepreneurship
- Career exploration: academic, non-profit, industry, government, etc.
- Job search support
- Pursuing postdoctoral training

Individual Development Plan

As you begin your graduate school career, an Individual Development Plan (IDP) is an essential tool to help you:

- Assess your current skills and strengths
- Make a plan for developing skills that will help meet your academic and professional goals
- Communicate with your advisors and mentors about your evolving goals and related skills.

The IDP you create is a document you will want to revisit again and again, to update and refine as your goals change and/or come into focus, and to record your progress and accomplishments. It also serves to start – and maintain – the conversation with your faculty advisor about your career goals and professional development needs.

All students are encouraged to develop and maintain an annual update of their IDP. If you are supported on an NIH grant, you are required to develop an IDP and will likely receive an email from the Graduate School indicating that you must begin your IDP. There are multiple options for beginning: UW-Madison IDP (http://grad.wisc.edu/pd/idp), AAAS IDP (http://myidp.sciencecareers.org/) and those created by individual programs on campus (email the program coordinator if you are interested in receiving a copy from Clinical Investigations).

Note that development of an IDP is considered to be the student's responsibility and you are expected to request meetings with your mentor to discuss career options and skill development and indicate this on the new tracking system. Mentors are then asked to log on to the tracking system and indicate that the meeting did take place. The student is not required to share details, only to meet and discuss concerns and plans with their mentor.

CONDUCT EXPECTATIONS

Professional Conduct

All students are expected to adhere to the highest standards of professional behavior and ethics. Students should avoid even an appearance of improper behavior or lack of ethical standards while in Graduate School at UW-Madison, in all professional settings, and in their personal lives. Students should conduct themselves according to the standards expected of members of the profession to which the student aspires. Concerns about infractions of Professional Conduct may be effectively handled informally between the instructor/advisor and the student. If a resolution is not achieved, a graduate program representative may be included in the discussion. Separate and apart from a violation of Professional Conduct, a student may face University disciplinary action with regard to the same action. Students are responsible for reading the information here as well as the information published on all the relevant web sites. Lack of knowledge of this information does not excuse any infraction.

1. Professional Ethics: Students shall show respect for a diversity of opinions, perspectives and cultures; accurately represent their work and acknowledge the contributions of others; participate in and commit to related opportunities; aim to gain knowledge and contribute to the knowledge base of others; understand the UW Student Code of Conduct; represent their profession and the program; and strive to incorporate and practice disciplinary ideals in their daily lives. Resumes/CVs must reflect accurate information.

2. Honesty and Integrity: Students shall demonstrate honesty and integrity as shown by their challenging of themselves in academic pursuits; honesty and ethics in research and IRB applications—including honesty in interpretation of data, commitment to an unbiased interpretation of academic and professional endeavors; and the need to document research activities, protect subject/client confidentiality and HIPPA regulations. Students shall follow-through and pull their weight in group activities and understand where collaboration among students is or is not allowed; not plagiarize others or past work (self-plagiarism), cheat, or purposefully undermine the work of others; and avoid conflicts of interest for the duration of their time in the program. As a professional, honesty and integrity also extends to personal behavior in life outside of the academic setting by realizing that students are representatives of the program, UW-Madison, and the profession as a whole.

3. Interpersonal and Workplace Relationships: Students shall interact with peers, faculty, staff and those they encounter in their professional capacity in a manner that is respectful, considerate, and professional. This includes and is not limited to attending all scheduled meetings, honoring agreed upon work schedules, being on-time and prepared for work/meetings, contributing collaboratively to the team, keeping the lines of communication open, offering prompt response to inquiries, and employing respectful use of available equipment/technology/resources. Chronic or unexplained absences are unprofessional in the workplace and could be grounds for termination or removal of funding. To facilitate the free and open exchange of ideas, any criticism shall be offered in a constructive manner, and the right of others to hold different opinions shall be respected.

4. Commitment to Learning: Students are expected to meet their educational responsibilities at all times. Be actively prepared for class and be ready for questions and answers. Be on time for every class and always show courtesy during class or if you have to leave class early. If possible, students should notify the instructor at least one day in advance of a planned absence. Students who are unable to attend class are responsible for finding out what occurred that day and should not expect instructors to give them individual instruction. Recognizing that the pursuit of knowledge is a continuous process, students shall show commitment to learning by persevering despite adversity and seeking guidance in order to adapt to change. Students shall strive for academic excellence and pursue and incorporate all critique, both positive and negative, in the acquisition of knowledge in order to understand and respect the community in which they work.

5. Professional Appearance: Students shall convey a positive, professional appearance in order to represent the program in a dignified manner. Appearance includes a person's dress, hygiene, and appropriate etiquette/protocols for the environment (including safety protocols and protective clothing in environments that require them).

This graduate program, the Graduate School, and the Division of Student Life all uphold the UW-System policies and procedures in place for academic and non-academic misconduct. In addition, graduate students are held to the same standards of responsible conduct of research as faculty and staff. Furthermore, unprofessional behavior towards clients/subjects, faculty, staff, peers and public are significant issues in the evaluation and promotion of students. In turn, we hold expectations for the highest level of academic integrity and expect professional, ethical, and respectful conduct in all interactions. Students may be disciplined or dismissed from the graduate program for misconduct or disregard for professional conduct expectations regardless of their academic standing in the program. Separate and apart from a violation of Professional Conduct, a student may face University disciplinary action with regard to the same action. Students are responsible for reading the information here as well as the information published on all the relevant web sites. Lack of knowledge of this information does not excuse any infraction.

Academic Misconduct

Academic misconduct is an act in which a student (UWS 14.03(1)):

1. Seeks to claim credit for the work or efforts of another without authorization or citation
2. Uses unauthorized materials or fabricated data in any academic exercise
3. Forges or falsifies academic documents or records
4. Intentionally impedes or damages the academic work of others
5. Engages in conduct aimed at making false representation of a student's academic performance or
6. Assists other students in any of these acts.

Examples of academic misconduct include but are not limited to:

1. Cutting and pasting text from the Web without quotation marks or proper citation
2. Paraphrasing from the Web without crediting the source
3. Using notes or a programmable calculator in an exam when such use is not allowed;
4. Using another person's ideas, words, or research and presenting it as one's own by not properly crediting the originator
5. Stealing examinations or course materials;

6. Changing or creating data in a lab experiment
7. Altering a transcript
8. Signing another person's name to an attendance sheet
9. Hiding a book knowing that another student needs it to prepare for an assignment
10. Collaboration that is contrary to the stated rules of the course or
11. Tampering with a lab experiment or computer program of another student.

Additional information regarding Academic Misconduct:
Graduate School Policy & Procedure: Misconduct, Academic:
http://grad.wisc.edu/acadpolicy/#misconductacademic

Dean of Students Office: Information for Students: How to Avoid Academic Misconduct? What Happens If I engage in Academic Misconduct? What Should I do If I know a Classmate is Cheating? http://www.students.wisc.edu/doso/students.html

Dean of Students Office: Academic Misconduct Flowchart:
http://students.wisc.edu/doso/misconductflowchart.html

University of Wisconsin System: Chapter UWS 14: Student Academic Disciplinary Procedures:
http://students.wisc.edu/doso/docs/uws_chapter_14.pdf

Non-Academic Misconduct

The university may discipline a student in non-academic matters in the following situations:

1. For conduct which constitutes a serious danger to the personal safety of a member of the university community or guest
2. For stalking or harassment
3. For conduct that seriously damages or destroys university property or attempts to damage or destroy university property, or the property of a member of the university community or guest
4. For conduct that obstructs or seriously impairs university-run or university-authorized activities, or that interferes with or impedes the ability of a member of the university community, or guest, to participate in university-run or university-authorized activities
5. For unauthorized possession of university property or property of another member of the university community or guest
6. For acts which violate the provisions of UWS 18, Conduct on University Lands
7. For knowingly making a false statement to any university employee or agent on a university-related matter, or for refusing to identify oneself to such employee or agent
8. For violating a standard of conduct, or other requirement or restriction imposed in connection with disciplinary action.

Examples of non-academic misconduct include but are not limited to:

1. Engaging in conduct that is a crime involving danger to property or persons, as defined in UWS 18.06(22)(d)
2. Attacking or otherwise physically abusing, threatening to physically injure, or physically intimidating a member of the university community or a guest

3. Attacking or throwing rocks or other dangerous objects at law enforcement personnel, or inciting others to do so
4. Selling or delivering a controlled substance, as defined in 161 Wis. Stats or possessing a controlled substance with intent to sell or deliver
5. Removing, tampering with, or otherwise rendering useless university equipment or property intended for use in preserving or protecting the safety of members of the university community, such as fire alarms, fire extinguisher, fire exit signs, first aid equipment, or emergency telephones; or obstructing fire escape routes
6. Preventing or blocking physical entry to or exit from a university building, corridor, or room
7. Engaging in shouted interruptions, whistling, or similar means of interfering with a classroom presentation or a university-sponsored speech or program
8. Obstructing a university officer or employee engaged in the lawful performance of duties
9. Obstructing or interfering with a student engaged in attending classes or participating in university-run or university-authorized activities
10. Knowingly disrupting access to university computing resources or misusing university computing resources.

Additional information regarding Non-Academic Misconduct

Graduate School Academic Policies & Procedures: Misconduct, Non-Academic:
http://grad.wisc.edu/acadpolicy/#misconductnonacademic

Dean of Students Office: Non-Academic Misconduct Standards Statement:
http://students.wisc.edu/doso/nonacadmisconduct-statement.html

Dean of Students Office: Non-Academic Misconduct Process
http://students.wisc.edu/doso/nonacadmisconduct.html

University of Wisconsin System: Chapter UWS 17: Student Non-Academic Disciplinary Procedures:
http://students.wisc.edu/doso/docs/NewUWS%2017.pdf

University of Wisconsin System: Chapter UWS 18: Conduct on University Lands:
http://students.wisc.edu/doso/docs/NewUWS%2018.pdf

Research Misconduct

Much of graduate education is carried out not in classrooms, but in laboratories and other research venues, often supported by federal or other external funding sources. Indeed, it is often difficult to distinguish between academic misconduct and cases of research misconduct. Graduate students are held to the same standards of responsible conduct of research as faculty and staff. The Graduate School is responsible for investigating allegations of research misconduct. This is often done in consultation with the Division of Student Life as well as with federal and state agencies to monitor, investigate, determine sanctions, and train about the responsible conduct of research. For more information, contact the Associate Vice Chancellor for Research Policy, 333 Bascom Hall, (608) 262-1044.

Please see section on "Grievance Procedures and Misconduct Reporting" for further information on reporting research misconduct of others.
Here are links for additional information regarding Research Misconduct and Responsible Conduct:
Graduate School Policies & Procedures: Responsible Conduct of Research
http://grad.wisc.edu/acadpolicy/#responsibleconductofresearch

Graduate School Office of Research Policy: Introduction & Guide to Resources on Research Ethics:
http://grad.wisc.edu/respolcomp/resethics/

Graduate School Office of Research Policy: Policies, Responsibilities, and Procedures: Reporting Misconduct
http://kb.wisc.edu/gsadminkb/page.php?id=34486

Graduate School Office of Research Policy: Policies, Responsibilities, and Procedures: Responsible Conduct of Research Resources
https://kb.wisc.edu/gsadminkb/search.php?cat=2907

DISCIPLINARY ACTIONS AND DISMISSAL

- Failure to meet the program's academic or conduct expectations may result in disciplinary action including immediate dismissal from the program. If a student is not making satisfactory progress in regard to academic or conduct expectations, the advisor should first consult with the student's committee to determine if disciplinary action or dismissal is recommended.
- Student progress will be reviewed through coursework performance or research at annual meetings. If the advisor and graduate committee find that a student has failed to achieve satisfactory progress with regard to academic or conduct expectations, the student may be dismissed from the program.
- Students will be placed on probation for one semester and will be reviewed by the CBMS Academic Committee following the probationary semester. Students placed on probation may be dismissed or allowed to continue based upon review of progress during the probationary semester.
- The status of a student can be determined as fitting one of three options:
  - Good standing.
  - Probation (not progressing according to standards but permitted to enroll).
  - Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

- A semester GPA below 3.0 will result in the student being placed on academic probation by the Graduate School. If a semester GPA of 3.0 is not attained during the subsequent semester of full-time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue based on advisor appeal to the Graduate School. A cumulative GPA of 3.0 is required to graduate. See the Graduate School Academic Policies & Procedures: Probation http://grad.wisc.edu/acadpolicy/#probation and Grade Point Average (GPA) Requirement http://grad.wisc.edu/acadpolicy/#gparequirement .

- Students may be disciplined or dismissed from the graduate program for any type of misconduct (academic, non-academic, professional, or research) or failure to meet program expectations regardless of their academic standing in the program. Separate and apart from a violation of Professional Conduct, a student may face University disciplinary action with regard to the same action. Concerns about infractions of professional conduct may be effectively handled informally between the student and the advisor/faculty member. However, if a resolution is not achieved, the issue may be advanced for further review by the program.

Process / Committee / Possible Sanctions

The Academic Committee (AC) administers the regulations established by the graduate faculty. It ensures students are meeting program expectations and may impose sanctions when appropriate. Faculty mentors and thesis committees determine whether the quality of a student's work and conduct are satisfactory, while the AC determines whether the student is satisfying academic requirements in a timely fashion and meeting program conduct expectations. Students who are falling behind academically or not meeting conduct expectations are first warned, then put on probation, and then dropped from the program if

they cannot complete the requirements or remedy their conduct. Within boundaries set by the graduate faculty, the AC is authorized to take account of individual circumstances and problems, and to grant extensions of deadlines and waivers of requirements.

Disciplinary Actions

- Written reprimand
- Imposition of reasonable terms and conditions on continued student status
- Probation
- Restitution
- Removal of the student from the course(s) in progress
- Failure to promote
- Withdrawal of an offer of admission
- Placement on Leave of Absence for a determined amount of time
- Suspension from the program
- Dismissal from the program
- Denial of a degree

Depending on the type and nature of the misconduct, the Division of Student Life may also have grounds to do one or more of the following:

- Reprimand
- Probation
- Suspension
- Expulsion
- Restitution
- A zero or failing grade on an assignment on an assignment/exam
- A lower grade or failure in the course
- Removal from course
- Enrollment restrictions in a course/program
- Conditions/terms of continuing as a student

Additional Information

Links for additional information regarding Academic Misconduct:

http://grad.wisc.edu/acadpolicy/#misconductacademic
http://www.students.wisc.edu/doso/students.html
http://students.wisc.edu/doso/misconductflowchart.html
http://students.wisc.edu/doso/docs/uws_chapter_14.pdf

Links for additional information regarding Non-Academic Misconduct:
http://grad.wisc.edu/acadpolicy/#misconductnonacademic
http://students.wisc.edu/doso/nonacadmisconduct.html
http://students.wisc.edu/doso/docs/NewUWS%2017.pdf
http://students.wisc.edu/doso/docs/NewUWS%2018.pdf

Links for additional information regarding Research Misconduct and Responsible Conduct:
https://grad.wisc.edu/acadpolicy/#responsibleconductofresearch

http://kb.wisc.edu/gsadminkb/page.php?id=34486
https://kb.wisc.edu/gsadminkb/search.php?cat=2907

GREIVANCE PROCEDURES

Grievance Procedures

If a student feels unfairly treated or aggrieved by faculty, staff, or another student, the University offers several avenues to resolve the grievance. Students' concerns about unfair treatment are best handled directly with the person responsible for the objectionable action. If the student is uncomfortable making direct contact with the individual(s) involved, they should contact the advisor or the person in charge of the unit where the action occurred (program or department chair, section chair, lab manager, etc.). For more information see the Graduate School Academic Policies & Procedures: Grievances & Appeals:
https://grad.wisc.edu/acadpolicy/#grievancesandappeals

Procedures for proper accounting of student grievances:

1. The student is encouraged to speak first with the person toward whom the grievance is directed to see if a situation can be resolved at this level.
2. Should a satisfactory resolution not be achieved, the student should contact the program's Grievance Advisor or Director of Graduate Study to discuss the grievance. The Grievance Advisor or Directory of Graduate study will facilitate problem resolution through informal channels and facilitate any complaints or issues of students. The first attempt is to help students informally address the grievance prior to any formal complaint. Students are also encouraged to talk with their faculty advisors regarding concerns or difficulties if necessary. University resources for sexual harassment, discrimination, disability accommodations, and other related concerns can be found on the UW Office of Equity and Diversity website: http://www.oed.wisc.edu/index.html.
3. Other campus resources include
    - The Graduate School - grad.wisc.edu
    - McBurney Disability Resource Center - mcburney.wisc.edu
    - Employee Assistance Office - eao.wisc.edu
    - Ombuds Office - ombuds.wisc.edu
    - University Health Services – uhs.wisc.edu
    - UW Office of Equity and Diversity - http://www.oed.wisc.edu/index.html
4. If the issue is not resolved to the student's satisfaction, the student can submit the grievance to the Grievance Advisor in writing, within 60 calendar days of the alleged unfair treatment.
5. On receipt of a written complaint, a faculty committee will be convened by the Grievance Advisor to manage the grievance. The program faculty committee will obtain a written response from the person toward whom the complaint is directed. This response will be shared with the person filing the grievance.
6. The faculty committee will determine a decision regarding the grievance. The Grievance Advisor will report on the action taken by the committee in writing to both the student and the party toward whom the complaint was directed within 15 working days from the date the complaint was received.
7. At this point, if either party (the student or the person toward whom the grievance is directed) is unsatisfied with the decision of the faculty committee, the party may file a written appeal. Either party has 10 working days to file a written appeal to the School/College.

8. Documentation of the grievance will be stored for at least 7 years. Significant grievances that set a precedent will be stored indefinitely.

The Graduate School has procedures for students wishing to appeal a grievance decision made at the school/college level. These policies are described in the Graduate School's Academic Policies and Procedures: https://grad.wisc.edu/acadpolicy/#grievancesandappeals.

REPORTING MISCONDUCT AND CRIME

Reporting Misconduct And Crime

The campus has established policies governing student conduct, academic dishonesty, discrimination, and harassment/abuse as well as specific reporting requirements in certain cases. If you have a grievance regarding unfair treatment towards yourself, please reference the procedures and resources identified above. If you learn about, observe, or witness misconduct or other wrongdoing you may be required to report that misconduct or abuse. Depending on the situation, it may be appropriate to consult with your advisor, Graduate Program Coordinator, or other campus resources (such as the UW Office of Equity and Diversity, Graduate School, Mc Burney Disability Resource Center, Employee Assistance Office, Ombuds Office, and University Health Services).

Research Misconduct Reporting

The University of Wisconsin-Madison strives to foster the highest scholarly and ethical standards among its students, faculty, and staff. Graduate students and research associates are among the most vulnerable groups when reporting misconduct because their source of financial support and the progress in their careers may be at risk by raising questions of wrongdoing. They are also often the closest witnesses to wrongdoing when it occurs and therefore must be appropriately protected from the consequences of reporting wrongdoing and be informed of their rights. Please find full details at http://www.grad.wisc.edu/research/policyrp/ReportingMisconduct.html.

Academic Misconduct Reporting

If you know a classmate is cheating on an exam or other academic exercise, notify your professor, teaching assistant or proctor of the exam. As a part of the university community, you are expected to uphold the standards of the university. Also, consider how your classmate's dishonesty may affect the overall grading curve and integrity of the program.

Sexual Assault Reporting

Faculty, staff, teaching assistants, and others who work directly with students at UW-Madison are required by law to report first-hand knowledge or disclosures of sexual assault to university officials, specifically the Office for Equity & Diversity or the Division of Student Life. This effort is not the same as filing a criminal report. Disclosing the victim's name is not required as part of this report. Please find full details at
http://www.oed.wisc.edu/sexualharassment/assault.html and
http://www.students.wisc.edu/doso/studassist.html#sexassault

Child Abuse Reporting

As a UW-Madison employee (under Wisconsin Executive Order #54), you are required to immediately report child abuse or neglect to Child Protective Services (CPS) or law enforcement if, in the course of employment, the employee observes an incident or threat of child abuse or neglect, or learns of an incident or threat of child abuse or neglect, and the employee has reasonable cause to believe that child abuse or neglect has occurred or will occur. Volunteers working for UW-Madison sponsored programs or activities are also expected to report suspected abuse or neglect. Please find full details at http://www.oed.wisc.edu/childabuse/.

Reporting and Response to Incidents of Bias/Hate

The University of Wisconsin-Madison values a diverse community where all members are able to participate fully in the Wisconsin Experience. Incidents of Bias/Hate affecting a person or group create a hostile climate and negatively impact the quality of the Wisconsin Experience for community members. UW-Madison takes such incidents seriously and will investigate and respond to reported or observed incidents of bias/hate. Please find full details at http://students.wisc.edu/doso/biasreporting.html and http://www.students.wisc.edu/rights/what-if-i-witness-or-experience-a-bias-related-incident/

INFORMATION FOR NEW STUDENTS

Orientation

The CBMS program holds a brief, morning-long orientation in the fall and as needed for the spring and summer terms to inform students of program requirements and introduce them to faculty, staff and other current students. Expect to receive a packet of information to assist you with graduate studies.

Activate your NetID

You will need your NetID and password to access the My UW-Madison portal at my.wisc.edu. To activate your NetID, click on the ACTIVATE NETID button from the My UW Madison login screen. Enter your 10-digit student campus ID number and birthdate. The NetID you create and password you enter are keys to your access to the MyUW portal, so make a record of it and keep it private. If you have forgotten your NetID and password, contact the DoIT Help Desk at 608-264-4357.

University/Net ID (Wiscard)

After you have registered and that status can be verified through the system, you may obtain a free university photo ID card from the Wiscard Office in room 149 Union South, 1308 W. Dayton St., 8:30 am to 5:00 pm weekdays. You can call 608-262-3258 or email wiscard@union.wisc.edu to determine if your name is in the system before you go. You will be required to show some other form of photo ID, such as a driver's license or passport. The card is free, but a fee of $25 will be charged for replacements. Wiscard also provides access to libraries, recreation facilities and other campus services. It now also serves as a passkey for electronic locks.

Tuition and Fees

Students supported as RAs or TAs do not pay tuition but must pay segregated fees, which are $607.40 for a full load (8-15 credits) for the fall 2016-2017 semester ($120.55 per credit).

Please pay these fees on time (as indicated in your My UW student center) or you will be required to pay an additional late fee of $100. You have the option of paying on-line through your MyUW portal or in person at the Bursar's Office at 333 East Campus Mall, # 10501, Monday through Friday, 7:45 a.m. to 4:00 p.m. Check your student account invoice for amount due and payment deadlines. Failure to receive an invoice will not be accepted as a reason for failure to comply with payment deadlines. If you do not receive an invoice, contact the Bursar's Office at 608-262-3611 and be prepared to provide your campus id number.

CBMS graduate students are not charged tuition or fees if they are supported by a scholarship, traineeship or fellowship that pays tuition and fees on their behalf.

If you receive a tuition bill that you believe is in error, please contact the program coordinator or your department administrator immediately for assistance.

International Students
Students who are non-US nationals must contact and register with University of Wisconsin-Madison International Student Services (ISS) upon arrival and in the event of a change in status. ISS is located at 716 Langdon Street. The ISS web site is iss.wisc.edu. There is a mandatory orientation for all incoming international students. Any change in status must be reported to ISS as soon as possible.

Note that all International students are now being assessed an extra $75 fee per semester to help cover the costs of visa processing.

Bus Pass
After you have obtained a university ID you may pick up your free bus pass beginning the week before classes start each term at 10 am on the fourth floor of the Student Activity Center, 333 East Campus Mall and the Union South Box Office. Both locations will be open M –F 10:00 am to 6:00 pm. The pass should be good starting the day of pick up. Lost or stolen passes can be replaced for $20. During break times you may pick up your pass at StudentPrint, located on the third floor of the Student Activity Center at 333 East Campus Mall. Schedules, rates, maps, etc., for Madison Metro bus system can be accessed on-line at http://www.cityofmadison.com/metro/. Google Maps on your PC or mobile device is also a handy tool for finding your way around Madison. There are also multiple apps for your mobile phone that provide current information on the location and timing of buses. Note that due to recent abuses, the bus driver may periodically ask to see your WisCard. Additional information may be accessed at http://www.asm.wisc.edu/resources/buspass/.

Mail
Incoming mail is sorted and distributed daily in all departments. Outgoing campus and U.S. or international mail is usually picked up from most departmental offices in designated locations (ask departmental staff). Use brown "interoffice" envelopes for campus mail and ask staff for the location of the pickup/drop off baskets.

Telephones
Campus telephones require that you dial a 9 first for local or 800 or other toll-free numbers and an 8 before a long-distance number (e.g., 8-1-333-333-3333). Calls to campus phones, including dorms, require only the last five digits of the number.

Keys/Passcard
Access to buildings and laboratories varies throughout campus. Speak first to your mentor and lab mates to determine what your access needs will be. You may need to have your ID card activated as a pass key for electronic locks.

Computing Resources
UW-Madison provides a free e-mail account, personal web space, and access to the Internet as well as excellent campus libraries, biological databases, and many other sites and resources. Resource information can be found at https://it.wisc.edu/.

You may sign up for your free WiscMail account from DoIT by activating your NET ID in My UW (https://login.wisc.edu/idp/Authn/UserPassword). We encourage you to switch to an @wisc.edu domain e-mail as soon as possible. Many professors send large attachments via e-

mail and commercial web-based e-mail programs such as Hotmail and Yahoo frequently reject these files or any e-mails sent to multiple recipients.

You may download a variety of free software, including a browser, virus protection, internet connection software, etc., from the DoIT web site (http://www.doit.wisc.edu/). Many popular software packages, computers and accessories may be purchased from DoIT at substantially reduced prices. In addition, there are extensive university, departmental, and investigator-owned computer resources as well as specialized campus or departmental resources, e.g., for computer graphics, molecular modeling or sequencing. Macintosh computers and PCs are frequently available in many laboratories as shared or individual resources.

Please contact the IT person responsible for computing support in your mentor's home department to obtain an IP address if needed and to ensure that your personal computer or laptop has up-to-date virus protection. **Note** that IT personnel will not hesitate to stop internet access or shut down an infected computer. Downloading illegal music, videos or movies is not permitted.

Wireless access to the internet is widely available. UW NetID users have access to UWNet (http://www.doit.wisc.edu/services/wireless-uwnet/) and eduroam, a secure worldwide network developed for the international research and education community. Access details for multiple devices may be found at https://kb.wisc.edu/helpdesk/page.php?id=25020

Payroll

Payroll checks are issued once per month on the first day of the month. Your pay is based on an as-earned basis. Thus, work performed in January is paid on February 1, and so on.

PLEASE DO NOT FORGET THERE ARE INCOME TAXES ON YOUR PAY! We cannot assume responsibility for taxes to the federal government or the State of Wisconsin for your income. If you are supported by a third party (e.g., training grant or fellowship) your taxes are generally not withheld and you may be required to file quarterly taxes.

Unless you have been informed otherwise, you will have to pay student fees each semester you are registered. The cost will change depending on the number of credits you take and the fee structure. Check My UW (after signing in) for fee assessments or check the Registrar's web page on tuition and fees for graduate students (http://registrar.wisc.edu/tuition_&_fees.htm).

You may have your payroll deposited directly into whichever account you set up at a local financial institution in Madison. Forms to do this are available on the web. You will be informed how to access these at orientation.

Health Insurance

You must apply for health care coverage and submit your forms to the benefits coordinator in your department or college by the end of the month prior to the start of the following month and within the month of your initial start date. Single and family healthcare are available at a minimal cost and are automatically deducted from your monthly paycheck. Study the Graduate Assistant Health Insurance web site at http://www.bussvc.wisc.edu/ecbs/benefits/newemp-introduction-G.html to see the various options and contact information for the different plans available. We strongly suggest that you attend one of the benefit seminars for incoming graduate assistants. Details on when they are held are provided on the page referenced above and will be

provided at the orientation.

Welcome Week

The CBMS program and the Graduate School holds a variety of events the week before the beginning of each semester to welcome and help acclimate new graduate students to campus. We encourage all students to attend any or all of these events.

APPENDIX: REQUIRED CBMS FORMS

All forms, including this Guidebook, are available for download at
http://www.vetmed.wisc.edu/ms-phd/current-students/documents-and-forms/

Master's Degree Forms:

Certification
Annual Meeting
Final Defense Evaluation form: Note that the official warrant must be requested though the graduate coordinator.

PhD Degree Forms:

Certification
Preliminary Examination A, Evaluation form
Preliminary Examination B Evaluation form: Note that the official warrant must be requested though the graduate coordinator
Annual Meeting Research Project Report
Final Defense Evaluation form: Note that the official warrant must be requested though the graduate coordinator.

MASTER'S DEGREE FORMS

Comparative Biomedical Sciences
University of Wisconsin-Madison

Certification of Candidate for MS Degree

All information on this form, with the exception of signatures, must be typed.

1. **Name:** _____

2. **Date of Entry:** _____

3. **Plan of Study:**

Coursework completed or to be completed at UW-Madison

Course No., Department, Course Title	Credits	Grade (if completed)
TOTAL CREDITS		
The following do not count toward the 9 credit course requirement:		
Advanced Seminar; 930, PBS	2	
Thesis Research; 990, PBS		

Request for transfer of credits for advanced coursework completed at other institutions: (Append letter of request from major professor, syllabus or equivalent description of coursework, and official transcript for degree program in which course was taken if not taken at UW-Madison).

Course No., Department, Course Title	Credits	Grade	Institution
(applied toward Major)			

4. **Research Proposal:**

On separate attachment (not exceeding two typed pages), briefly outline: (1) the hypothesis and objectives of the proposed research project; (2) the experimental design that will be used; and (3) how each of the graduate committee member's area of research expertise will assist your research program.

5. **Graduate Committee Members:**

Major Professor **Approval of Certification**

Name: _____ Signature: _____
Department: _____

Committee Members (Voting)

Name: _____ Signature: _____
Department: _____

Name: _____ Signature: _____
Department: _____

Committee Members (Optional)

Name: _____ Signature: _____
Department: _____
(Voting member [Yes or No])

6. **Have you completed an Individual Development Plan (IDP)?** ____ Yes ____ No

7. **Academic Committee Action:** **Date Certification Completed:** _____

Approve: _____ Disapprove: _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

COMPARATIVE BIOMEDICAL SCIENCES GRADUATE DEGREE PROGRAM
Student Annual Research Progress Report: MS Degree

Students in the CBMS Program are required to meet with their graduate committees at least once each year. MS students should meet with their committees near the anniversary of Certification. The purpose of each meeting is for the student to demonstrate satisfactory research progress toward achievement of their degree. A short progress report (1 – 10 pages) should be prepared by the student and delivered to the committee members at least one week before the scheduled meeting. During the meeting, the student is expected to give a brief oral presentation of research progress. Additional requirements may be added at the discretion of the graduate committee.

This form should be filled out by the student's mentor in consultation with the committee and returned to the program office for the student's file.

Student Name: _____

Has the student completed an IDP in the past year? _____ Yes _____ No

Has the student presented his/her work in meetings or published in appropriate journals?
_____ Yes _____ No

Please indicate your evaluation of the student's progress over the past year as indicated below.

Assessment Criteria (circle one)	**Does Not Meet Expectations**	**Meets Expectations**	**Exceeds Expectations**
Overall: The student is making progress to degree, overcoming weaknesses, and exhibiting success as an independent scientist.	1 2	3 4	5 6
Scholarship: The student has maintained an acceptable academic record, performed well in preliminary exams (if applicable), and shown intellectual capacity with regard to synthesis of scientific concepts/hypotheses, design and interpretation of experiments, and breadth of knowledge. The student is sufficiently focused in his/her project.	1 2	3 4	5 6

Communication skills: The student has demonstrated the ability to present high quality presentations and is able to write summaries of their findings. This includes articulation of complex ideas, organizing thoughts, and presenting sufficient information to allow an audience to draw conclusions. Language skills are adequate.	1 2	3 4	5 6
Scientific aptitude: The student is capable of carrying out experiments, can identify problems in experimental design, analyze data, and assess the statistical significance of the data.	1 2	3 4	5 6
Overall Evaluation (circle one)	**1 2**	**3 4**	**5 6**

Please indicate any recommendations made to the student to improve aspects mentioned above in which they do not meet expectations.

Mentor Signature _____Date _____

Evaluation Rubric for **Thesis and Thesis Defense for MS** in the
Comparative Biomedical Sciences Graduate Program,
University of Wisconsin-Madison

Name of the Candidate: _____ Date of Examination_____

Each committee member fills in their independent assessment of the student's performance on this exam under the criteria listed below. All forms must be returned to the program office.

Assessment Criteria (circle one)	**Does not meet Expectations**	**Meets Expectations**	**Exceeds Expectations**
Research Problem: Clearly states the research problem in the context of the literature in the area of study. Provides a strong justification for undertaking the research and effectively articulates the potential impact of proposed research.	1 2	3 4	5 6
Literature: Student demonstrates critical thinking and the ability to synthesize relevant literature and define the knowledge gaps in the field of study. Clearly articulates how the students' research will address this knowledge gap and advances the field.	1 2	3 4	5 6
Hypothesis: Clearly states the hypotheses that are based on scientific literature and/or preliminary findings.	1 2	3 4	5 6
Research Methods/Strategy: Applies robust research methods/tools to test the hypotheses and find solution(s) to the defined research problem. Provides clear explanation of methodological choices and discusses the potential pitfalls of the chosen methods.	1 2	3 4	5 6
Data Analysis and Interpretation: Data analysis is rigorous, objective, and thorough and applies appropriate statistical tools. Makes valid and nuanced interpretation of data within the constraints of experimental caveats.	1 2	3 4	5 6
Conclusions: Provides insightful discussion of conclusions in the context of literature to draw connections or point to disagreements with published work. Provides a compelling argument pertaining to the importance of the findings in closing the knowledge gap in literature (originally identified).	1 2	3 4	5 6
Communication: Communicates research plan with clarity and professionalism in both written and oral forms.	1 2	3 4	5 6

Publications: Research work has the potential for publication in appropriate peer-reviewed journals.	1 2	3 4	5 6
Overall Evaluation (circle one)	**1 2**	**3 4**	**5 6**

Overall Strengths (if needed, please add additional sheet for comments)

Areas for Growth (if needed, please add additional sheet for comments)

Signature _____ **Date** _____

PHD DEGREE FORMS

Comparative Biomedical Sciences
University of Wisconsin-Madison

Certification of Candidate for PhD Degree

All information on this form, with the exception of signatures, must be typed.

1. **Degree Candidate:** _____

2. **Date of Entry:** _____

   Institution Name and Completion Date of previous advanced degree (e.g., MS, DVM): _____

3. **Study Plan** Degree credits must total 20 or more (does **not** include 930 seminars)

Coursework completed or to be completed at UW-Madison

Course No., Department, Course Title	Credits	Grade (if completed)
Advanced Seminar; 930, PBS	4	
Thesis Research; 990, PBS		

Course work for Focused Minor if requested (minor not required):

Course No., Department, Course Title	Credits	Grade (if completed)

Request for transfer of credits for coursework completed at other institutions or at other programs on campus: (append letter of request from major professor, syllabus or equivalent description of coursework, and official transcript for degree program in which course was taken).

Course No., Department, Course Title	Credits	Grade	Institution

4. **Research Proposal:**

   On separate attachment (not exceeding two typed pages), briefly outline: (1) the hypothesis and objectives of the proposed research project; (2) the experimental design that will be used; and (3) how each of the graduate committee member's area of research expertise will assist your research program.

5. **Graduate Committee Members:**

Major Professor **Approval of Certification**

Name: _____ Signature: _____
Department: _____

Committee Members (Voting)

Name: _____ Signature: _____
Department: _____

Name: _____ Signature: _____
Department: _____

Name: _____ Signature: _____
Department: _____

Name: _____ Signature: _____
Department: _____

Committee Members (Optional)

Name: _____ Signature: _____
Department: _____
(Voting member [Yes or No])

6. **Have you completed an Individual Development Plan (IDP)?** _____ Yes ____No

7. **Academic Committee Action:** **Date Certification Completed:** _____

Approve: _____ Disapprove: _____

Evaluation Rubric for **Preliminary Examination A** for PhD in the
Comparative Biomedical Sciences Graduate Program
University of Wisconsin-Madison

Name of the Candidate: _____ Date of Examination _____

Each committee member fills in their independent assessment of the student's performance on the questions posed for this exam under the criteria listed below. All forms should be returned to the program office.

Assessment Criteria (circle one)	**Does not meet Expectations**	**Meets Expectations**	**Exceeds Expectations**
Student understands the questions and answers all parts of the questions thoroughly.	1 2	3 4	5 6
Conclusions and statements in the answers are accurate and supported by published relevant literature.	1 2	3 4	5 6
Written and oral answers demonstrate critical thinking and integration of knowledge in the students' area of study.	1 2	3 4	5 6
Answers demonstrate proficiency and integration of knowledge in related but outside of students' area of study.	1 2	3 4	5 6
Student articulates ideas and concepts effectively in writing.	1 2	3 4	5 6
Student demonstrates excellent communication skills orally.	1 2	3 4	5 6
Answers are well organized and written in grammatically correct sentences without spelling errors.	1 2	3 4	5 6
Overall Evaluation (circle one)	**1 2**	**3 4**	**5 6**

Overall Strengths (if needed, please add additional sheet for comments)

Areas for Growth (if needed, please add additional sheet for comments)

Signature _____ **Date** _____

Evaluation Rubric for **Preliminary Examination B** for PhD in the
Comparative Biomedical Sciences Graduate Program
University of Wisconsin-Madison

Name of the Candidate: _____ Date of Examination_____

The mentor fills in the committee's assessment of the student's performance on this exam under the criteria listed below. The form should be forwarded to the program office.

Assessment Criteria (circle one)	**Does not meet Expectations**	**Meets Expectations**	**Exceeds Expectations**
States the research problem in the context of current state of the field. Provides a strong justification for undertaking the research and effectively articulates the potential impact of proposed research.	1 2	3 4	5 6
Develops novel and testable hypotheses that are based on scientific literature and/or preliminary findings.	1 2	3 4	5 6
Demonstrates critical thinking and the ability to synthesize, integrate and critique scientific literature in the context of the research problem	1 2	3 4	5 6
Outlines sound research strategy that includes use of appropriate controls and state-of-the-art methodologies to test the hypotheses (solve the research problem).	1 2	3 4	5 6
Discusses potential pitfalls of the proposed methodologies and considers alternative approaches. Provides a robust plan for analysis and interpretation of data.	1 2	3 4	5 6
Communicates the research plan with clarity in written form.	1 2	3 4	5 6
Communicates the research plan with clarity orally.	1 2	3 4	5 6
Aware of the broader implications of the proposed research.	1 2	3 4	5 6
Overall Evaluation (circle one)	**1 2**	**3 4**	**5 6**

Overall Strengths (if needed, please add additional sheet for comments)

Areas for Growth (if needed, please add additional sheet for comments)

Mentor Signature _____ **Date** _____

COMPARATIVE BIOMEDICAL SCIENCES GRADUATE DEGREE PROGRAM
Student Annual Research Progress Report: PhD Degree

Students in the CBMS Program are required to meet with their graduate committees at least once each year. MS students should meet with their committees near the anniversary of Certification. PhD students should meet with their committees near the anniversary of Prelim B. The purpose of each meeting is for the student to demonstrate satisfactory research progress toward achievement of their degree. A short progress report (1 – 10 pages) should be prepared by the student and delivered to the committee members at least one week before the scheduled meeting. During the meeting, the student is expected to give a brief oral presentation of research progress. This form should be returned to the program office for the student's file.

Additional requirements may be added at the discretion of the graduate committee.

Student's Name: _____

Date Dissertator Status Attained (if applicable) _____

Has the student completed an IDP in the past year? _____ Yes _____ No

Has the student presented their work in meetings or published in appropriate journals? _____ Yes _____ No

Please indicate your evaluation of the student's progress over the past year as indicated below.

Assessment Criteria (circle one)	**Does Not Meet Expectations**	**Meets Expectations**	**Exceeds Expectations**
Overall: The student is making progress to degree, overcoming weaknesses, and exhibiting success as an independent scientist.	1 2	3 4	5 6
Scholarship: The student has maintained an acceptable academic record, performed well in preliminary exams (if applicable), and shown intellectual capacity with regard to synthesis of scientific concepts/hypotheses, design and interpretation of experiments, and breadth of knowledge. The student is sufficiently focused in his/her project.	1 2	3 4	5 6

Communication skills: The student has demonstrated the ability to present high quality presentations and is able to write summaries of their findings. This includes articulation of complex ideas, organizing thoughts, and presenting sufficient information to allow an audience to draw conclusions. Language skills are adequate.	1 2	3 4	5 6
Scientific aptitude: The student is capable of carrying out experiments, can identify problems in experimental design, analyze data, and assess the statistical significance of the data.	1 2	3 4	5 6
Overall Evaluation (circle one)	**1 2**	**3 4**	**5 6**

Please indicate any recommendations made to the student to improve aspects mentioned above in which they do not meet expectations.

Graduate Committee Signatures Approving Report:

Major Professor: _____

_____

_____

_____

_____

_____

Evaluation Rubric for **Dissertation and Dissertation Defense for PhD** in the Comparative Biomedical Sciences Graduate Program, University of Wisconsin-Madison

Name of the Candidate: _____ Date of Exam _____

The mentor fills in the committee's assessment of the student's performance on this exam under the criteria listed below. The form should be forwarded to the program office.

Assessment Criteria (circle one)	**Does not meet Expectations**	**Meets Expectations**	**Exceeds Expectations**
Research Problem: Clearly states the research problem in the context of the literature in the area of study. Provides a strong justification for undertaking the research and effectively articulates the potential impact of proposed research.	1 2	3 4	5 6
Literature: Student demonstrates critical thinking and the ability to synthesize relevant literature and define the knowledge gaps in the field of study. Clearly articulates how the students' research will address this knowledge gap and advances the field.	1 2	3 4	5 6
Hypothesis: Clearly states the hypotheses that are based on scientific literature and/or preliminary findings.	1 2	3 4	5 6
Research Methods/Strategy: Applies robust research methods/tools to test the hypotheses and find solution(s) to the defined research problem. Provides clear explanation of methodological choices and discusses the potential pitfalls of the chosen methods.	1 2	3 4	5 6
Data Analysis and Interpretation: Data analysis is rigorous, objective, and thorough and applies appropriate statistical tools. Makes valid and nuanced interpretation of data within the constraints of experimental caveats.	1 2	3 4	5 6

Conclusions: Provides insightful discussion of conclusions in the context of literature to draw connections or point to disagreements with published work. Provides a compelling argument pertaining to the importance of the findings in closing the knowledge gap in literature (originally identified).	1	2	3	4	5	6
Communication: Communicates research plan with clarity and professionalism in both written and oral forms.	1	2	3	4	5	6
Publications: Research work has the potential for publication in appropriate peer-reviewed journals.	1	2	3	4	5	6
Independence: Demonstrates the ability to conceptualize and conduct independent research and make original contributions to the field of study.	1	2	3	4	5	6
Impact: Thesis research represents an original contribution to the area of study.	1	2	3	4	5	6
Overall Evaluation (circle one)	**1**	**2**	**3**	**4**	**5**	**6**

Overall Strengths (if needed, please add additional sheet for comments)

Areas for Growth (if needed, please add additional sheet for comments)

Mentor Signature _____**Date** _____