

DEPARTMENT OF MICROBIOLOGY

**GRADUATE STUDIES
HANDBOOK
2007-2008**

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Faculty

Faculty Member	Phone	Office/Lab(s)*	Status [#]
1. Stephen Abedon	5-4343	Mansfield Campus	Graduate Faculty
2. Brian M.M. Ahmer	2-1919	934/939/944 Riffe	Graduate Faculty
3. Birgit Alber	7-4443	417	Graduate Faculty
4. Juan Alfonzo	2-0004	440/446	Graduate Faculty
5. Irina Artsimovitch	2-6777	216/200/234/294 Aronoff	Graduate Faculty
6. Neil R. Baker	2-3342	557	Graduate Faculty
7. Paula Bryant	7-7694	909/911/912/957	Graduate Faculty
8. Charles J. Daniels	2-4599	412/428	Graduate Faculty
9. Kurt Fredrick	2-6679	559/575	Graduate Faculty
10. Darrell R. Galloway		currently on leave	Graduate Faculty
11. John S. Gunn	2-6036	MVIMG 1006 BRT	Graduate Faculty Joint Appointment
12. Tina M. Henkin	8-3831	904/900/902/905/906 Riffe	Graduate Faculty
13. Michael Ibba	2-2120	556/555	Graduate Faculty
14. Pravin T. Kaumaya	8-7020	Obstetrics & Gynecology 316/300/330 Cancer Ctr	Graduate Faculty Joint Appointment
15. Joseph A. Krzycki	2-1578	914/909/911-12/932 Riffe	Graduate Faculty
16. Jesse Kwiek	2-3256	1008 BRT	Graduate Faculty
17. Richard F. Mortensen	2-3360	550	Graduate Faculty, Emeritus
18. Robert S. Munson	722-2778	Pediatrics Children's Hospital	Graduate Faculty Joint Appointment
19. Chad A. Rappleye	7-2718	540/546	Graduate Faculty
20. John N. Reeve	2-2301	376/405/468/480	Graduate Faculty Chair
21. Abhay R. Satoskar	2-3243	218/214/220/226/232 Aronoff	Graduate Faculty
22. Larry Schlesinger	3-5671	Internal Medicine N1149 Doan Hall	Graduate Faculty Joint Appointment
23. Stephanie Seveau	7-7671	640/643	Graduate Faculty
24. F. Robert Tabita	2-4297	420/423/426/428 700/2/4/5/6/7/9/11/14 Riffe	Graduate Faculty Eminent Scholar
25. Olli H. Tuovinen	2-3379	452	Graduate Faculty
26. Hua Wang	2-6281	Food Science & Technology 110 Parker	Graduate Faculty Joint Appointment
27. Marshall V. Williams	2-0717	Mol Vir, Imm, & Med Gen 2074 Graves	Graduate Faculty Joint Appointment
28. Ahmed E. Yousef	2-7814	Food Science & Technology 217 Parker	Graduate Faculty Joint Appointment
29. Bruce S. Zwilling			Graduate Faculty, Emeritus

* Room numbers are Biological Sciences Building unless indicated

Unless noted, all Graduate Faculty are Category P status

I. HANDBOOK

A. PURPOSE OF HANDBOOK

This handbook describes and presents the guidelines, rules of operation, and policies of the Graduate Program in Microbiology. It serves as the central source of information for both graduate students and faculty for the operation of the Program.

B. RELATION TO THE GRADUATE SCHOOL

The Graduate Program in Microbiology conforms to University rules as published in the Graduate School Handbook <http://www.gradsch.ohio-state.edu/html/PDF/Handbook.pdf/>. It follows the policies, rules and guidelines found in the Graduate School Bulletin.

C. GRADUATE STUDIES COMMITTEE

1. The Graduate Studies Committee is the executive committee of the Graduate Faculty of the Program. It conducts routine matters related to graduate work and monitors the functioning of the Program. It coordinates graduate work in the program, assists members of the Graduate Faculty and represents the Program in performing specific functions related to operations of the Graduate School as defined in the Graduate School Bulletin and the Graduate School Handbook.

2. The Graduate Studies Committee consists of at least three Graduate Faculty, one of whom serves as Chairperson, and one Graduate Student. All members are appointed by the Microbiology Department Chairperson, in consultation with the Graduate Faculty, for terms designated by the Department Chairperson.

3. Committee members are as follows:

Dr. Michael Ibba, Graduate Chair
 Dr. Juan Alfonzo
 Dr. Irina Artsimovitch
 Dr. Stephanie Seveau
 Dr. Abhay Satoskar

Student Representative

D. PROGRAMS:

Students are strongly encouraged to apply for the Ph.D. program; however, students may apply for the Master of Science degree program, either Plan A (Thesis) or Plan B (non-Thesis).

Fellowships, teaching associateships and research associateships are available for qualified Ph.D. students. Every effort is made to provide financial support to Ph.D. students throughout their graduate programs. Master's program students may be provided with financial assistance. Applicants to the Masters programs should consult with the Graduate Studies Chair concerning the prospects for support. The decision to offer assistance to Masters students is made on an individual basis and is dependent on the qualifications of the student and the availability of funds. Graduate faculty with joint appointments who act as Advisors of Microbiology Ph.D. graduate students are expected to support their students as research associates.

Because each student is required to make reasonable and satisfactory progress toward the graduate degree during each quarter of enrollment, any student enrolled in the Microbiology Graduate Program and who holds a GRA, GTA, GAA, fellowship, or scholarship appointment is prohibited from additional outside employment without the knowledge and written consent of the Dissertation Advisor. Failure to comply with this rule may result in termination of support.

E. ENTRANCE REQUIREMENTS:

1. A four-year U.S. baccalaureate degree or its equivalent is required, with at least a 3.0 GPA. The following courses, offered at OSU, or courses offered at other institutions that are equivalent in content, are prerequisites to enter the program:

- a. Calculus: Math 151, 152
- b. General Physics: Physics 111, 112, 113
- c. General Chemistry: Chem 121, 122, 123
- d. Organic Chemistry: Chem 245, 251, 252
- e. Biological Chemistry: Biochem 511
- f. General Biology: Biology 113, 114

2. The Graduate Studies Committee decides if academic deficiencies exist at the time of a student's admission. Courses assigned to remedy deficiencies are an additional part of a student's program. Grades obtained in these courses are not included in calculation of graduate grade point averages, and do not replace other course requirements.

3. All applicants must take the Graduate Record Examination (GRE); subject tests are encouraged, but not required. The Test of English as a Foreign Language (TOEFL) and the Test of Spoken English (TSE) are required for all students whose native language is not English. The TSE is also required from students from Puerto Rico, other non-English-speaking U.S. territories, and some Caribbean countries not required to take the TOEFL, e.g., Trinidad and Tobago, and Jamaica. A passing grade of 60 on the TSE is required for a student to receive support as a Graduate Teaching Associate. Students with lower TSE scores, must have their spoken English ability certified by the OSU Spoken English Program.

F. ADMISSION PROCEDURE

1. Applicants must submit a formal application to be considered for admission to the program. Application packets can be obtained from the Office of Graduate Admission, Third Floor, Lincoln Tower, 1800 Cannon Drive, Columbus, OH 43210. Students may also apply on-line at <http://www.osu.edu/prospective>.

2. A formal application consists of:

- 1) A completed application form
- 2) The nonrefundable application fee
- 3) Two (2) original copies of transcripts or record of marks for each university-level school attended. Include English translations of each of any foreign documents.
- 4) Official GRE General Test scores
- 5) Official TOEFL scores, if applicable
- 6) Official TSE scores, if applicable
- 7) A statement of intent (statement of purpose)
- 8) Three (3) letters of recommendation written on recommenders' original letterhead stationery, accompanied by completed Ohio State *Reference Forms*.

1, 2, 3, 4, 5, and 6 are sent to the Admissions Office, Third Floor, Lincoln Tower, 1800 Cannon Drive, Columbus, Ohio 43210. When possible, photocopies should also be sent to the Graduate Studies Committee Chairperson, Dept. of Microbiology to facilitate processing of the application.

Items 7 and 8 are sent only to the Graduate Studies Committee Chairperson, Dept. of Microbiology, 484 W. 12th Avenue, Columbus, Ohio 43210.

G. ADVISORS

1. Choosing an Advisor

The Graduate Studies Chairperson serves as a temporary advisor for incoming students, and assists the students in choosing courses and in initiating their graduate program. In addition to course work and teaching, all incoming

graduate students will participate in an orientation program during the first five weeks of the Autumn Quarter. The orientation consists of brief presentations by the individual faculty members on their research programs and presentations by departmental staff on the use of departmental equipment and facilities. During this time students are assigned temporary desks in one of the research laboratories. Students are also strongly encouraged to visit faculty members they are considering for rotations or permanent location to obtain additional information. At the end of the orientation period students can choose to do three five-week rotations in laboratories of interest. Alternatively, students who have made contact with an individual faculty member prior to arriving on campus can petition the Graduate Studies Committee to waive the rotations. In this latter case both the student and faculty member must write a letter of petition; this is to ensure that all parties are aware of the decision and are in agreement. Advisors who agree to accept a student without rotations must provide the first four quarters of support for the student. For those students participating in rotations, rotation assignments are made by the Graduate Studies Committee based on ranked choices by the students and available space in research laboratories. At the end of the rotations, rotating students submit a ranked list of three potential Advisors to the Graduate Studies Chairperson, who will consult with the faculty members before making laboratory assignments. The choice of an Advisor must be the result of mutual agreement between student and Advisor.

The Advisor has the primary responsibility of overseeing the graduate student's choice of coursework, and provides advice in the student's conduct of study and research. An M.S. Advisor must have at least Category M Graduate Faculty status; Ph.D. Advisors must be Category P. All current Microbiology Graduate Faculty hold Category P status. Category M Faculty members can serve as Ph.D. advisors under the supervision of a Category P faculty member.

2. Changing Advisors

The Advisor for a Ph.D. candidate makes a commitment to the student to oversee progress of the student's laboratory research and class work. The student makes a commitment as an apprentice scientist to undertake laboratory research on a project to which they mutually agree. This association of student and Advisor is a substantial commitment of time and resources by both parties. The obligation between both parties should compel students and faculty to seriously consider their choices in this regard.

Students choose an Advisor whom they deem appropriate for their specific scientific interests. Despite careful consideration, errors in judgment may be made and the student may wish to change Advisors. Students should be aware that changing laboratories will almost always result in lengthening the time before the Ph.D. is completed. In the event that a student wishes to change laboratories, the following protocol will be followed. The student may wish to first discuss issues with the current Advisor. If a change in Advisors is still desired, the student must meet with and explain the situation to the Graduate Studies Chairperson. The student must not meet with other potential Advisors within the Department. The Graduate Studies Chairperson will discuss the concerns of the student with the current Advisor. If BOTH the student and the Advisor agree, the Graduate Studies Chairperson will arrange a meeting of the student, Advisor and Graduate Studies Chair or designated representative to see if a solution may be found. If after consultation of the Graduate Studies Chairperson with the Advisor and student a solution cannot be found, the student may discuss the possibility of changing laboratories with other faculty members within the Department.

Research projects will not be transferred to another laboratory without the permission of the current Advisor. The transferring student's dissertation will be based on experiments performed under the supervision of the new Advisor.

H. ADVISORY COMMITTEES

Each student must have a Advisory Committee consisting of the Advisor and at least three other graduate faculty members, two of whom must be from the Department of Microbiology. The Advisor, in conjunction with the student, selects committee members; the Advisor will be Chair of the committee. The Advisory Committee is formed no later than the end of the first year of graduate study. The Graduate Studies Committee Chairperson must be notified, in writing, of the composition of the Advisory Committee. If a change in the composition of the Advisory Committee (or Dissertation Committee) is desired, the proposed change must be submitted to the Graduate Studies Committee for approval.

I. REGISTRATION

Students are expected to enroll as full time students every quarter (12 credit hours per quarter, or 9 credit hours with a 50% Graduate Associate appointment). During Summer Quarter, 7 credit hours are taken by those students with GAs. After passing the Candidacy Examination, students must register for 12 credit hours each quarter, including summer quarter. Graduate Fellows must register for 15 credit hours each quarter. Part time registration is permitted only with approval of the Graduate Studies Committee. Students are expected to complete all required classroom work within ten quarters after initial enrollment.

Graduate students who do not enroll in the Graduate School for longer than one year, at any time during their Ph.D. program, are considered to have left the Program and must petition the Graduate Studies Committee for re-enrollment, unless prior arrangement has been made with the Advisor and Graduate Studies Committee.

J. SATISFACTORY PROGRESS AND ACADEMIC PROBATION

Satisfactory progress toward completion of the Plan A Master's and Ph.D. degrees requires evidence of sustained progress in research, as measured by Satisfactory (S) grades in Micro. 999, and completion of required course work. Graduate students in all programs must maintain an overall B (3.0) average. Only those courses in which the student has earned a grade of B or better are counted toward the program requirements. If a student's GPA falls below 3.0, the student is considered to be on academic probation even if formal notification has not been received from the Graduate School. As outlined in Section 4 of the Graduate School Handbook, the Graduate School formally places a student on academic probation when the student has a cumulative point hour ratio (CPHR) of less than 3.0 and the student has attempted 15 or more hours of graduate credit. However, the Department of Microbiology considers a student to be on academic probation when the student's CPHR is below 3.0, regardless of the number of credit hours attempted by the student. At the beginning of the first quarter of academic probation the record of the student will be reviewed by the Graduate Studies Committee and the student informed of the actions which will be taken if the student does not attain a 3.0 CPHR by the end of the quarter.

During each quarter of academic probation the Graduate Studies Committee will review the student's record. The student's Advisor should attend these meetings to provide counsel either in favor of or against retaining the student. If the committee feels that sufficient progress has been made in restoring the student's CPHR to 3.0, the student will be allowed to continue in the program. In accordance with the Graduate School Handbook, the Graduate Studies Committee may deny graduate teaching associateship support to students on probation. Reinstatement of support may be approved when the student attains a CPHR of 3.0 or better. Most importantly, a student will be dismissed from the graduate program if she/he fails to restore their CPHR to 3.0 within three quarters of being placed on probation, or if she/he is placed on probation for any three quarters before completing the Candidacy Exam. Further information on academic probation may be found in section 4 of the Graduate School Handbook.

K. TEACHING

All graduate students must gain teaching experience through undergraduate classroom/laboratory instruction by serving as a GTA for a minimum of two quarters. As soon as the appointment is made, each GTA should check with the instructor in charge of the course for instructions prior to the beginning of the quarter. A GTA position is a 50% appointment. In most instances, students will fulfill the teaching requirement during their first year. All GTA appointments are at the discretion of the Department and will only be made available to students in good academic standing. The Department also requires that all GTAs perform their teaching duties in a timely fashion and with due diligence; in the event that a GTA fails to meet these standards a first written warning will be issued. If a GTA continues to perform below the expected standard a second and final warning will be issued. Failure to address the second warning letter will result in the removal of the student from the Department's GTA roster (see Appendix 1 for complete GTA guidelines).

L. DESCRIPTION OF THE Ph.D. PROGRAM

1. Introduction

The Ph.D. Program is designed to prepare the candidate for a career as a research scientist, and usually requires approximately five years. The student works closely with the Advisor who guides the development of an individual

student's program within the guidelines laid down by the Graduate School and outlined in this handbook. The student develops a research program and prepares a dissertation under the guidance of the Advisor and with the help of the Advisory Committee. The student takes appropriate courses and must pass an Candidacy Examination (also referred to as the "General Examination") and Final Oral Examination.

The student should meet with the Advisory Committee at least once a year, starting with the first quarter of the second year of graduate study. These meetings, described more fully in the following sections, are to aid the student and Advisor in evaluating the student's performance and to obtain advice from the Advisory Committee on the research project.

2. Course Requirements

Registration for the Microbiology Seminars (Micro 799 and 880) is required every Autumn, Winter and Spring quarter. Students must make a minimum of two presentations in Microbiology 880 (one during the second year and one during the fourth year).

A minimum of 8 hours of 600-level or higher biological chemistry, with a grade of B or higher, is required.

At least 20 hours of graduate level Microbiology courses (excluding 693, 799, 880, 893 and 999) must be completed with a grade of B or higher. Additional courses from other areas may be required at the Advisor's discretion. After completion of the Candidacy Examination, students must enroll in Microbiology 799, 880 and 999 each quarter. Two quarters of U (Unsatisfactory) in Microbiology 999 will automatically result in dismissal from the program. If a U grade is issued in Microbiology 999, the Advisor must submit a letter to the Graduate Studies Committee explaining the basis for this grade.

a. Focus Areas

There are no mandated course requirements, but three Focus Areas have been identified. Microbiology courses in these areas are listed below. These listings are only suggestions and a student, with the approval of his/her Advisory Committee, may choose to add or substitute classes from other departments (list of courses recently taken by Microbiology graduate students is provided in Appendix 2). Courses from all Focus Areas can be selected; however, courses outside the general field of biological sciences can be taken only with the written consent of the Advisor.

MOLECULAR MICROBIOLOGY

Micro 610: Bioinformatics and Molecular Microbiology
 Micro 649: Virology
 Micro 661: Microbial Physiology
 Micro 680: Advanced Microbial Genetics
 Micro 720: Molecular Basis for Microbial Biodiversity
 Micro 724: Molecular Biology of Bacterial Pathogens
 Micro 760: Advanced Bacterial Physiology
 Micro 850: The RNA World

MOLECULAR IMMUNOLOGY AND PATHOGENESIS

Micro 610: Bioinformatics and Molecular Microbiology
 Micro 629: Parasites and Immunity
 Micro 632: Cellular Immunology
 Micro 649: Virology
 Micro 647: Eukaryotic Pathogens
 Micro 655: Animal Cell Culture Techniques
 Micro 701: Cellular and Molecular Immunology
 Micro 723: Molecular Immunology/Immunochemistry
 Micro 724: Molecular Biology of Bacterial Pathogens
 Micro 832: Advanced Cellular Immunology

APPLIED AND ENVIRONMENTAL MICROBIOLOGY

Micro 610: Bioinformatics and Molecular Microbiology
 Micro 634: Water Microbiology

Micro 636: Food Microbiology
 Micro 661: Microbial Physiology
 Micro 664: Microbial Ecology
 Micro 665: Environmental Microbiology
 Micro 680: Advanced Microbial Genetics
 Micro 720: Molecular Basis for Microbial Biodiversity
 Micro 736: Advanced Food Microbiology
 Micro 760: Advanced Bacterial Physiology

3. Yearly Reviews

To assist the development of each student, an annual review of progress will be made by the student's Advisory Committee. It is the responsibility of the student and their Advisor to plan review meetings and to ensure that reports of the meetings are placed in the student's file each year.

a. First-Year Review

The First Year review, which should occur at the start of the second year, provides the first official opportunity for the student to meet with the Advisory Committee. The Committee will review the courses and grades of the student, review the student's academic plan and help in the design and implementation of the research program.

The Advisor will submit an Annual Review Form to the Graduate Studies Chairperson; if the Advisor feels there are deficiencies, a letter addressing these deficiencies will be provided to the Graduate Studies Chairperson and the student. The Graduate Studies Chairperson reviews these summaries, and if necessary discusses any problems with the Advisor, the student, and the Graduate Studies Committee.

b. Second Year Review

At the start of the ninth quarter of graduate study, all graduate students are required to schedule a committee meeting. The Second Year committee meeting serves as an evaluation of the student's progress toward the degree and as a planning meeting for the Candidacy Exam (see below). Both the Second Year committee meeting and Candidacy Exam must be completed by the end of the tenth quarter of enrollment; students who fail to meet this requirement will be denied enrollment (exceptions are by petition to the Graduate Studies Committee, and will be granted only under extreme extenuating conditions such as serious illness).

One week prior to the scheduled Second Year meeting, the student will provide the committee members with a summary document describing their current research and an outline for their proposed thesis problem. The text portion of the document is restricted to six double-spaced pages and must contain the following sections: Background, Research Goals, Results and Future Goals. Figures, tables and publications can be presented as appendices.

The Second Year meeting is intended to be an interactive review of the thesis proposal. The student should plan an approximately thirty minutes oral presentation based on their thesis proposal and be prepared for an active discussion. The committee will also review the student's progress toward the degree. This will include a review of course-work and seminar presentations (Micro. 880) as well as the suitability of the thesis problem.

Before the meeting is adjourned, the committee will outline the topic areas for the Candidacy Exam document. The focus of the Candidacy Exam will be the thesis problem; however, the committee will, in consultation with the student, identify at least one new research goal to be addressed in the exam proposal. The additional research goal may be on a related topic, but cannot be a question currently being examined in the student's thesis laboratory. The student will provide a list of courses and grades, and a proposal describing the planned research project.

The Advisor will summarize the research goals for the written exam in the Annual Review Form. This will serve as the contract for the Candidacy Exam and the summary will be provided to the Graduate Studies Chairperson, the student and Advisory Committee members.

c. Annual Review after the Second Year

Students are required to have annual committee meetings, to provide updates on research progress and modifications of the research plan, and to obtain input from the Advisory Committee. Students are required to prepare a short progress report (1-2 pages) and this document should be placed in the student's file as an appendix to the Annual Review. A reminder will be sent to the student each summer.

An Advisory Committee meeting will be held two quarters before the projected graduation date. During this meeting the student will summarize the research accomplished to date. The committee members will review the material to be included in the Dissertation, and will make specific recommendations concerning the completion of the Dissertation.

4. Candidacy Examination (General Examination)

a. After completing the Second Year committee meeting, the student will have four weeks to prepare the Candidacy Exam document. The content of the document will follow the plan established in the Second Year review and will focus on the research goals as defined by the committee in the Annual Review Form. The format of the document will follow the general plan described for NIH R01 grant applications. The scope of the proposal should include sufficient work to occupy the full-time efforts of a single researcher for a two-year period. The proposal must have the following sections: Abstract, Specific Aims, Background and Significance, Preliminary Studies, Research Design and Methods, and References. The document must not exceed twenty double spaced pages with one-inch margins. The recommended page allocations for the individual sections are one page each for the Abstract and Specific Aims sections, two-three pages for Background and Significance, six-eight pages for Preliminary Studies and the remainder for Research Design and Methods. Students are encouraged to visit the NIAID tutorial on "How to Write a Grant" for more information on the preparation of a NIH grant (<http://www.niaid.nih.gov/ncn/grants/write/index.htm>).

b. The student must complete the Doctoral Notification of Candidacy Examination form with the scheduled date of the oral examination. This is required so that the Graduate School can assign a Graduate Faculty Representative. This form must be provided to the Graduate School at least two weeks in advance of the scheduled oral examination. The student also provides a copy of the proposal to the Graduate Faculty Representative as soon as the Graduate School informs the Advisor.

c. One week after submission of the document, each committee member will complete a proposal evaluation form, which will be submitted to the Advisor. Each committee member will grade the written portion of the exam within one week of its submission. The paper will be graded as High Pass, Pass or Unsatisfactory; the thesis advisor will notify the candidate of the grade. A minimum grade of Pass is required before the student can schedule the oral section of the exam.

d. If any committee member does not find the document to be satisfactory, the student will have two weeks to revise and resubmit the document to the committee. The revised document will not be re-graded and the student must defend this document in the oral exam. In the circumstance where the Committee decides that the proposal is unacceptable, the student may waive the right to take the oral portion of the examination (per Graduate School rules) by submitting a written statement requesting the waiver to the Committee. The results of the Examination are recorded as "unsatisfactory" with the Graduate School. The Committee will then decide whether the student will be permitted to take a second Candidacy Exam and must record the decision on the Candidacy Examination Report form.

e. Two weeks after approval of the written document, an oral examination will be conducted in which the student is expected to defend the proposal. The Advisory Committee selected for the Second Year Review (with the addition of the Graduate Faculty Representative) will evaluate the student in this exam. At the beginning of the oral exam, the student may make a brief, ten-minute, summary statement highlighting the goals of the proposal. This will be followed by a two-hour question and answer period. The student should be prepared to answer questions on the rationale, design and implementation of the experiments as well as their general knowledge of the field.

f. Students who pass the written and oral Candidacy Exam will be advanced to Candidacy. If the Candidacy Exam is deemed unsatisfactory by the examining committee, the committee may: (i) recommend that the student retake the oral defense portion of the exam, based on the original written proposal, (ii) recommend that another problem and examination be given, at a time suggested by the Committee, (iii) recommend that the student

write a Master's thesis and not be advanced to candidacy, or (iv) recommend that the student withdraw from the graduate program.

In accordance with the Graduate School rules, no student is permitted to take the Candidacy Exam more than twice. A student whose performance is recorded as Unsatisfactory on two attempts at the Candidacy Exam is not permitted to be a doctoral candidate in the same or in any graduate program at this University.

5. Dissertation Committee

a. The Dissertation Committee is generally the same as the Advisory Committee, and consists of the Advisor and at least three other graduate faculty members, two of whom must be from the Department of Microbiology.

1) The Advisory Committee will become the Dissertation Committee and eventually the Final Oral Examination Committee. Additional members of the Final Oral Examination Committee are permitted within the rules of the Graduate School.

2) At least three members of the Dissertation Committee must be Category P Graduate Faculty members of the Department of Microbiology.

3) Changes in the composition of the Advisory Committee, Dissertation Committee, or Final Oral Examination Committee require approval of the faculty member(s) being replaced and the Graduate Studies Chairperson.

b. The Dissertation Committee must have at least one week to review the dissertation before signing the Draft Approval form required by the Graduate School. The Dissertation Committee must agree unanimously that the dissertation (draft) is satisfactory before the student may proceed to the dissertation defense. The completed and signed Draft Approval form is due at the Graduate School office two weeks prior to the Final Oral Defense. This is necessary for the Graduate School to arrange for a Graduate Faculty Representative for the Final Oral Defense.

6. Dissertation Defense

a. The committee consists of the Advisor (as chairperson), at least three other graduate faculty members selected by the Advisor, and a Graduate School Representative selected by the Graduate School. The members of the Dissertation Committee are included in the oral examination committee.

b. The defense is an oral examination evaluating the candidate's knowledge and research performance in his or her area of specialization. It may also cover allied areas at the discretion of the examiners.

c. The examination lasts no more than two hours.

d. The time and place of the examination is determined by the Advisor, in consultation with the student and committee. It must occur between two and four weeks after the student's dissertation draft has been approved by the reading committee.

e. The committee must unanimously agree that the student's performance was satisfactory for the student to pass; the Advisor votes last.

f. A student may retake the examination, once, at the discretion of the examining committee.

7. Thesis Seminar

Students are required to present a public lecture on their research before graduation. This is normally scheduled in the Micro 799 Seminar Series.

Further information on the Ph.D. program requirements may be found in Section 9 of the Graduate School Handbook.

M. MASTER OF SCIENCE PROGRAM

1. Plan A - Thesis:

a. Course Requirements

A minimum of 55 credits of graduate level work must be completed within six (6) calendar years. At least 12 hours of graded graduate level microbiology courses (excluding 693, 799, 880, 893, and 999) and a minimum of 4 hours of 600-level biological chemistry must be completed. Plan A master's students must enroll in Microbiology 799 and 880 every quarter and give one oral presentation in Micro 880. Additional courses from other areas may be required at the advisor's discretion. Plan A master's students will enroll in Micro 999 while completing their research. A maximum of 9 credits may be transferred from other programs to satisfy the 55 credit requirement. Decisions concerning transfer of credits are the responsibility of the Graduate Studies Committee.

A GPA of 3.0 must be maintained and a grade of B or better must be received in each class to be counted toward the Academic Requirements.

Students receiving 2 Unsatisfactory (U) grades in Microbiology 999 are denied further registration in the Program.

A Plan A Master's program requires a Thesis based on the student's research. Students have an annual meeting with their Advisory Committees to aid in the development of their programs and to evaluate their progress. These meetings follow the format of the annual meetings as described for the doctoral program.

b. Final Examination

The final examination is conducted by a committee consisting of the student's Advisor (Chairperson of the committee) and at least two other Category M or Category P Graduate Faculty members from the Microbiology Program. This committee normally includes the members of the Advisory Committee. The Advisor in consultation with the student and Committee determine the time of the examination.

The final examination is an oral examination lasting approximately two hours. It is a Defense of Thesis examination but questions may be asked both in the student's area of interest and in more general aspects of Microbiology and related areas.

2. Plan B - Non-Thesis:

a. Course Requirements

Students in this option are required to earn at least 55 credits of graduate level work within six (6) calendar years. At least 20 hours of graded graduate level microbiology courses (excluding 693, 799, 880, 893, and 999) and a minimum of 4 hours of 600-level biological chemistry must be completed. Plan B master's students must enroll in Microbiology 799 and 880 every quarter and give one oral presentation in Micro 880. No thesis is prepared and students do not enroll in Microbiology 999. Students are required to enroll in 10 hours of Microbiology 893 (special problems) spread over 2 quarters. For students transferring from the Ph.D. program, Microbiology 999 hours may be counted toward the Microbiology 893 requirement; the student's advisor will make this determination.

The Advisor for a Plan B student is appointed by the Graduate Studies Committee Chairperson and is a Graduate Faculty member of at least Category M Graduate Faculty status in the student's area of interest. The student must pass a Final Written Comprehensive Examination of approximately four hours duration and a one- to two-hour oral examination. The examination is comprehensive in the student's area of interest and may include questions dealing with more general aspects of Microbiology and related areas. The Master's Examination Committee consists of the student's Advisor as Chairperson and two other Category M or Category P Graduate Faculty members from the Program.

The time of the examination and the composition of the Committee are determined by the student's Advisor within the guidelines of the Graduate School and the Program. The members of the student's Advisory Committee may serve on the Examination Committee.

Students in the Plan B option must request reinstatement in the Program if they fail to enroll in courses for 2 or more consecutive quarters. The Graduate Studies Committee will act upon the request for reinstatement.

N. EARLY TERMINATION AND TRANSFER BETWEEN PROGRAMS

Ph.D. students who leave the program after passing the Candidacy Exam can receive the M.S. degree after fulfilling the Microbiology graduate program requirements. Students who have not completed the Candidacy Exam may transfer from the Ph.D. program to the Plan A or Plan B Master's program. Students may also transfer between Plan A and Plan B Master's programs and students who have demonstrated a high level of achievement in the Master's programs can petition to join the Ph.D. program. In all cases the student's Advisor and the Graduate Studies Committee must approve the transfer. It is important to note that transfer from the Ph.D. program to a Master's program may result in termination of departmental support at the end of the quarter in which the transfer occurs.

II. GENERAL PROCEDURES

A. OFFICE SERVICES

The following equipment is available for use through the Department Office: Photocopier, computer, typewriter, slide projectors, and fax machine.

The photocopier in 376 Bio Sci may be used by graduate students to make copies of articles not available on-line for educational and research purposes. Please be certain that copies you make from books, journals, etc. do not infringe on Copyright laws. COP-EZ cards can be purchased to use copiers in O.S.U libraries.

Copies of draft dissertations and theses submitted for faculty review may be made but the preparation and submission of the required number of copies of the final Thesis or Dissertation is the responsibility of the student. Instructions concerning the typing, form, and mechanics of preparation are available at the Graduate School. Thesis and dissertation fees are assessed for binding and, in the case of the Ph.D. degree, for microfilming, but not for replication of copies. The Department of Microbiology does not pay for duplicating theses or dissertations. Expenses of thesis preparation may be covered by funds from an advisor's research grant.

The Department's slide projectors are housed in the 366 Bio Sci, next door to the Library/Conference. They may be borrowed for teaching or research through the Department Office. There is an overhead projector in each of the Department's conference rooms, and a power-point projector is also available from Todd Matulnik (2-3277) in the Fermentation Lab.

The Department has two conference rooms that can be reserved for meetings: 368 Bio Sci and 916 Riffe Building. Please make your reservation in the scheduling books in the Department Office. Rooms 484 and 576 Bio Sci can also be scheduled as meeting rooms via the sign-up sheets posted outside these rooms.

B. OFFICE SUPPLIES

Office supplies, such as pads of paper, paper clips, rubber bands, etc. are available in the Department Office, 376 Biological Sciences Building for use in teaching Microbiology courses. Office Supplies for research group use are purchased as a research project expense.

C. AUTOCLAVES AND HOT OVENS

The autoclaves in 415 Bio Sci Bldg and 918 Riffe Bldg are for research use. Procedures for their use are covered on page 1 in the Operating Procedures for the Media Laboratory and Glassware Facility. Please read them carefully.

The autoclaves located in the third floor teaching laboratories are for class materials only

Hot air ovens are located under hoods in Rooms 311, 312, 315, 316, 332 and 411 of the Bio Sci Building. These are for both classroom and general use. Please do not use these ovens while a class is in session.

D. COLD ROOMS

There are nine walk-in cold rooms in the Department. Those in Riffe are assigned to individual research groups. Room 313 Bio Sci is used for course related materials. Rooms 331 and 456 Bio Sci are common use rooms. Room 331 is occasionally also used for course related materials.

Materials placed in a common use cold room must be labeled with the owner's name, date and room number. Biological and chemical hazards should also be labeled with appropriate warning labels. Instructions posted on the cold room doors are strictly enforced.

Should a cold room malfunction and the alarm sound, contact William Swoager, 361 Bio Sci (2-3490). If he cannot be located, try to notify the owners of the materials in the cold room, and email Mr. Swoager at swoager.1@osu.edu.

E. INCUBATOR ROOMS

There are 37°C (room 312B) and 30°C (room 311B) walk-in incubators located between the teaching laboratories on the 3rd floor of the Bio Sci Building. There is also a 37°C walk-in incubator in Room 411.

All are welcome to use these incubator rooms, but microbiology course materials have priority in using the incubator rooms on the 3rd floor. If there are any questions or concerns regarding use of the incubator rooms on the 3rd floor, contact the Department staff in room 309 at (2-4439).

There are instructions posted on the doors of each incubator room regarding use and, most importantly, labeling. These instructions are strictly enforced. Please note that UNLABELED MATERIALS found in an incubator rooms WILL BE DISCARDED!!

F. BIOLOGICAL MATERIALS

Biological materials used for teaching are ordered by the faculty member supervising the course. Biological materials used in research are ordered by the advisor or designee.

G. MAIL

Each student has a mailbox in 376A Bio Sci. Please check your mailbox regularly for messages, notices of meetings, seminars, etc. There are mail trays next to the office door for deposit of outgoing U.S. and Campus mail. To guarantee same-day pick-up, Federal Express items need to be in the office with all the necessary paperwork completed by 2:30 pm. Attempts will be made to have late items picked up the same day, or they may be taken to a drop-off location (the closest is at Staples in Lennox Center; hazardous materials, including those containing dry ice, must be taken to a FedEx-staffed location). International shipments (other than paper letters and documents) and hazardous materials shipped domestically or internationally require additional forms.

Other mailing services available on campus include DHL and a full-service post office. The Department Office has information about pickups and deliveries using these services.

H. DEPARTMENT EQUIPMENT

1. Equipment Malfunctions

Please report equipment malfunctions to Mr. William Swoager, 361 Bio Sci (292-3490). He will determine and implement the necessary repair procedures. Equipment manuals should be made available.

2. Service Tours

Mr. Swoager visits every research lab at least once each Quarter to undertake maintenance procedures such as lubrication, oil changes, adjustments and calibrations, etc. He also inspects the labs for safety issues, building problems and equipment abuse.

3. Inventory

Mr. Swoager is the Equipment Coordinator for the Department of Microbiology. He is responsible for status and location of all Departmental equipment purchased at a cost of over \$3,000. He can assist in instruction in the use of equipment and will assist in disposing of equipment.

4. Ethanol

Ninety-five percent ethanol is available from the Culture Laboratory. A release form can be obtained from the Mr. Swoager that must be signed by a student's advisor before ethanol can be provided. Ethanol can be obtained in five (5) gallon and one (1) gallon containers.

5. Sinks

Most labs have epoxy resin (Durcom) sinks that crack if dry ice is placed in them. Replacement sinks cost \$500. Please keep this in mind when using dry ice.

I. TELEPHONES AND FAXES

Laboratory and office telephones are for business use only. "PLUS" numbers are assigned to each Advisor that shall be used for all long-distance calls (including faxes). Pay telephones are available for personal calls in the building lobby opposite the passenger elevators. The Department pays a charge for every call made, and a listing of all calls made is provided to the Department Office every month.

J. BULLETIN BOARDS

The Department bulletin board, located opposite the elevators on the 3rd floor of the Bio Sci Building, provides regular notices of meetings, seminars, etc. There is a bulletin board inside the Department Office designated for graduate student issues.

K. SEMINARS

The Department sponsors weekly seminars (Thursdays at 4 pm) by outside speakers who present research lectures and interact with members of the Department. These seminars are publicized on the bulletin board opposite the elevators on the 3rd floor of the Bio Sci Building.

L. PERSONAL INFORMATION

Please report any change in name, address, phone number, marital status, or Social Security Number to the Department Office and to the Registrar's Office. Forms for this purpose are available in the Department Office. If you do not receive an IRS Form W-2 in January, check with the Tax Office (292-2521). If you wish to make changes in your tax exemptions, obtain a tax card from the Department Office.

M. MICROBIAL CULTURE COLLECTION AND CULTURE LABORATORY

The Curator of the Culture Collection is Mr. William Swoager. The Culture Laboratory is 361 Bio Sci. The purpose of the Culture Lab is to support research and teaching activities by providing cultures and providing a place for the deposition of cultures. Requests for cultures should be submitted to the Curator with sufficient advance notice. Use a 5" x 8" index card (available in the Culture Lab) with the following information:

1. Name of microorganism.
2. Date needed.
3. How the organism is to be used and the medium on which it is to be furnished (if the medium is important).
4. A complete description of the organism listing specifically all of the traits which must be manifested for the organism to serve its function.
5. A faculty signature.
6. Signature of person submitting the request.

Cultures of each organism requested for class use will be supplied only once (in triplicate) during a quarter. Maintenance of the culture for use during the remainder of the quarter will be the responsibility of the instructor in charge of the course.

N. ID CARDS, PARKING PERMITS, AND E-MAIL ACCOUNTS

To obtain your OSU BUCK-ID card, check with the office staff to be certain that you have registered for classes and your fees have been paid. Then go to the ID Center, 202 Lincoln Tower, to obtain your BUCK-ID card. The first card is free; replacement cards cost \$15.

Graduate Teaching and Research Associates are eligible for staff parking permits. These can be purchased at Transportation and Parking Services, 160 Bevis Hall, 1080 Carmack Rd., on West Campus (292-9341). You will need to present your ID card, fill out the proper form, and pay the required fee. While a list of eligible students is submitted to Transportation and Parking Services each year, you may find it beneficial to request a letter from the office staff indicating your status as a Microbiology Graduate Associate from the Department staff.

OSU web access and e-mail accounts are opened online at <http://www.oit.osu.edu/userpass.html/>.

O. KEYS

An outside door key will be provided to each student by the Department Office. This key (CS1) will open the ground and parking level doors of both the Biological Sciences Building and Riffe Building. During the rotation period, the laboratory Advisor will provide the lab keys students will need. When you join a lab permanently, request that the Department Office order a key for you to that lab. When your key is ready, you may pick it up at Key Control, 067 Central Services Building, 2003 Millikin Rd (292-1415).

Students working in the Riffe Building will also need an elevator key.

III. Department Staff

Staff Member	Title	Office	Phone	Email
Erin Anthony	Human Resources Associate	376 Biosci	2-2301	micro.grad@osu.edu
Todd Matulnik	Fermentation Facility Manager	942 Riffe	2-3277	matulnik.1@osu.edu
Matt Mezydlo	Microbiology Lab Preparator	309 Biosci	2-4439	mezydlo.1@osu.edu
Peggy Milliman-Wing	Administrative Associate I	376 Biosci	2-2301	milliman-wing.1@osu.edu
Madhura Pradhan	Lecturer	140 Riffe	2-1196	pradhan.2@osu.edu
Lisa Robinson	Instructional Aids Assistant	309 Biosci	2-4439	robinson.331@osu.edu
Linda Saville-Rath	Lab Demonstrator	280 Biosci	2-0509	saville-rath.1@osu.edu
Bill Swoager	Research Associate	361 Biosci	2-3490	swoager.1@osu.edu
Gary Van Winkle	Microbiology Lab Preparator	333 Biosci	2-3476	vanwinkle.1@osu.edu
Sarah Warner	Microbiology Lab Preparator	333 Biosci	2-3476	warner.193@osu.edu
Kaethe Sandman	Program Coordinator	476 Biosci	2-5867	sandman.1@osu.edu

Student Annual Review Form

Student: _____

Date: _____

Advisor: _____

Committee Members: _____

Year Review: 1 2 3 4 5

Comments:

Please attach student’s Research Progress Report and the most recent Activity Report.

Appendix 1

Handbook for Graduate Teaching Associates

OSU Department of Microbiology

Purpose

This manual provides a summary and description of your responsibilities as a graduate teaching associate (GTA) in the OSU Microbiology Department.

Overview of TA Responsibilities in Microbiology

You will learn the specific details of your course from the lecturer and course coordinator at the beginning of the quarter. However, the following are general TA responsibilities common to all Microbiology courses.

- I. Attend all class lectures if requested by instructor; some instructors may not require this
- II. Attend and participate in weekly TA meetings
- III. Work 12 weeks @ 20 hours/week
- IV. Teach laboratory and recitation classes
 - a. Use program pedagogy
 - b. Prepare for class
 - c. Create and adhere to an agenda
 - d. Set-up and clean-up
 - e. Grade assignments in a fair and timely manner
 - f. Post grades promptly
- V. Hold office hours in a public place on campus during standard business hours
- VI. Make arrangements if you need to be absent
 - a. Contact course coordinator and head TA
 - b. Arrange for a substitute
 - c. Complete a Request for Leave form
- VII. Report suspected academic misconduct
- VIII. Maintain a professional demeanor
 - a. Follow the Family Education Rights and Privacy Act of 1974
 - b. Respond to student/staff/faculty communications in a timely manner
 - c. Use only OSU email accounts for email communications
 - d. Check your mailbox regularly
 - e. Be aware of and adhere to rules regarding sexual harassment

I. Attend all class lectures if requested by instructor; some instructors may not require this

Due to the varying nature of Microbiology courses, some instructors deem it necessary that GTAs attend all class lectures, while others do not require lecture attendance. Please attend the lectures if your instructor requests you to do so.

II. Attend and participate in weekly TA meetings

Communication is essential for the smooth operation of any course. TA meetings are an opportunity for you and your fellow TAs to meet in one place at one time to discuss course issues. Attendance is required for all TAs, including course veterans (those who have previously taught the class). During the meeting the TAs meet with their course coordinator and Head TA to discuss exams, grading issues, special announcements and any other concerns/problems that may arise from week to week. The weekly meeting sets the stage for all that occurs in the upcoming week. Procedures and instructional information for the upcoming week's laboratory period are introduced by the course coordinator in the weekly TA meeting. The day and time of your weekly TA meeting will be announced at the beginning of the quarter.

III. Work 12 weeks @ 20 hours/week

All TAs agree in their contract to work 12 weeks at 20 hours a week (from the week before the quarter starts through the end of finals week). This will include time for ongoing training, meetings, preparation for instruction, and class time. You should anticipate that some weeks will be busier than others. We expect that you will be available for training and preparation before the quarter starts and after finals for the final grade meeting.

IV. Teach laboratory and recitation classes

Depending on the course, lab is intended to complement topics presented in lecture. You are responsible for conducting all aspects of lab period and grading all lab tests and assignments. Your lecturer may require you to create your own quizzes and lab assignments, or Microbiology staff may furnish tests.

Recitation is an opportunity for students to ask questions about lecture material, and an opportunity for you to clarify and emphasize any concepts from lecture that you feel are particularly important or difficult for students. Recitation is also an opportunity for you to explore concepts in greater detail.

a. Use program pedagogy

Lab: The teaching strategy for lab is to ask thought provoking questions and offer assistance so that students will learn from the experience as they think for themselves. It runs counter to the lab's purpose to tell students expected results, which they will then try to achieve by almost any means. And, sometimes the students' results are not the "right" ones, which they misinterpret as a failure. To avoid this, discuss labs only in a general way at the beginning of lab period and save discussing specific results for the end of an experiment. After the experiment is also an appropriate time for discussing results as to how they relate to the hypothesis, the experimental design, or procedures. It is crucial to link their experiences and results back to accepted scientific explanations.

Recitation: Many TAs feel that recitation is potentially the most difficult aspect of their job, especially if students are not talkative. A quiet class may bring the temptation to present a mini "rerun" of the previous lecture to break the silence and fill class time. Avoid this entirely, because students have already heard the lecture material. You should assume your class attends lecture and you should present a concise overview of the "meaty" concepts in recitation. You will know from your experience in Microbiology and your weekly TA meetings what topics need emphasis.

Recitation is your opportunity to get the students actively involved, help them see the details as well as the big picture, and facilitate their understanding of how the content relates to the real world and the other concepts that they already know.

Ask thought-provoking questions that require the student to not only recall the concepts in lecture, but also to apply, analyze, and synthesize the information. When students don't ask questions, that doesn't necessarily mean they fully understand the material. Students speak more often when they see that their participation helps them understand the material. Recitation then moves quickly and becomes rewarding for both you and your students.

b. Prepare for class

Develop, read, and practice the activities ahead of time. Consider which parts are going to be confusing to the students. Identify the learning objectives for the class and make a plan about how to facilitate student achievement of those objectives.

Microbiology will provide you with a lab manual and textbook. You can consider these yours while you are teaching the course. If you have handouts, assignments, or quizzes that you need copied, you can use the copy machine located in BioSci 376.

c. Create and adhere to an agenda

Arrive at the room early enough to post an agenda for the class. Referring to the agenda will help the students see that you have an organized plan for the day. It also helps them see what they are going to be doing so they can approach their work in a meaningful way.

d. Set-up and clean-up

Microbiology lab staff perform much of the lab prep work such as securing supplies and setting up the rooms on a daily basis. A staff member is usually available during class time should you have any questions, problems, or lack materials. However, the students (and ultimately you by way of supervision) are responsible for restoring the lab room to its original ready condition by replenishing supplies as needed, cleaning up, and returning lab items to their proper location at the end of lab period. This is necessary in order to accommodate the numerous back-to-back lab sections that run twelve minutes apart throughout each day in many Microbiology courses.

e. Grade assignments in a fair and timely manner

Most courses have multiple-choice exams that are automatically graded, but you will have assignments and quizzes to grade by hand. Use grading rubrics and TA meetings to make sure that you are grading accurately and consistently with the other TAs in the course. It is important to include notes to the students when you grade so that they understand how you determined their grade and how they can improve in the future. The assignments and quizzes should be learning experiences.

f. Post grades promptly

The record-keeping format of Carmen is similar to a spreadsheet – columns with appropriate titles in which you enter student scores. In order to keep students informed of their progress in the course, it's very important that you stay current in entering student scores in Carmen. Weekly assignments, such as quizzes and labs, should be entered within one week after their completion. Students can then log on and view their course records at any time of day. Do not post a score sheet in the hallway.

V. Hold office hours in a public place on campus during standard business hours

Each week, hold one office hour for each section you teach. This enables your students to reach you for assistance outside of usual class hours. You may split your two hours over different days or keep them consecutive if you wish. Post your office hours and frequently remind students of them. If nothing else, advertising your office hours sends students a positive message that your door is open to them. Always be there at the designated time; never alienate a student by having her/him show up to an empty office. You may find that many of your students do not take advantage of office hours (except near exam time!), but the personal contact of this extra opportunity certainly benefits those who do. You may optionally tell your students that they can stop by your lab any time, but knowing a specific time that you are guaranteed to be there will encourage them to actually come.

Remember that any private residence is not a suitable meeting place for office hours; a neutral campus location, preferably within a university building, is appropriate.

VI. Make arrangements if you need to be absent

a. Contact the course coordinator and head TA

If you find that you cannot make class, immediately inform the course coordinator and Head TA. Illness, car failure, or an unexpected event may occur, making it necessary for someone else to cover your assigned class period. An upcoming conference or departmental event may also occur on the days you teach. As soon as you know that you

cannot attend your class, immediately notify your course coordinator and Head TA. Of course, as much advance notice as possible is desirable.

b. Arrange for a substitute

Your course coordinator can provide contact information for the other TAs so that you can arrange for a substitute.

c. Complete a leave form

If you miss a meeting, lecture, class, or other course responsibility, complete a leave form (http://www.gradsch.ohio-state.edu/Depo/PDF/GA_leave_form.pdf) and give it to your course coordinator to sign.

VII. Report suspected academic misconduct

Copying from another student during an exam and plagiarism of written work are two common examples of academic misconduct. All faculty, staff, and instructors are required by OSU policy to report any suspected academic misconduct to the Committee on Academic Misconduct (see below). Failure to report academic misconduct is in itself academic misconduct, which opens the negligent staff member or instructor to university sanctions.

Dealing with your students' academic misconduct is probably the most unpleasant aspect of teaching. Many TAs having this experience report feelings of insult and betrayal. But fortunately, resolving the situation isn't solely your responsibility. The Committee on Academic Misconduct, by way of the course coordinator, handles all cases of alleged misconduct (i.e. plagiarism, cheat sheets, detrimental behavior) within Microbiology courses. The Committee relieves the instructor of playing both judge and jury when faced with academic misconduct. The Committee, composed of both faculty and students, conducts hearings to investigate the situation and imposes appropriate sanctions should the Committee find the student in violation of the Code of Student Conduct.

If you discover any assignment that you suspect may be academic misconduct, immediately contact your course coordinator and bring the suspicious assignment to her/him. The course coordinator will forward the case to the Committee on Academic Misconduct by writing a report of the incident with the information you supply. The course coordinator will also inform you of additional details you need to know as the TA and will notify the student(s) involved. You will need to supply supportive documentation of your account of the events.

The importance of bringing forward all suspected academic misconduct cannot be overstated. We owe this to the great majority of students who are honest and do their own work.

VIII. Maintain a professional demeanor

a. Follow the Family Education Rights and Privacy Act of 1974 (FERPA)

http://www.ureg.ohio-state.edu/ourweb/more/ferpa_pg1.html

Student educational records are private and protected under FERPA. You should assume that you need a student's written consent before you share any aspect of his/her educational record with anyone but the student. This means that you should not publicly post student grades, share student progress with parents, leave graded papers unattended, or allow students to find their graded papers in a stack. If a student asks you to write them a letter of recommendation, do not include the student's grade without prior written consent from that student. If you have questions about what you can and cannot do under FERPA, contact the Office of Legal Affairs at 292-0611.

b. Respond to student/staff/faculty communications in a timely manner

In this age of high-speed communications, we all have the expectation that we will hear back from emails within one business day. If you are being inundated with email, it can feel overwhelming. It is understood that graduate students have to divide their time among multiple tasks. If you do not have time to completely answer an email within one business day, confirm receipt of the email by sending a brief reply saying that you will get back to the sender soon with a more detailed answer. Please make sure that you keep your inbox from exceeding the quota to insure that student emails are not bounced back without you seeing them.

c. Use only OSU email accounts for email communications

As students at The Ohio State University, both you and your students have email accounts associated with family name.#@osu.edu. These are the accounts that you and your students should use to communicate with one another. This is important as sometimes the OSU email server fails to communicate properly with outside email servers.

d. Check your mailbox regularly

If you check your mailbox in BioSci 376 regularly, you will avoid lapses in communication between you and your students as well as between you and the program staff.

e. Be aware of and adhere to rules regarding sexual harassment

(This segment adapted from Sexual Harassment Policy, OSU Office of Human Resources)

<http://hr.osu.edu/policy/policy115.pdf>

Sexual harassment is defined as any unwelcome sexual advance, request for sexual favor, reference to gender or sexual orientation, or other physical or verbal conduct of sexual nature. The University prohibits such behavior from any faculty, staff or student because it interferes with the affected person's work performance or educational experience. Sexual harassment isn't always male to female; it can involve any two people regardless of gender when one person is the recipient of unwanted sexual attention or behavior.

People vary in their degree of sensitivity to speech and actions that may be perceived as sexual in nature; this is certainly true of your students. Therefore, any possible accusation of sexual harassment from a colleague or student is least likely if you completely avoid all of the following: Comments about sex or sexual orientation, sexually explicit jokes or questions, physical contact with a person's body, and open display of inappropriate sexually oriented materials.

You have several options if you or a student believes you are sexually harassed. Confidential counseling is available from a number of campus offices: Faculty and Staff Assistance Program, Office of Women's Student Services, Office of Residence Life, Counseling and Consultation Service and the Office of Student Life. Confronting the harasser in person, in writing or by telephone may resolve the issue. If you do wish to file a complaint, several offices are authorized to confidentially receive and investigate complaints: Any academic or administrative official of the University (e.g. dean, chairperson, director, supervisor), the Office of Human Resources, and the Office of Student Affairs.

The rights of both the accuser and the accused in any sexual harassment case are protected through University procedures designed to ensure that both parties are heard while maintaining confidentiality and respect for everyone involved. Sanctions may be imposed on the accuser if a person makes false accusations of sexual harassment. The fact that allegations cannot be proven, however, does not mean the accusation is considered false.

The University strictly prohibits all TAs from dating their students due to the great potential for problems that could develop from this situation. Dating a student could interfere with your objectivity and fairness as an instructor. Any favoritism toward a student during the relationship, or bias against the student after a breakup, has no place in the classroom. Please refrain from social activity that may lead to dating. The Microbiology department also recommends that you restrict socializing with your students to a minimal level. Bonding with your class is good, but only to a certain extent. Becoming a peer of your students breaks down the traditional teacher-student hierarchy that is necessary at times to properly manage your class. Losing your teacher status robs you of the authority required at times for student discipline, or managing a difficult situation such as academic misconduct. So be judicious of when, where, and how you interact socially with your students.

Microbiology Performance Improvement Plan

It is important for TAs to fulfill all of the responsibilities outlined. If a TA has trouble fulfilling these responsibilities, the course coordinator will outline a plan for improvement. Should the troubles persist, or should additional transgressions occur, the course coordinator will initiate a Performance Improvement Plan. Such plans include three steps:

- A TA is informed verbally that their behavior is not acceptable and requires change. Suggestions on how to accomplish this will be made. The course coordinator makes a note of this meeting in the TA's Microbiology file by initiating a log of the Performance Improvement Plan.
- Should satisfactory change not occur in a timely manner in response to step 1 or should a similar episode that resulted in step 1 occur again, the TA will be informed in writing by the course coordinator that they are under a Performance Improvement Plan listing what positive steps are required to be taken along with a

schedule for completion and/or what behaviors must cease. The TA's department chair, the graduate program chair of their department, and their graduate advisor will be copied.

- Should the above improvements in performance not occur within the schedule, the TA is informed in writing by the course coordinator that either immediately or at the end of the current quarter, they will no longer be accepted as a TA by Microbiology; the above parties will be copied.

Appendix 2

Classes taken by Microbiology graduate students since 2001

Current courses available in the Department of Microbiology

- 600 level:*
- 610 Bioinformatics and Molecular Microbiology
 - 629 Parasites and Immunity
 - 632 Cellular Aspects of the Immune Response
 - 636 Food Microbiology
 - 647 Eukaryotic Pathogens
 - 649 Introductory Virology
 - 661 General Microbial Physiology
 - 664 Microbial Ecology
 - 665 Environmental Microbiology
 - 669 Microbial Evolution
 - 680 Advanced Microbial Genetics
- *700 level:*
 - 701 Cellular and Molecular Immunology
 - 720 Molecular Basis for Microbial Biodiversity
 - 723 Molecular Immunology
 - 724 Molecular Pathogenesis
 - 736 Advanced Food Microbiology
 - 760 Advanced Bacterial Physiology
 - *800 level:*
 - 832 Adv Cellular Immunology
 - 850 The RNA World

Current courses available via other departments

- *600 level:*
 - Biochem 613 Biochemistry and Molecular Biology
 - Biochem 614 Biochemistry and Molecular Biology
 - Biochem 615 Biochemistry and Molecular Biology
 - EEOB/Mol Gen 640 Genetic Basis of Evolution
 - Geol Sci 621 Intro Geochemistry
 - Mol Gen 605 Molecular Genetics 1
 - Mol Gen 607 Cell Biology
 - MVIMG 600 Evolution of Emerging Viruses
- *700 level:*
 - Biochemistry 702 Regulation of Gene Expression
 - Biochemistry 721 Physical Biochemistry 1
 - Biochemistry/Chem 761 Adv Biochemistry: Proteins
 - Biochemistry 766 Adv Biochemistry: Nucleic acids
 - Biochemistry 770 Protein Engineering
 - Chem 763 Adv Biochem: Membranes and Bioenergetics
 - Entomol 795 Physiology and Toxicology
 - IBGP 702.01 Molecular and Cellular Physiology
 - IBGP 730 Biomedical Informatics
 - Molbioch 762 Adv Biochemistry: Enzymes
 - Molbioch 764 Adv Biochemistry: Integration of Metabolism
 - Molbioch 781 Animal Models of Human Disease
 - Molbioch 785 DNA Microarray
 - Mol Gen 700 Systems of Genetic Analysis
 - Mol Gen 701 DNA Transactions
 - Mol Gen 705 Advanced Cell Biology
 - Mol Gen 711 Molecular Evolution

Mol Gen 770 Molecular Biology of Viruses

MVIMG 754 Molecular Virology

Plant Biol 736 Plant Biochem 2

Plant Path 703 Agricultural Genomics: Principles & Appls

Plant Path 704 Fungal Biology

- *800 level:* MVIMG 833 Current Immunological Techniques
Molbioch 824 Enzymology
Molbioch 880 Gene Expression: Post-Transcriptional Control