Discovering the mechanisms of life
2013 – 2014

http://www.mcdb.iastate.edu/
This Handbook . . .

This student handbook is provided to give general guidance about important issues and activities that you will encounter in your graduate career. Because the MCDB interdepartmental graduate major continually seeks to improve, as does the entire graduate education program at Iowa State, some changes may occur between the times of the annual printing of this handbook. You are expected to stay in close communication with your major professor and MCDB program staff regarding important issues. You are also encouraged to bring questions and comments to the Chair and members of the Supervisory Committee of MCDB at any time.
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INTRODUCTION

The MCDB Major

The graduate major in Molecular, Cellular, and Developmental Biology is an interdepartmental and interdisciplinary training program at Iowa State University that offers the Master of Science and Doctor of Philosophy degrees. The MCDB training program offers a broad spectrum of MCDB research opportunities, ranging from the molecular to the cellular to the systemic level of analysis. The program includes over 60 faculty member from the following departments:

- Agronomy
- Animal Science
- Biochemistry, Biophysics and Molecular Biology
- Biomedical Sciences
- Chemistry
- Entomology
- Food Science and Human Nutrition
- Genetics, Development, and Cell Biology
- Horticulture
- Physics & Astronomy
- Plant Pathology
- Veterinary Microbiology and Preventive Medicine
- Veterinary Pathology

The strength of the MCDB major lies in the combined expertise of its diverse faculty. This ensures a broad education while offering flexibility in choice of specialization. The large number of MCDB faculty in a variety of disciplines will provide you with a wide choice of research projects and major professors. Other activities and organizations in the program bring faculty and students together and provide opportunities for personal and professional interaction. These interactions are central to our goals, which are to provide broad and robust graduate student training while stimulating excellence in MCDB research.

Administration

A Chair and Executive Committee oversee the activities of MCDB. Feel free to contact them if you have any questions about the program. For the 2013-2014 academic year, the Chair and Executive Committee are:

Chair: Clark Coffman
Associate Professor, GDCB
3258 Molecular Biology Bldg.
515-294-3911  ccoffman@iastate.edu

Associate Chair: W. Allen Miller
Gustavo MacIntosh
Professor, Plant Pathology
Assistant Professor, BBMB
413 Bessey Hall
2214 Molecular Biology Bldg.
515-294-3911  wamiller@iastate.edu  515-294-2627  gustavo@iastate.edu

Committee Members:
W. Allen Miller
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413 Bessey Hall
515-294-2436  wamiller@iastate.edu

Gustavo MacIntosh
Assistant Professor, BBMB
2214 Molecular Biology Bldg.
515-294-2627  gustavo@iastate.edu
UPON ARRIVAL AT IOWA STATE

When you first arrive, you may find yourself overwhelmed by the number of things you must do. Here is a list of some of the most important.

1. Visit the Interdepartmental Programs office in 2018 Molecular Biology. Introduce yourself to the MCDB Program Coordinator, Katie Bair. The Chair, Dr. Clark Ford, whose office is 2312 Food Science Building, can answer many questions you have about your academic program. Katie can help you find your way around the University administrative offices and answer your questions regarding MCDB and/or the University.

2. Read this Handbook. It is especially important to read the section on Administrative Matters during your first few days.

3. Register for e-mail and plan to check it regularly (at least daily). E-mail is the most common means of communication at Iowa State University.

4. Access the following references and examine them carefully. These documents contain all the University regulations and requirements for graduation. Most of these items come directly from the Graduate College and Office of the Registrar. All items in bold are required and students are expected to be familiar with this information.

   Graduate College Handbook* [http://www.grad-college.iastate.edu/](http://www.grad-college.iastate.edu/)


   General University Catalog [http://catalog.iastate.edu](http://catalog.iastate.edu)

   Schedule of Classes* [http://classes.iastate.edu/](http://classes.iastate.edu/)

   Iowa State University Semester Calendar [http://www.registrar.iastate.edu/calendar/](http://www.registrar.iastate.edu/calendar/)

   Iowa State University phone/e-mail directory [http://www.info.iastate.edu/](http://www.info.iastate.edu/) (The current print of the Iowa State University’s Phone/E-mail directory is the final print version. It is advisable to use the on-line directory to access the most current information.)

   * Available only on line.
GETTING STARTED – YOUR FIRST YEAR

Graduate Student Orientation

For new graduate students, the academic year begins with an orientation period which is designed to ease the transition to graduate study at Iowa State. It is a time to become acquainted with the MCDB program and its members and to prepare for registration and the start of classes. Along with this handbook, you should have received a schedule of important orientation activities from MCDB, as well as the Graduate College. Please refer to them for information about your responsibilities during Orientation.

Which of the following sections you need to read is determined by how you are being funded. Students may enter MCDB by either of two routes: direct admission into MCDB or admission after acceptance into a department. Students entering MCDB directly are usually supported for their first year on an MCDB Research Assistantship and spend their first year doing rotations and choosing a major professor. They should read the entire handbook. Students entering after acceptance into a department arrange for a major professor and financial support through their home department. The latter students may skip sections dealing with temporary advisors, research rotations, and choosing a major professor.

Assignment of a Temporary and Advisor and Graduate Student Mentor

If you have entered the MCDB program directly, the chair of the major or another faculty mentor will serve as your temporary advisor until your major professor is selected. The temporary advisors are well acquainted with the MCDB laboratories at Iowa State. The responsibilities of the advisors are to guide you in selecting courses during your first year, to discuss with you the research opportunities in MCDB, and to suggest laboratories for visits and rotations.

Toward the end of the first week of the orientation period, you will meet with your advisor for counseling and preparation of your schedule for the fall semester. If it is necessary to add or drop a course, or change sections of a course or the number of credits, you may do so on AccessPlus, the University registration system.

Research Rotations—MCDB 697

First year students who enter MCDB directly as Research Assistants are required to complete laboratory rotations (MCDB 697) to help them choose their major professor. First-year students who have already entered a department and do not receive financial support from MCDB are not required to take MCDB 697 or do MCDB rotations; rather
these students should register for the appropriate section of MCDB 699. The section of 699, MCDB Research, is determined by the faculty member whose lab the student has joined. The research rotations, in addition to helping you choose your major professor, provide you with an interdisciplinary research experience, give you an opportunity to actively participate in the research program of the laboratories in which you are interested, and promote interaction and exchange of information among research groups.

MCDB Research Assistants must do three laboratory rotations during their first year (MCDB 697). Each rotation should be about 8 weeks long, with the exact length determined by agreement between the student and the professor hosting the rotation. A good schedule is two rotations during the first semester and a third during the first part of the second semester. If desired, a fourth rotation can be added in the spring semester. Total credits of MCDB 697 per semester should be 2 to 6, to bring the total number of semester credits up to 12.

**Choosing Your Major Professor**

If you have entered MCDB directly, much of your first year will be devoted to the important process of selecting a major professor, the person who will guide you in your graduate studies and whose research group you will join. Activities during orientation week provide you an opportunity to meet individual faculty members and discuss their research. You should also make appointments for additional conferences with the professors whose work interests you. The initial rotation arrangements (consent of faculty and start date) should be made by the second week of classes.

First-year graduate students in MCDB must choose a major professor by the end of their first year at Iowa State. However, it is highly recommended that the student choose a major professor by mid-March.

You should make use of the following information to help you decide on a research group and a professor with whom to rotate:

- The MCDB website, which has brief descriptions of the research programs of each faculty member. 
  http://www.mcdb.iastate.edu/
- Curriculum vitae and references to recent publications of MCDB faculty, available on many professors’ homepages.
- Discussions with individual faculty members. (This is very important!)
- Potential that the faculty member will have space and funding for a new student, and what the level of financial support will be.

When you have decided with whom you would like to rotate, you need to personally ask the faculty member whether you can rotate in his or her laboratory. If you are interested in joining that faculty member’s group, you should tell him or her of your interest and determine whether there might be space and funding for you after you finish your rotations.
Also, discuss the project you might have for your research. Although research will be conducted during these rotations, the completion of a project is not required.

Part of the process of choosing a lab is learning what additional courses or other requirements, if any, must be met in the department of your chosen faculty mentor. These requirements vary with each department. This information can be obtained from the faculty mentor, his/her department, or the MCDB office.

After you finish your laboratory rotations, ask the faculty member with whom you would like to work whether he or she can accept you into his or her laboratory and arrange for your future financial support. Once a mutual agreement has been reached, please inform the MCDB program chair and the MCDB program coordinator. You will need to initiate a “Request to Establish a Home Department for Students Admitted to Interdepartmental Majors” form (available online at http://www.grad-college.iastate.edu/forms/forms.html).

**NOTE:** You should wait to choose a major professor until after your rotations. If a faculty member attempts to get a commitment from you before the end of your rotations, don’t do it unless you are absolutely certain it is what you want. It is best to reserve your decision until you are fully informed about the opportunities available to you.
ACADEMIC MATTERS

Degrees Offered

MCDB offers coursework and research experiences leading to the degrees of Master of Science and Doctor of Philosophy. Both Ph.D. and M.S. students must prepare a written thesis. Because MCDB is a research-based discipline, non-thesis Master of Science degrees are not available.

Admission to a Degree Program

The degree that a student may pursue in MCDB (that is, M.S. or Ph.D.) is normally determined and specified at the time of the student’s admission to the program. Although a prior M.S. is not required for admission to the Ph.D. program, criteria for admission to the Ph.D. program are more stringent than to the M.S. program. Earning an M.S. in MCDB does not automatically qualify a student to pursue the Ph.D. degree in MCDB. Conversely, a student admitted to the Ph.D. program may need to change to an M.S. program in MCDB. This decision may impact the student’s funding that was awarded based on pursuit of the Ph.D. degree. Students should confer with their major professor, the MCDB chair, and notify the MCDB office if they are contemplating making such changes.

Required Courses

It is expected that all graduate students entering the MCDB program will have a strong background in the biological sciences, including work in general biology, genetics and biochemistry. Your temporary advisor or major professor will help you determine if you have deficiencies in any of these areas and decide if you need to take additional background courses. If it is desirable to take such courses, you should take them as soon as possible.

To assure that all our students are trained in the major areas of MCDB, all students should include in their program of study a core of courses which will provide a broad coverage of the basic program in MCDB. Formal courses include biochemistry, cell biology, molecular biology and developmental biology. All students will take the MCDB seminar course each year.

A summary of the curriculum requirements follows and can also be found on the form “Checklist for Completion of Graduate Requirements for MCDB Majors”, page 23.
Curriculum Requirements for MCDB Students

Ph.D. candidates majoring in MCDB must take at least 72 graduate credits. These 72 credits include the core course requirements (below) and applicable research credits earned. Credits taken during a student's M.S. program in MCDB at Iowa State University may count towards their Ph.D. in MCDB.

Students seeking an M.S. degree must take a total of 30 credits, with not less than 22 credits earned at ISU. M.S. students must take the core curriculum but need to complete only two of the three components in molecular biology, cell biology, or developmental biology.

Additional coursework for both Ph.D. and M.S. degrees may be selected by the student in consultation with his/her Program of Study (POS) Committee to meet departmental requirements and to satisfactorily prepare the student for their research project.

Graduate credits of B or better earned at another institution may be transferred at the discretion of the POS Committee and with the approval of the MCDB Program and the ISU Graduate College.

Additional information relating to credits required for graduate degrees can be found in the ISU Graduate College Handbook.

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Core Course Curriculum Requirements for MCDB Majors seeking a Doctoral Degree

Two semester sequence of Biochemistry (either BBMB 404/405 or BBMB 501/502)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBMB 404</td>
<td>Biochemistry I</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>BBMB 405</td>
<td>Biochemistry II</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>BBMB 501</td>
<td>Comprehensive Biochemistry I</td>
<td>4</td>
<td>Fall</td>
</tr>
<tr>
<td>BBMB 502</td>
<td>Comprehensive Biochemistry II</td>
<td>4</td>
<td>Spring</td>
</tr>
</tbody>
</table>

All PhD students must take one course from each of the following areas: A) Cellular Biology, B) Developmental Biology, & C) Molecular Biology

A) Cellular Biology Course Options Include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDCB 528</td>
<td>Advances in Molecular Cell Biology</td>
<td>3</td>
<td>Alt. Fall, 2014</td>
</tr>
<tr>
<td>GDCB 529</td>
<td>Plant Cell Biology*See Footnote</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>BMS 575</td>
<td>Cell Biology</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>BBMB 645</td>
<td>Molecular Signaling</td>
<td>2</td>
<td>Alt. Spring, 2015</td>
</tr>
</tbody>
</table>
B) Developmental Biology Course Options Include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDCB 512</td>
<td>Plant Growth &amp; Development</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>GDCB 533</td>
<td>Principles of Developmental Biology</td>
<td>3</td>
<td>Alt. Fall, 2013</td>
</tr>
</tbody>
</table>

C) Molecular Biology Course Options Include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro 502</td>
<td>Microbial Genetics &amp; Genomics</td>
<td>3</td>
<td>Alt. Fall, 2014</td>
</tr>
<tr>
<td>GDCB 511</td>
<td>Molecular Genetics</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>GDCB 520</td>
<td>Genetic Engineering</td>
<td>3</td>
<td>Alt. Spring, 2014</td>
</tr>
<tr>
<td>GDCB 545</td>
<td>Plant Molecular Biology</td>
<td>3</td>
<td>Alt. Fall, 2013</td>
</tr>
<tr>
<td>VMPM 608</td>
<td>Molecular Virology</td>
<td>3</td>
<td>Alt. Fall, 2014</td>
</tr>
<tr>
<td>BBMB 676</td>
<td>Biochemistry of Gene Expression in Eucaryotes</td>
<td>2</td>
<td>Alt. Spring, 2014</td>
</tr>
</tbody>
</table>

*Footnote: GDCB 545 – Plant Molecular, Cellular, & Developmental Biology may be used to fulfill any ONE of the required component areas.

In addition to the above course requirements, MCDB graduate students are required to take:

1. Two semesters of research seminar every year
   - One of these seminars must be MCDB 698, Seminar in Molecular, Cellular, and Developmental Biology. In seminar, students will make journal and research presentations and attend MCDB seminars.
   - Subject to approval by the POS committee, acceptable alternatives to fulfill the second seminar requirement include 1) a "for credit" research seminar series offered by the student's home department, 2) a workshop comprised of a research seminar series, or 3) another ISU research seminar series.

2. One credit hour of ethics training

Not required, but highly recommended for MCDB graduate students:
Core Course Curriculum Requirements for MCDB Majors seeking a Master’s Degree

Students seeking an M.S. degree must take a total of 30 credits, with not less than 22 credits earned at ISU. M.S. students have the same core course requirements, including seminar courses, as Ph.D. students, but may remove either the cellular, developmental or molecular biology requirement (however a course in each of these three categories is recommended). M.S. students are not required to teach, but may apply for teaching assistantships if needed and if they have passed appropriate SPEAK/TEACH requirements.

Curriculum Requirements for Graduate Students Seeking a MCDB Minor

Graduate students studying at Iowa State University with an interest in completing a MCDB minor for their Ph.D. are required to complete the following curriculum requirements.

Students must be approved for the minor by the MCDB program and must follow Graduate College guidelines for POS Committee membership.

Graduate students wishing to seek a minor in MCDB are encouraged to contact the MCDB Interdepartmental Graduate Program Coordinator for further information. Inquiries can be submitted to idgp@iastate.edu.

MCDB Minor Curriculum at the PhD Level Includes:

Two semester sequence of Biochemistry (either BBMB 404/405 or BBMB 501/502)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBMB 404</td>
<td>Biochemistry I</td>
<td>3</td>
<td>Fall</td>
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<tr>
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<td>Biochemistry II</td>
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<td>BBMB 501</td>
<td>Comprehensive Biochemistry I</td>
<td>4</td>
<td>Fall</td>
</tr>
<tr>
<td>BBMB 502</td>
<td>Comprehensive Biochemistry II</td>
<td>4</td>
<td>Spring</td>
</tr>
</tbody>
</table>

One course in each of two of the following three areas: A) Cellular Biology, B) Developmental Biology, & C) Molecular Biology

A) Cellular Biology Course Options Include:

<table>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GDCB 528</td>
<td>Advances in Molecular Cell Biology</td>
<td>3</td>
<td>Alt. Fall, 2014</td>
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<tr>
<td>GDCB 529</td>
<td>Plant Cell Biology</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>BMS 575</td>
<td>Cell Biology</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>BBMB 645</td>
<td>Molecular Signaling</td>
<td>2</td>
<td>Alt. Spring, 2015</td>
</tr>
</tbody>
</table>
### B) Developmental Biology Course Options Include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
<th>Footnote</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDCB 512</td>
<td>Plant Growth &amp; Development*See Footnote</td>
<td>2</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>GDCB 533</td>
<td>Principles of Developmental Biology</td>
<td>3</td>
<td>Alt. Fall, 2013</td>
<td></td>
</tr>
</tbody>
</table>

### C) Molecular Biology Course Options Include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>Micro 502</td>
<td>Microbial Genetics &amp; Genomics</td>
<td>3</td>
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<td>GDCB 511</td>
<td>Molecular Genetics</td>
<td>3</td>
<td>Spring</td>
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<tr>
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<td>Genetic Engineering</td>
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<tr>
<td>BBMB 676</td>
<td>Biochemistry of Gene Expression in Eucaryotes</td>
<td>2</td>
<td>Alt. Spring, 2014</td>
<td></td>
</tr>
</tbody>
</table>

*Footnote: GDCB 545 – Plant Molecular, Cellular, & Developmental Biology may be used to fulfill any ONE of the required component areas.

### In addition to the above course requirements, MCDB graduate minors are register once for:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCDB 698</td>
<td>Seminar in Molecular, Cellular, &amp; Developmental Biology</td>
<td>1-2</td>
<td>Fall &amp; Spring</td>
</tr>
</tbody>
</table>

### Changes for students who wish to co-major in MCDB & Neuroscience

If a MCDB PhD student wishes to co-major in Neuroscience, please stop by the Interdepartmental Graduate Program Office, 2018 MBB to request co-majoring. There is an evaluation process by the Neuroscience Program.

1. Alternate between MCDB 698 (Seminar) and NEURO 690 (Research/Journal Club); two semesters every year with one of those semesters being MCDB 698 and the other being NEURO 690.
2. For MCDB students who wish to co-major in Neuroscience: NEURO 556 would be acceptable to fulfill one of the courses in MCDB.
3. GDCB 528 (Advances in Molecular Cell Biology) may be taken as an elective course for Neuroscience students who elect to co-major with MCDB. This course also fulfills a MCDB requirement.
4. Three credits of Neuroscience electives will be waived. To fulfill the MCDB requirements, a Neuroscience Program student must take an additional semester of Biochemistry (BBMB 405) and one additional core MCDB course.
**MCDB 698**

*Journal Discussion/Student Presentations*

MCDB 698 is a student seminar series. Students present their research to the other students in the class. The purpose of MCDB 698 is to help you develop formal oral and visual communication skills that you will use at scientific conferences, for teaching, and for job interviews after you graduate from the program. In addition, other members of the class are expected to participate and gain experience in thoughtfully critiquing the presentation and asking questions. Students in the audience are encouraged to ask questions to foster thought-provoking discussion on the speakers’ research. The audience consists only of other students and the instructor so that students will not be intimidated by senior faculty or other scientists. Students can feel free to ask “dumb” questions, which almost always are not so dumb.

First or second year students may present a journal paper or other research that is not their own, if they do not have enough of their own data to present. If a journal paper is used, the other students in the class will read the paper before participating in discussion. The presenter is expected to present a brief review of the background material and then discuss the material presented in the paper.

**Graduate English Requirements for Nonnative Speakers of English**

**English Placement Test**
This test is for non-native English speakers who DO NOT have a prior Bachelor’s or Master’s or Ph.D. degree from a U.S. college or university. If you have a Bachelor’s, Master’s, or Ph.D. degree from a U.S. college or university, where the language of instruction was English, you need to fill out a Graduate English Requirement Approval form found on the Graduate College forms webpage:  
[http://www.grad-college.iastate.edu/forms/forms.html](http://www.grad-college.iastate.edu/forms/forms.html).

The English Placement Test should be taken at the beginning of your first semester of enrollment. It must be taken in addition to TOEFL (Test of English as a Foreign Language), which is taken as part of the admissions process. A student who does not pass this examination is assigned to one or more courses in the English 101 series. This course work must be completed during the first year of study.

Testing Information for English Placement Test:  
Department of English/ESL  
[ENGLISHL@iastate.edu](mailto:ENGLISHL@iastate.edu)  
515-294-3568  
[http://www.public.iastate.edu/~apling/ept.html](http://www.public.iastate.edu/~apling/ept.html)

**Certification of English Requirement:**  
Graduate College SPEAK/TEACH Program, 1116 Pearson Hall  
515-294-1958
Testing of Nonnative Speaking Students Who Teach

SPEAK/TEACH testing is required of graduate students who fit both of the following categories:

- those who are not native speakers of American English (i.e., learned another language first), and
- those who are to be appointed to or considered for teaching assistantships or who will have some teaching responsibilities even if they are not teaching assistants (TAs).

The SPEAK/TEACH tests of oral proficiency are given before the beginning of fall and spring semesters. Registration is required prior to testing. Information regarding specific test dates, registration, testing, and scoring can be found on the program website, http://itas.grad-college.iastate.edu. TAs and faculty with questions about SPEAK/TEACH testing should call 515-294-1958 or 515-294-7996.

A prospective teaching assistant who does not pass these tests is required to successfully complete course work and be retested. Sections of the courses University Studies 180 and 511 are designed to help new teaching assistants. These courses focus upon pronunciation, listening, question handling, teaching and lecturing skills, and an introduction to the culture of U.S. university life. Because enrollment is restricted in University Studies 180, TAs cannot register for the courses through Access Plus registration. TAs must appear at the SPEAK/TEACH Office, 1137 Pearson Hall, on the first or second day of classes for fall or spring semester to obtain permission to enter the course by completing a course add slip.

PROGRESSING THROUGH YOUR DEGREE PROGRAM

Committee Appointment and Program of Study

After you have chosen a major professor and home department, you will, in consultation with your major professor, decide on a suitable program for completion of your graduate course work. As soon as you have chosen a major professor, it is then necessary to appoint a graduate Program of Study (POS) Committee. The composition and responsibilities of the POS Committee will be in accordance with the Graduate College guidelines as detailed in the Graduate College handbook. Current minimum requirements for the composition of Program of Study Committees are summarized on page 20 of this Handbook.

The POS committee should include faculty whose research interests can aid and complement your research interests, as well as faculty whose expertise will ensure that you graduate with a breadth of knowledge. The POS Committee for a doctoral program must consist of at least five members of the Graduate Faculty. The Graduate Faculty is listed in the appendix of the Graduate College Handbook, found online on the Graduate College
website. The committee must include at least three faculty members, including the major professor, from within the MCDB major. At least one faculty member must be either outside the MCDB major or outside of your home department.

The POS committee for a master’s student must consist of at least three members of the Graduate Faculty. It must include two members, including the major professor, from inside the MCDB major. One member of the committee must be either outside the major or outside of your home department.

Once the chosen members of the POS committee have agreed to serve, you should complete the Graduate College form "Recommendation for Committee Appointment". Have the committee members sign it, and submit it to the MCDB program chair for approval. A copy of this form and instructions for its completion are available at http://www.grad-college.iastate.edu/forms/forms.html. On the committee form, under major, print or type: MCDB. After official appointment of the committee, copies of the form will be returned to you and your major professor. A third copy is placed in your file in the MCDB program office.

Changes to your committee made after the completion of the “Recommendation for Committee Appointment” form has been approved should be made on a “Request to Change Committee Appointment” form. A copy of this form is available at http://www.grad-college.iastate.edu/forms/forms.html.

The next step is to call your committee together, inform them of your research plans, and ask for their evaluation of your plans. This is also the time to complete your “Program of Study” (POS) form. A copy of this form and instructions for its completion are available at http://www.grad-college.iastate.edu/forms/forms.html. This should be done by the first semester of your second year (i.e. within six months of choosing your major professor). The Graduate College Program of Study is one of the more important documents you will encounter while in graduate school. In essence, it is a contract between you and the Graduate College indicating the minimum course work that must be taken to complete a Ph.D. or M.S. No changes can be made to it without the mutual approval of yourself, your committee, and the Graduate College. On the line identified as “Major”, the POS form should read: MCDB.

Changes that occur in a student’s program of study because of changed objectives, courses not available at any appropriate time, or because courses themselves are changed should be approved by the student’s committee and DOGE (MCDB Chair) for the major. Such changes need not be sent to Graduate Dean for approval until the student is ready to file for graduation. When the student is preparing to graduate, the student should prepare a memo listing any changes to the originally filed program of study that were approved previously by the committee and the DOGE, the major professor should also sign the memo, and it should be sent to the Graduate College.
Other types of changes to the student’s program of study should be submitted to the Graduate College on a completed “Modifications to the Program of Study” form. A copy of this form is available at [http://www.grad-college.iastate.edu/forms/forms.html](http://www.grad-college.iastate.edu/forms/forms.html).

**Hint for completing POS form:** Be sure that you use the correct course name, number, and designation [ex. BBMB versus Biochem].

**Evaluating Your Performance**

Continued membership in the MCDB program and financial support from the major professor or home department are contingent upon satisfactory progress towards your degree. Students are required to meet with their POS committee at least once each calendar year. At the end of the first year, and thereafter, students will document their own progress by preparing a brief annual report of their coursework, research, exams, POS meetings, and other professional activities. This report will be due at the end of the Summer session. The “Annual Report of Academic and Professional Activities” is available at the MCDB Office, 2018 Molecular Biology Building. It will be evaluated by the MCDB Chair or Graduate Affairs Committee on the following basis:

- Grades: A cumulative GPA of at least 3.0 is required by the Graduate College for continued appointment to an assistantship
- Performance in laboratory rotations and progress in selection of a major professor (if applicable)
- Progress in initiation of your research project
- Progress in forming POS Committee, completing a Program of Study, and completion of preliminary exam
- Progress in presenting research results

A notation of progress and recommendations for continuance in the major or corrections of deficiencies are sent to the major professor and are deposited in the student’s file.

**Dismissal Policy**

Students may be dismissed from the MCDB program, that is, removed from the degree program and not permitted to register as MCDB graduate students. Dismissal may occur for any of the following reasons:

a) Failure to progress in his/her degree program
   This may be evidenced by a lack of research progress, a lack of aptitude or a failure to maintain satisfactory academic standing, as defined by the Iowa State University Graduate College Handbook.
b) Lack of a major professor

Because graduate degrees in MCDB at ISU are centered about a mentored research project, it is impossible to complete a degree without a research mentor (major professor). To maintain membership in MCDB, a student must have an MCDB faculty member serving as his or her major professor. A student admitted to MCDB on rotation has up to 12 months to find a major professor. It is the responsibility of the student to find a faculty member willing to serve; faculty members have the right to refuse. Faculty members who have agreed to serve may chose to terminate their service by notifying and explaining to the MCDB Chair this intent, in writing. A student who has lost his or her major professor has up to 3 months after the date the MCDB Chair is notified by the faculty member to identify another MCDB faculty member willing to serve as his or her major professor. If the student desires assistance, the MCDB Chair will help the student search for a major professor; however, final responsibility for finding a major professor rests with the student.

c) Academic Dishonesty

The proper conduct of science requires the highest standards of personal integrity. Because of this, the University and MCDB consider dishonesty in the classroom or in the conduct of research to be a serious offense. Students accused of academic dishonesty will be dealt with according to the procedures outlined in the University Catalog and the Faculty Handbook. Possible punishments can include dismissal from the program and expulsion from the University, depending on the severity of the offense.

**Dismissal Procedures**

A student's POS committee, or if the student has no POS committee, the student's major professor, temporary advisor, or a member of the MCDB Supervisory Committee has the right to recommend dismissal of any student for any of the reasons listed above. Recommendations for dismissal are made by sending a memo to the MCDB Chair.

Procedures for dismissal are as described in the Iowa State University Graduate College Handbook.  
[http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html](http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html)

Before a dismissal is decided, the MCDB Chair must give the student a written notice explaining why dismissal is being considered. It is the responsibility of the MCDB Chair to discuss the situation with the student, as well as their POS committee, major professor, temporary advisor, and/or Executive Committee, in an attempt to find a satisfactory resolution. This discussion constitutes the informal conference as described in the Graduate College Handbook. If a satisfactory resolution cannot be reached, and the Executive Committee votes to dismiss the student, either party may bring the issue to the attention of the Associate Dean of the Graduate College for a decision. The student may appeal the decision of the Associate Dean, as described in the Graduate College Handbook.
**Responsibilities of MCDB and the Major Professor**

It is the responsibility of MCDB to counsel students who are having academic difficulties, to help students search for an acceptable major professor or, if students are unable to overcome these difficulties, to help the students identify and apply to other appropriate degree programs. It is the responsibility of the major professor and his/her department to seek funds for a student’s assistantship and for the conduct of research.

**Relationship between Status in MCDB and Termination of Financial Support**

Although students in MCDB are normally supported on graduate assistantships, this is not a requirement for continued participation in MCDB. Students not on assistantship will continue to have regular status in the major so long as they remain in good standing and are registered.

However, because assistantship support at Iowa State requires that a student be a member of a graduate program, dismissal from MCDB requires that assistantship support be terminated unless the student is able to transfer to another graduate program at ISU.

In addition, termination of financial support by a major professor does not necessarily imply that the faculty member is no longer willing to serve as the student's major professor or that the student's membership in MCDB will change. Decisions regarding termination and renewal of assistantships are made by the department or program offering the assistantships, which in most cases is not MCDB. Students with any doubt about their status should discuss their situation with their major professor, the MCDB chair, and/or the department or program providing their assistantship support. For further information on termination of assistantship appointments, see the *Graduate College Handbook*.

**Appeal Process**

The University has established appeal processes for student grievances. These vary depending on the nature of the grievance, and are described in the *Graduate College Handbook*. Generally, these procedures begin with the program chair or the appropriate DEO. It is usually best for all parties if a satisfactory resolution can be reached without initiating a formal appeal process. The Associate Dean of the Graduate College is available to informally consult with students and faculty.

**Graduate College Requirements for Composition of Program of Study Committees**

Below is listed the current minimum requirements for the composition of Program of Study Committees. The rules are established by the Graduate College, but are listed below in terms of a student majoring in MCDB. All individuals listed below must be members of the
Graduate Faculty. See the *Graduate College Handbook* for a complete explanation and instructions on how to have co-major professors, additional members, etc.

<table>
<thead>
<tr>
<th>Major Professor(^1,2)</th>
<th>Inside MCDB</th>
<th>Ph.D.</th>
<th>M.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committee Member</td>
<td>Inside MCDB</td>
<td>2X</td>
<td>X</td>
</tr>
<tr>
<td>Committee Member</td>
<td><em>Either not MCDB or not</em> home department</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Committee Member</td>
<td>Any Member of Graduate Faculty</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Minimum Total</td>
<td></td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

\(^1\)The major professor, or one of the co-major professors, must hold graduate faculty status. The list of graduate faculty can be found in the Appendix of the *Graduate College Handbook*.  
\(^2\)If the major professor holds a Collaborator appointment, there must be a co-major professor who holds regular faculty status.

**Dissertation Research Proposal**

Ph.D. candidates majoring in MCDB must present a description of their proposed dissertation research to their POS Committees at or before the time they submit their proposed Program of Study to their POS committee for approval. The proposal may include a written component submitted to the POS Committee prior to an oral presentation. The POS committee will determine the length and formality of the written and oral components. Research proposal requirements, if any, for master’s degree candidates are determined by their home departments.

Note: Some departments or POS committees may require their students to present formal, detailed research proposals later in their degree program, for example, in conjunction with a formal departmental seminar, or as a part of the preliminary exam. If a POS committee so desires, they can require an MCDB student to fulfill such additional proposal requirements.

**Preliminary Examinations**

All graduate students must pass certain examinations before obtaining their advanced degrees. A preliminary oral examination is required of Ph.D. degree students by the Graduate College. This examination should be completed by the end of your third year. Preliminary exams for students majoring in MCDB must include a written component as well as an oral component. The nature of the written component is determined by the POS Committee and home department. In some departments, part of the written component is given as periodic written examinations (called cumulative exams). The Preliminary Oral Exam is given by the student to his/her POS Committee. It is the student’s responsibility to arrange an appropriate date, time, and location for the oral prelim. The “Request for
Preliminary Oral Examination” form is available at the MCDB Program Office, 2018 Molecular Biology Building, or in the administrative office of your home department. This request form must be submitted to the Graduate College at least two weeks prior to the oral exam. Master’s degree candidates are not required to take a Preliminary Examination.

Writing Your Thesis

MCDB accepts theses written for M.S. or Ph.D. degrees in either the traditional format or the so-called “alternative format”, which includes one or more papers designed for submission to a journal. Writing in “alternative format” will help you learn to write papers and, at the same time, shorten the time it takes for your thesis research to be published. The “alternative format” is more commonly used and is strongly encouraged. It is usual that some chapters of your dissertation will already have been published in peer-reviewed journals. The Graduate College Thesis/Dissertation website, http://www.grad-college.iastate.edu/current/thesis/, is a resource developed to help all Iowa State University graduate students with this important part of their degree.

Preparing for Graduation

Each semester, the Graduate College publishes the deadline dates, http://www.grad-college.iastate.edu/deadlines/, for submission of appropriate forms and paperwork. It is a good idea for students approaching their graduation term to review this information and be sure to observe all appropriate deadlines. Early in the semester in which you expect to graduate, you must submit to the Graduate College an “Application for Graduation” form, or “Diploma Slip”. This form indicates your intended date of graduation, exact thesis or dissertation title and other relevant information. This important form can be found online at http://www.grad-college.iastate.edu/forms/forms.html. Currently, the deadline for submitting an Application for Graduation form is the Friday of the first week of the semester. If you do not graduate at the expected time, a new diploma slip must be submitted at a later time. It is of note that you are charged a graduation fee when you submit your Application for Graduation form. This fee may not be refundable.

After the dissertation or thesis has been completed and all the other requirements have been met, except for the Final Research Seminar and Final Examination, you should consult with your major professor and POS Committee to arrange a time for the Final Research Seminar and Final Examination. You must also request permission from the Graduate College to schedule the Final Examination using the “Request for Final Examination” form. The “Request for Preliminary Oral Examination” form is available at the Immunobiology Office, 2018 Molecular Biology Building, or in the administrative office of your home department. This request form must be submitted to the Graduate College at least three weeks prior to the oral exam.
**Final Research Seminar**

All students are required to present a formal, public seminar describing their completed research. The seminar must be announced *at least two weeks in advance* to the MCDB faculty and students and other members of the Iowa State academic community. Please notify the MCDB office staff of the time and place of the seminar. The program coordinator will assist you in sending a seminar announcement to appropriate individuals.

**Final Examination (Defense)**

The Final Examination for the Ph.D. and M.S. degrees is an oral defense of your dissertation or thesis given by you to your POS Committee and any other faculty who wish to attend. This examination reviews the dissertation or thesis and your knowledge of relevant subjects. In many departments, the oral defense follows immediately after the Final Research Seminar. Talk to your major professor to determine the best way to schedule your Final Research Seminar in relation to your Defense. It is best to schedule the final defense and research seminar well in advance.

The results of the examination are reported on the "Report of Final Examination" form that will be sent by the Graduate College directly to your major professor after receiving the Request for Final Examination form.
Checklist for Completion of Graduate Requirements for MCDB Majors

Student: ________________________________
Degree Sought: __________________________
Date Started: ____________________________
Major Professor: _________________________
Co-advisor (if any): ______________________
Major: MCDB
Minor or Co-Major: ______________________

For each requirement in the following sections, list the term and year you met the requirement, for example, F13, S14, or SS14. If you have not completed a requirement yet, leave the line blank. Times when you should normally complete each requirement are indicated in parentheses.

Academic Requirements

Joined Laboratory of Major Professor: ____________________________________________
(No later than May 1, 2014)

POS Committee Formed: _______________________________________________________
(Within six months of joining your major professor’s laboratory)

Research Proposal Presented to POS Committee (Ph.D. only): ______________________
(Prior to submitting your Program of Study to your POS Committee)

Program of Study Approved by the Graduate College: _______________________________
(Within six months of joining your major professor’s laboratory)

Preliminary Exam (Ph.D. only): _________________________________________________
(First semester of third year)
*Note: The preliminary exam must include a written component.

Dissertation Submitted to POS Committee: _______________________________________
*Note: Unless an exception has been approved, your thesis must include one or more first author papers written in a form suitable for submission to a journal. The thesis must be given to your POS committee at least two weeks prior to your defense.

Final Research Seminar:
*Note: This must be a public seminar and the announcement must be given to the MCDB Office to distribute to all MCDB faculty and students. If possible, the seminar should be given during a regularly scheduled seminar series. For Ph.D students the final defense must be held at minimum 6 months after the prelim.

Name of Seminar Series and Date Given: _________________________________________

Defense Date: _____________________________
Course and Training Requirements

If more than one course is possible to meet a specific requirement, circle course taken and indicate the semester completed (ex: F13, S14, SS14). If a requirement has been waived, indicate date of approval for the waiver.

*Note: All courses and non-course training taken during an M.S. program in MCDB counts towards the Ph.D.

Core Courses

Cellular Biology: Semester Completed _____________________
(GDCB 528, *GDCB 545, BBMB 645, or BM.S. 575)

Developmental Biology: Semester Completed _____________________
(GDCB 533, *GDCB 545)

Molecular Genetics: Semester Completed _____________________
(GDCB 511, *GDCB 545, BBMB 676, Micro 502, GDCB 520, VMPM/PlP 608)

Biochemistry: Semester Completed (please list separately) _____________________
(BBMB 404/405 or BBMB 501/502)

Other Required Courses

MCDB 698 ________ ________ (Seminar)
MCDB 699 ________ ________ (Research)

Teaching
(One semester) ________

*The transferability of credits from other institutions will be determined on a case-by-case basis by the student’s POS committee and the MCDB Chair. To waive a course requirement, send a memo, signed by your major professor (on behalf of your POS committee) and the instructor of the course you wish to waive, to the MCDB Chair. The memo should state that you have already received satisfactory instruction in the subject matter covered by the required course. Credits for seminars, workshops and colloquia are not transferable.
Surviving It All

One of the first genuine shocks for many students in graduate school is how hard they need to work to keep up with all their classes, research, and other responsibilities. The pressures on individual students vary with their departments, professors and projects. However, most students find that they need to work harder as graduate students than at any time before in their lives. The number of hours per week can be staggering. If you are like most students and discover there simply aren’t enough hours in the day, the best way to survive is to learn how to select your priorities and focus on them. Your professor and/or more experienced students can give you advice. You are also encouraged to seek advice from the MCDB Chair or members of the MCDB Supervisory Committee. If you are feeling overwhelmed with personal or professional obligations and stress the Iowa State University Student Counseling Services office offers additional resources. Student Counseling Services are available on the third Floor of the Student Services Building. Their phone number is 294-5056. You may also access additional information on their program website, http://www.public.iastate.edu/~stdtcouns/.

FINANCIAL MATTERS

Your Appointment

Most students in MCDB receive financial support. However, both the source of the support and the responsibilities associated with it vary from situation to situation. Students entering MCDB directly usually receive a research assistantship (RA) funded by MCDB during their first year; thus, for these students the amount of the stipend for the first year is usually determined by the MCDB program. Stipends for students supported by departments are governed by departmental policies. The responsibilities associated with your stipends depend on whether you have an RA or a teaching assistantship (TA). Information about these forms of support is available in the Graduate College Handbook.

Most entering students do rotations (See the Rotations section of this handbook), while some are “direct admits” who go directly to a professor’s lab. Rotating students entering in the Fall are funded by the Graduate College according to the terms of their Letter of Intent. Usually this agreement will guarantee funding from the Graduate College until the end of the spring semester. The University will provide full tuition for the first year.

When a professor agrees to serve as the student’s major professor for the student’s Ph.D. research, (preferably by the end of March), the major professor must begin funding the student’s stipend and tuition.

Upon joining a lab the student’s stipend is determined by the major professor according to the professor’s department’s policies, unless the student has been awarded a special fellowship. This stipend may be lower than the stipend provided by MCDB to rotating
students. Funding situations may change for a student during their years of study. Each fiscal year (beginning July 1) the student signs a new Letter of Intent that specifies the terms of funding for the coming year.

All graduate students receiving support through an assistantship will sign a Graduate Assistantship Letter of Intent that lists the terms and conditions of their appointment. Generally, graduate assistantship appointments are on a "one-half time" basis. Although technically this means that a student being paid through an assistantship is expected to work 20 hours per week ("half time") on the project for which the assistantship is given (the other half being classroom training), in practice the student is expected to work more than 40 hrs per week on classroom learning and lab research. After the first year, the vast majority of the student’s time is spent doing laboratory research. A Teaching Assistantship is for work in an assigned class; a Research Assistantship is for the research of the major professor. The research project for which the RA is given will usually (but is not required to) coincide with the student’s thesis research. "Half-time" is the maximum time appointment for a graduate student in order to allow the remainder of the student’s time to be spent on graduate courses and research. Appointments may be terminated by mutual consent or for cause as described in the *Graduate College Handbook*. If you have any questions regarding your appointment, speak with the staff in the MCDB office, 2018 Molecular Biology Building.

The university provides a full tuition scholarship to Ph.D. graduate students with an RA or TA. In addition, such students are considered Iowa residents, for purposes of tuition assessment. While a student’s tuition may be provided by their assistantship, there are student fees which are the responsibility of the student. These fees are assessed at the beginning of each semester or term and include charges for the health facilities, technology, etc. Additional information on fees and expenses can be found on the Tuition and Fees webpage from the Office of the Registrar, [http://www.registrar.iastate.edu/fees/](http://www.registrar.iastate.edu/fees/).

Payday at the University is the last working day of each month. Your paycheck will be sent through campus mail to you by the ISU Treasurer to the university address you have given to Human Resources in Beardshear Hall, or you may authorize the Treasurer to deposit your check in a bank of your choice by completing an authorization form available at the Records Office, 3810 Beardshear Hall, or on AccessPlus. It is strongly recommended that you have your check sent to a banking institution. If applicable, deductions are made for Federal and State income taxes and Social Security.

**Grants for Research**

The GPSS, Graduate and Professional Student Senate, [http://www.grad-college.iastate.edu/gpss/](http://www.grad-college.iastate.edu/gpss/), provides Professional Advancement Grants (PAG) to support graduate student research. The Senate will provide up to a maximum of $300 to each person submitting a research proposal. The projects for which you submit the proposals must be unrelated to your thesis or dissertation research. It is appropriate for you to apply for these funds during your first year while you are rotating through research labs.
Grants for Professional Travel

Attendance and presentation of research results at professional meetings are essential parts of your training. All students should, if possible, attend at least one national or international meeting during their degree program.

Students should normally seek funds for travel from their major professor or department. However, to assist your travel when funds from your major professor or department are insufficient, you may request funds from the Graduate College and/or Graduate and Professional Student Senate using the “Request for Professional Advancement Grant” form. Forms are available on the Graduate College forms webpage, http://www.grad-college.iastate.edu/forms/forms.html. The form can also be found on the Graduate and Professional Student Senate website, as detailed above.

Some funding agencies have a 90-day limit for turning in travel expense vouchers. If your trip is being supported in part by funds from your major professor, be sure to turn in your travel expense voucher soon after you return to ensure that you will be reimbursed.

Benefits

ISU Student and Scholar Health Insurance Program

Single student coverage under the ISU Student Health Insurance Plan is provided free of charge to all graduate assistants at ISU. Additional information about the Student Health Insurance Program can be found on the Student and Scholars Health Insurance Program website, http://www.hrs.iastate.edu/sship/homepage.html. You will need to enroll in the Student Health Insurance Program. You may do so through your AccessPlus account. Enrollment for the 2013-2014 academic year closes on September 13, 2013. You will receive insurance cards and a benefit certificate within a few weeks. Newly employed personnel should not drop any other insurance they may have until they know the beginning date of the ISU insurance. In 2013-2014, the ISU Student and Scholar Health Insurance Program at Iowa State University is administered by the Chickering Group. The Iowa State Student Health Insurance Coordinator may be contacted in 0570 Beardshear Hall or at 515-294-4820. The Aetna Student Health website for the Iowa State University plan is http://www.aetnastudenthealth.com/stu_conn/student_connection.aspx?groupId=812805&P ageID=mpr/.

All international students, whether on assistantship or not, are required to carry the ISU Student Health Insurance or to be covered by another health insurance policy. For more information, contact International Students and Scholars (ISS) in Room 3248 of the Memorial Union (294-1120).
**Prescription Drug Benefit Program**

Graduate students receive single coverage free of charge in a prescription drug benefit program that reduces the cost of generic and prescription drugs available at the Thielen Student Health Center. For details, contact the ISU Student and Scholar Health Insurance Plan, 515-294-4820. For a spouse or family to participate you must enroll in the SHC insurance health plan for your spouse or family. This option is only available through payroll deduction.

**Health Service**

As a student, you are eligible to use the ISU Health Service. A mandatory health fee of $98.00 and an $8.00 health facility fee per semester are assessed to all students registered for five or more credits per semester (can vary for summer session). This health fee pays for some services offered at the Thielen Student Health Center. The health facility fee goes towards the cost of the Student Health Center building. For students enrolled for under five credits, the health fee is optional. Please note that these fees can change without notice.

**Vacations and Sick Leave**

Vacation and sick leave does not accrue for graduate assistants and is set at the discretion of your major professor. One possible scenario is that a research assistant with a half-time appointment (C base) will earn vacation at a rate of eight hours per month. Because you are half time, this would be equivalent to two calendar days. You can take vacation with the approval of your academic advisor and by notifying your departmental secretary or, in the first year, the IMBIO office staff. Accumulated vacation time is forfeited upon completion of your appointment. (See your Graduate College Handbook for detailed information.)

To obtain approval for vacation time you need to fill out an Absence Request card. In your first year, the card needs to be signed by your temporary advisor and submitted to the Immunobiology office at least three days before you leave. In later years, Absence Requests will be handled by your home department. Students on assistantships (RA or TA) are employees of ISU and therefore are allowed time off on official university holidays, but any absence preceding or following the official holiday is counted as vacation. For additional details, see the University Policy Manual, [http://policy.iastate.edu/](http://policy.iastate.edu/).

**Teaching assistants** are subject to the academic calendar and do not accumulate vacation time. However, they are not required by the University to work when classes are not in session. Graduate assistants on teaching assistantships should, nevertheless, get permission from their major professor before taking a vacation from their research responsibilities.
If you will be absent because of an illness, you should call your advisor or major professor as soon as possible on the day you are sick and must be absent. On your return, you will need to fill out an Absence Request form for sick leave. You should also use the form in advance when you have a planned absence for medical reasons. Maternity/Paternity leave can be taken as sick leave and/or vacation.

*Injuries and Injury Reports*

All accidents and injuries occurring at work or in the course of employment must be reported to the employee's supervisor (your professor or the administrative offices of MCDB or your home department), even if no medical attention is required. The supervisor and/or employee are responsible for electronically completing a First Report of Injury via AccessPlus. The Supervisor is then responsible for reviewing this and electronically submitting it to the Human Resource Services within 24 hours of when the incident is reported. Incidents that are not reported may cause an employee to be ineligible for future benefits related to this injury or illness. The filing of an accident report is not an admission of liability. Each report will be evaluated by the state's third party administrator to determine whether the claim meets the criteria to be classified as workers' compensation. Please refer to the University’s Human Resources webpage for additional Worker’s Compensation information, http://www.hrs.iastate.edu/hrs/node/73.

**ADMINISTRATIVE MATTERS**

*Administrative Assistance*

There are a number of offices on campus to help with the administration of your graduate program. The main one for MCDB students is the Interdepartmental Graduate Programs office, 2018 Molecular Biology Building. General program questions or questions relating to University requirements, procedures, and deadlines may be directed to the MCDB Program Coordinator. Academic advice about courses and rotations will be provided by your temporary advisor or major professor. See the Academic Matters section of this handbook.

Katie Blair, Program Coordinator  
Interdepartmental Graduate Programs  
2018 Molecular Biology Building  
☎ 515-294-7252  
E-mail: kblair@iastate.edu

*Office and Home Addresses*

The MCDB program needs to know your local address and telephone number and also needs to be informed of any changes in your address or phone number that may occur during your tenure in the program. All first year MCDB RAs will receive campus mail in the MCDB
Your permanent office (desk) address will be determined once you have chosen a major professor. You can update your campus and residence addresses/contact information through Access Plus: https://accessplus.iastate.edu/frontdoor/login.jsp.

**Communications**

It is vital that you maintain good contact with MCDB personnel throughout your graduate program. There are a number of ways to do this:

**E-mail:** During orientation you will be assisted in establishing an Iowa State University E-mail account. E-mail should be checked at least daily as this is the primary means of keeping our students informed about program activities.

**Internet:** The MCDB home page will contain most of the information that pertains to ongoing program events. The address is http://www.mcdb.iastate.edu/.

**Mail Service:** You will normally pick up your mail in your home department. If you have not yet chosen a home department, mail will be sent to you at 2018 Molecular Biology Building. You will be notified when you receive mail.

**Telephone:** Local calls (phone numbers in Ames) may be made on most campus phones, including the phone in 2018 Molecular Biology. Long distance calls must not be made on University phones without the prior approval of the person to whom the phone is assigned.

**Bulletin Board:** General messages about the MCDB program will be posted on a bulletin board located outside the administrative office (2018 Molecular Biology Building).

**Transportation**

**Bicycles:** You can park your bicycle at many locations on campus. Except for walks labeled as bike paths, bicycle riders must not use campus sidewalks. A bicycle used between sundown and sunrise must be equipped with a headlight, taillights or an adequate reflector, and a warning device. Bicycles used only on campus can be registered free through the ISU Parking Office. Bicycles used off campus must be registered by the city of Ames.

The city of Ames requires that all bicycles be licensed. The cost is $5 for a two-year permit. The licenses may be obtained from various locations in Ames (all bike shops in Ames, Ames City Offices (finance), the University Book Store, Cub Foods, and Hy-Vee) or from the Parking Systems Office in the Armory on campus.
**Buses:** The city of Ames has an excellent bus system called CyRide. During the school year the buses leave from most locations every 20 minutes. The fare is free for students if you show a current, paid University fee card. The CyRide website is [www.cyride.com](http://www.cyride.com).

**Cars and Parking:** A copy of the ISU Traffic and Parking Regulations can be obtained from Public Safety, Parking Division, 27 Armory, or online at: [http://www.parking.iastate.edu/](http://www.parking.iastate.edu/)

*Consult the section covering students.

**Help in Preparing Material for Research Presentations**

The Instructional Technology Center on campus provides services relating to visual and audio media. For example, slide projectors, videotape players, etc. can be taken out on loan by departments, students, faculty, and staff. There is a section of the Instructional Technology Center, known as Creative Technology Services that prepares graphs and designs as requested by the purchaser.

**Professional Ethics**

It is imperative that you understand the ethical standards of science and conduct your scholarly activities accordingly. Scientists who commit unethical acts, whether from carelessness, ignorance, or malice, quickly lose the respect of the scientific community and may be prevented from receiving funding support. Scientific misconduct includes such activities as: falsification of data, fabrication, deceptively selective reporting, purposeful omission of conflicting data with the intent to falsify results, plagiarism, representation of another’s work as one’s own, misappropriation of the ideas of others, the unauthorized use of privileged information, misappropriation of funds or resources for personal gain, and falsification of one’s credentials. At ISU, these acts are taken very seriously and constitute “academic misconduct”. Please refer to the ISU Faculty Handbook and the Graduate College Handbook: [http://www.provost.iastate.edu/resources/faculty-handbook](http://www.provost.iastate.edu/resources/faculty-handbook)  
[http://www.grad-college.iastate.edu/publications/gchandbook/](http://www.grad-college.iastate.edu/publications/gchandbook/)

Individuals found guilty of academic misconduct may suffer a variety of penalties, up to and including expulsion from the university.

Occasionally, you may be faced with situations in which you are tempted to act in a manner you think might be unethical. If this occurs, we recommend discussing the situation with your major professor, or another professor whom you trust, to determine whether the actions you are considering are unethical. He or she should be able to suggest alternative actions that will be free of ethical questions.

Unfortunately, not all people understand or care about ethical issues and, at some time in your career, you may be witness to an act you believe to be unethical. When the individuals
committing the presumed unethical acts are members of your own laboratory, or worse yet, individuals with power over you, such as your major professor, the situation can be very awkward and you must proceed cautiously. You will find yourself torn between a fear of retribution and a desire to stop the unethical behavior before it hurts you and other members of your laboratory.

If you believe that unethical behavior is going on in your laboratory, we recommend that you first attempt to discuss the situation informally with the person whom you think might be behaving unethically. Sometimes friendly questions will resolve the problem, such as “This data looks almost perfect; how did you do this experiment?” or “Are you sure that you can omit that data point? Won’t that prejudice your interpretation?” or “This paragraph doesn’t sound like your writing; are you sure you didn’t unintentionally copy some of this?”

If you feel uncomfortable in this approach, or if you have tried this approach and it didn’t resolve the problem, we recommend that you discuss the situation informally with a professor whom you trust. You may also go directly to the Chair of MCDB or a member of the MCDB Supervisory Committee. All discussions with the Chair and the MCDB Supervisory Committee members will be confidential. You may also go directly to Associate Vice Provost for Research, 2810 Beardshear Hall, who is responsible for investigating charges of academic misconduct on campus. No matter what you chose to do, you should take great care to ensure the rights of the individual whose actions you are questioning. Frivolous accusations of misconduct and vicious spreading of rumors are just as unethical as fabrication of data or plagiarism.

**Discrimination, Sexual Harassment, Nondiscrimination and Affirmative Action**

The University Policy on Discrimination and Harassment can be read in its entirety at [http://policy.iastate.edu/policy/discrimination/](http://policy.iastate.edu/policy/discrimination/).

The University Nondiscrimination and Affirmative Action Policy can be found at the Iowa State University Policy Library website, [http://policy.iastate.edu/](http://policy.iastate.edu/). This policies website will provide guidance to you on how to proceed in addressing any concerns.
APPENDIX

Important Forms

All of the forms you need to turn in to the Graduate College should either be available for
download at http://www.grad-college.iastate.edu/forms/forms.html or available upon
request at the MCDB Office, 2018 Molecular Biology Building; or the administrative
office of your home department.

Forms mentioned in this handbook:

Available Online:

- Request to Establish a Home Department for Students Admitted to Interdepartmental
  Majors
- Recommendation for Committee Appointment
- Request to Change Committee Appointment
- Program of Study
- Modifications to the Program of Study
- Application for Graduation (Diploma Slip)

MCDB Office or Home Department Administrative Office:

- Request for Schedule Change or Restriction Waiver
- MCDB Annual Report of Academic and Professional Activities
- Request for Preliminary Examination
- Request for Final Examination