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## INTRODUCTION

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This Handbook serves as a guide to graduate studies in The Department of Biology at the University of New Mexico by setting forth the practices, procedures, rules and regulations that apply to the major academic aspects of graduate activities. It is a supplement to the *UNM Catalog* (*referring back to it as you progress through your graduate program*), which should also be consulted for additional details. ***IT IS YOUR RESPONSIBILITY TO CAREFULLY READ THIS HANDBOOK AT THE BEGINNING OF YOUR GRADUATE PROGRAM. DON'T PUT YOURSELF AT A DISADVANTAGE BY NOT TAKING THE TIME TO FULLY UNDERSTAND THE RULES AND REGULATIONS DESCRIBED WITHIN IT.***

This Handbook is about the nuts and bolts of graduate education—subjects that at times seem to be hurdles or arbitrary constraints. Such policies are needed to maintain a rigorous, equitable and smoothly functioning graduate program in the Department. Policies, however, only form the framework of a graduate education; you must complete the structure and determine the depth and quality of your training by selecting the most appropriate programs of course work and research and by making the most of the many opportunities that graduate work provides. This is a period in which you should be able to become **fully** involved in biology, to live and breathe science, and to experience a growing professional awareness and confidence. It affords the opportunity for you to take an active role in shaping the nature of your future professional life and contributions, and to form lasting personal and professional relationships.

To maximize these benefits, both you and the Department must make commitments. The Department must make available the resources, both intellectual and physical, that are necessary for you to pursue your program and realize your potential, and must give you every opportunity to maximize your scholarly growth. For your part, you must take advantage of the many opportunities the Department and UNM offer by being highly motivated to study biology in the first place, and by directing that motivation in a productive manner. If you and the Department proceed appropriately, the policies outlined in this Handbook should become guidelines and exciting challenges rather than hurdles or hindrances.

## ADMISSION TO THE GRADUATE PROGRAM

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Applications for admission to the Graduate Program in Biology are reviewed by a departmental Graduate Student Selection Committee. This Committee evaluates whether or not 1) the individual meets the admissions standards of the Department, 2) a suitable sponsor is available in the applicant's expressed area of interest, and 3) the applicant appears to have the potential to satisfactorily complete graduate degree work. If an application is approved by the Graduate Student Selection Committee *and* a member of the Biology Graduate Faculty agrees to serve as a sponsor for the student, he or she may be accepted into the Department, contingent upon acceptance into the UNM Graduate School. One must be accepted into *both* programs to qualify for consideration for financial support from the Biology Department.

Applicants are encouraged to contact prospective faculty sponsors as early as possible to discuss their application. Information regarding faculty and their interests can be obtained from the application packet available from the department's Graduate Program Coordinator (UNM Biology Department, MSC03 2020, 1 University of New Mexico, Albuquerque, NM 87131-0001 USA), by calling the Biology Department (505/277-3411), or from the department's web site (<http://biology.unm.edu>).

## APPLICATION DEADLINE

Applications are evaluated once each year, early in the Spring semester, for admission for the following Fall semester. **The deadline for all required application materials is JANUARY 15th of each year.** Applications received after this date *may not* be considered.

## APPLICATION MATERIALS CHECKLIST

Your application must include the following materials:

- The following materials are to be sent to: The Biology Department, MSC03 2020, 1 University of New Mexico, Albuquerque, NM 87131-0001.
- - 1. A \$50.00 Non-Refundable Application Fee Made Payable to "The University of New Mexico."
  - 2. Application/Residency Form.
  - 3. Official Transcripts (Two official copies from each college/university attended).
  - 4. A Letter of Intent—a detailed letter stating your specific areas of interest, career goals, reasons for pursuing a graduate degree in biology, and possible faculty sponsors.
  - 5. Three (3) Letters of Recommendation
  - 6. GRE Scores (General and Biology Subject test) sent directly from the testing agency.
  - 7. Departmental database sheet.
  - 8. Other Material to Strengthen Your Application (reprints, a current CV, etc.).

In their review of applications, the Graduate Student Selection Committee initially screens materials on the basis of the following *minimum* criteria:

- 1) a Bachelor's degree from an accredited college or university. The degree must have been granted prior to the date on which you intend to enter the UNM graduate program. The Bachelor's degree does not necessarily have to be in Biology, but 12 semester hours of upper-division biology (300 or above) are required;

- 2) an overall grade point average of 3.0 (on a 4 point scale) and at least 3.2 on biology courses;
- 3) a minimum total GRE aptitude score of 1100 (Verbal and Quantitative combined); and
- 4) basic courses in physics, math and chemistry are essential.

### **DEFERRED ENROLLMENT**

Students admitted for the fall semester can ask permission to defer enrollment if they have a good reason for not beginning their studies immediately. Students wishing to defer enrollment must notify the departmental Graduate Program Coordinator in writing. This request must also be approved by the Graduate School. A deferral is limited to a period within one calendar year. If that limit is exceeded, the student would have to re-apply for admission into the Biology graduate program.

### **NON-DEGREE STATUS**

Students who may have missed the annual admission's deadline and who wish to begin their graduate studies as soon as possible may take "non-degree status" credit hours prior to seeking formal admission. Up to *nine* hours of such credit may be applied to the student's degree requirements, assuming the student is eventually formally accepted into the graduate program.

### **INTERNATIONAL APPLICANTS**

An additional packet of information prepared by the Office of International Admissions is available from the Biology Department's Graduate Program Coordinator and should be consulted in its entirety. All the application materials should be sent directly to: The Office of International Admissions, MSC06 3720, 1 University of New Mexico, Albuquerque, NM, 87131-0001, USA. Once processed by the International Admissions Office, the application materials will be sent here to the Department of Biology.

Unfortunately, we are unable to automatically offer first-year teaching assistantships to those foreign students whose native language is not English. If, by their second year, these students demonstrate sufficient command of written and spoken English, doctoral students will be eligible for support for their next four years of study and master's students are eligible for one year of support. If a student is not eligible for a first-year teaching assistantship, they are encouraged to communicate with their probable faculty sponsor about other sources of financial support.

## **DEGREE PROGRAMS**

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Graduate students in the Biology Department may undertake one of three degree programs: M.S. Plan I, M.S. Plan II, or Ph.D. Each serves a specific purpose and you should select the program that is appropriate for your long-term goals. While it is possible to transfer from one program to another, a program can be planned more effectively if your decision is made at the outset of your studies.

## **M.S.**

Two alternatives exist for obtaining a Master's degree in Biology. The **M.S. Plan I** program provides advanced training in a subdiscipline of Biology that emphasizes research preparation. A combination of course work and active research provides a program that develops an ability to conduct scientific research. This plan often leads to a Ph.D. program, either at the University of New Mexico or another institution. A thesis or its equivalent is required.

The **M.S. Plan II** stresses advanced course work in Biology and may involve no active research by the student. No thesis is required and students generally take more course work than in the Plan I program. Plan II is most appropriate for individuals desiring exposure to biology course work beyond that obtained in a typical B.S. program. You should *not* register for this program if your career goal involves substantial research or technical laboratory work, or if you intend to pursue a Ph.D. degree at UNM.

## **Ph.D.**

The emphasis of the **Ph.D.** degree is upon advanced training in the subject matter and conceptual bases of a subdiscipline of Biology and upon demonstration of the ability to design and implement significant independent research at an advanced level. The degree program in Biology is designed to develop both scholarship and technical expertise as the foundations for continuing scientific activity and contributions.

While many students enter the Ph.D. program after obtaining a Master's degree, it is often preferable to design a program for the Ph.D. that bypasses the M.S. degree. You should confer with your prospective Major Advisor or a member of the Biology Graduate Faculty before you begin your graduate studies if you are at all uncertain about which program is most appropriate for your goals.

## **CHANGING DEGREE PROGRAMS**

If you were originally admitted into the Master's program and then decide to pursue a Ph.D. degree, you *must* notify the Graduate Policy Committee of your intention. This decision can *not* be made unilaterally by the student and his/her Committee on Studies. You will be evaluated, along with other applicants, by the departmental Graduate Student Selection Committee during their normal screening period in early spring. Be aware that a change from a Master's to a Ph.D. program will alter the number of semesters of teaching assistant financial support to which you are entitled (see "Duration of Financial Support," page 29).

After starting a Ph.D. program, you may decide instead to pursue a M.S. degree. Again, your eligibility for departmental support will be altered. A change from Ph.D. to an M.S. degree can be made with the approval of the Committee on Studies. Attach the approvals from your committee members to the "Change of Degree level" form found at the OGS website <http://www.unm.edu/~ogshmpg>.

### **DUAL DEGREE PROGRAM**

Students in dual degree programs must complete both degrees in the same semester. Students must adhere to the general degree requirements. For detailed information, refer to the graduate section of the UNM catalog.

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## **THE MAJOR ADVISOR AND GRADUATE COMMITTEES**

## MAJOR ADVISOR

The Major Advisor plays a key role in fostering your progress as a developing scientist; he or she is responsible for establishing your plan of study and course work, for seeing that you progress toward degree requirements in a timely fashion, for helping to assemble your Committee on Studies, and, most importantly, for working closely with you in your graduate research. The bonds you form with your major professor during your graduate studies are often firm and lasting, and are founded upon a close, professional working relationship. Accordingly, you should select a Major Advisor with care. Major Advisors *must* be members of the Biology Graduate Faculty.

Professors differ in their philosophies of graduate training: some spend considerable time with their students, closely directing their studies, often training students who continue his or her own lines of research. Other professors allow their students to explore widely and view their role as a sounding board on which students may try out new research ideas; at the extreme, this can produce a situation in which the student receives little direction and may flounder unless he or she is highly motivated and independent. Most professors, of course, fall somewhere between these extremes. You should consider such aspects of style and personality along with the idea of expertise or research activity of a faculty member in your selection of a sponsor.

A graduate student in Biology must have a Major Advisor at all times throughout his/her graduate program. While acceptance by a sponsor is a prerequisite for admission into the Graduate Program of this department, this does not mean that this relationship must be fixed for the duration of your graduate studies. Often students establish contact with a professor prior to completing their application for admission to the Department, but later elect to choose another faculty member to serve as their Major Advisor. You should not hesitate to consider changing your Major Advisor if your scientific interests diverge or your personalities are incompatible. The Major Advisor also has the right to terminate his/her relationship with a student if the relationship becomes strained, if the student's progress is unsatisfactory, or if the student exhibits inappropriate behavior. If your current arrangement does not seem to be working, you should discuss this change with your Major Advisor before making a decision to change professors. Either or both of you may then wish to involve the prospective new advisor and the Chairperson of the Department in these discussions.

If a graduate student's relationship with the Major Advisor is ended, either by the student, the advisor, or both, the student has 60 days to obtain a new Major Advisor. If a new advisor is not obtained on this schedule, the student will be terminated from the Graduate Program in Biology. This termination will eliminate any future financial support of the student by this department. It is the student's responsibility to find a new Major Advisor according to this schedule and provide a letter, co-signed by the new Major Advisor, requesting a change in advisors, to the Chairperson of Biology and the Chair of the Graduate Policy Committee. The final decision on the student's request to change to a new Major Advisor will be made by these two chairs.

In some cases, it may be appropriate to have two individuals serve as co-chairpersons of your Committee on Studies and as your Major Advisors. At least one of these individuals must be a member of the Biology Graduate Faculty. An Adjunct Professor of Biology may serve, along with a member of the Biology Graduate Faculty, as a co-chairperson. An Adjunct Professor may not serve as the sole chairperson of the Committee on Studies.

## COMMITTEE ON STUDIES

The Committee on Studies helps the student to plan an integrated program of study that will satisfy the goals of the student and the degree requirements of the Department and UNM. The Committee determines the course work necessary for satisfaction of degree requirements, recommends transfer of credits from other institutions, establishes and certifies completion of the non-biological skill requirements, certifies that the residency requirement has been met, and interacts with the student in the formulation and implementation of the research program. Normally, for Ph.D. students, the Committee on Studies serves as the core of the Dissertation Committee.

You must confer with your Major Advisor ***within the first semester*** of your graduate studies about the establishment of your Committee on Studies. For Ph.D. candidates, the Committee must be appointed *before* 24 graduate credit hours are completed. In addition to the Major Advisor, the Committee on Studies for both M.S. and Ph.D. degrees must contain at least two additional UNM faculty members, at least one of whom must be a member of the Biology Graduate Faculty. The composition of the Committee must be approved by the Major Advisor. The membership of the Dissertation Committee of Ph.D. candidates is larger than that of the Committee on Studies (see below); it is a good idea to form the larger committee at the outset of your program.

The Committee on Studies of each graduate student who is in residence in the Biology Department ***must meet with the student at least once during each academic year***. The format of this meeting is open, but it should provide an opportunity for the Committee to monitor the student's progress, discuss course work, review recent research efforts, plan future research, etc. ***A brief (one paragraph) report of this meeting must be placed in the student's file in the Department Office by the student's Major Advisor within one week of the meeting.*** This form, and others needed to document the fulfillment of departmental degree requirements, may be obtained from the Graduate Program Coordinator.

**You should take the initiative in prompting your Major Advisor to call this meeting when it is most appropriate for you, and use it to present your most recent ideas to your Committee or to obtain their guidance on the problems that seem most pressing to you.**

You have the right to call for a review of the membership of your Committee at any time. You may call for such a review, or address any other grievance, to your Committee Chairperson (Major Advisor), the Department Chairperson, the Dean of Graduate Studies, or the Faculty Senate Committee on Graduate Programs and Standards.

## PH.D. DISSERTATION COMMITTEE

The Ph.D. comprehensive examination is administered by the Committee on Studies. The Ph.D. dissertation is reviewed by a Dissertation Committee, which must include at least four members. Three members must hold tenure track positions. Of these three, two must hold tenure track positions at The University of New Mexico. One of these must be from the Biology Department. The fourth individual must be a tenure track member of the UNM Graduate Faculty outside the Biology Department or from another institution other than UNM, and must be qualified to review the dissertation; the remaining members normally are those who composed the Committee on Studies. In addition, the Biology Department suggests that an individual at another college or university should be asked to serve as an outside reader of the dissertation. This individual should be chosen on the basis of his or her competence in the research area of the dissertation, and should be invited to serve in this capacity at least six months prior to the completion of the dissertation. Funds may be available to bring outside readers to the campus at the time of the final exam, if you and your Major Advisor consider it worthwhile. All committee members must be present at dissertation defense or by teleconference if needed. A complete copy of the dissertation must be submitted to each member of your Dissertation Committee **at least two weeks before the final examination.**

## REGISTRATION

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You should confer with your Major Advisor or one of the department's Graduate Advisors *before* registering for each semester. This provides an opportunity to assess your academic progress, to change courses required on your degree program, if needed, and to maintain contact with your Advisor. UNM follows a pre-registration procedure in which students who are currently enrolled receive registration materials for the next semester from the Office of Admissions and Records prior to the last month of the current semester. If you do not receive these materials, you should contact that office. Returning students who have not pre-registered may register using the UNM I-TEL system. You should make every effort to pre-register or register on time. A late-registration fee is assessed if you fail to register at the scheduled time. You may not register in graduate courses later than the end of the second week of a regular semester, or the end of the first week of a summer session, without the approval of the instructor(s) and the Dean of Arts & Sciences. If you hold an appointment that grants a tuition waiver, you **must register for a full load (12 credit hours) each semester.** This may be done by adding hours of Biology 551 (Problems), 599 (Master's Thesis), 651 (Advanced Field Biology), or 699 (Dissertation), as appropriate.

## REQUIREMENTS FOR MASTER'S DEGREE

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To meet the formal requirements for the Master's degree, you must:

- 1) attend the New Graduate Student Seminar (Biol. 500). Attendance is mandatory; no credit will be offered;
- 2) successfully complete the course work requirements for Plan I or II with a cumulative GPA of at least 3.0;
- 3) successfully complete the non-biological skill requirement (see p. 23);
- 4) have a Program of Studies approved by the Graduate Dean no later than the semester prior to graduation (see p. 11);
- 5) pass the Master's Examination and/or Master's Exam for Thesis (see p. 12);
- 6) submit a research proposal under Plan I (see p. 22); and
- 7) present and successfully defend a thesis acceptable to the Department and the Graduate Dean (Plan I only; see p. 12).

In either Plan I or Plan II, you and your Major Advisor may design a program of studies in which all work is done in the major department, in the major department and the minor department, or in the major department and one or more related departments.

The following provisions must also be observed:

- 1) programs meeting the minimum requirements of Plan I or II do not automatically constitute a master's program. Each program must be approved by the Department and the Dean of Graduate Studies;
- 2) after the Program of Studies has been filed, minor changes between Plans I and II may be made only with the approval of the Department and the Dean of Graduate Studies. A new Program of Studies form must be filled out and approved if any major changes are made to a Program of Studies;
- 3) all work offered toward fulfillment of degree requirements must fall within a 7-year period;
- 4) if you opt for a formal minor as part of your program, 1) you should consult with a member of the minor department in the planning of that program; and 2) the Biology Department shall include a faculty member from the minor department on your Master's Examination Committee, unless this right is waived by the Chairperson of the minor department; and
- 5) for rules on transfer credits see the UNM Catalog.

## **COURSE WORK REQUIREMENTS**

### **PLAN I.**

1. A minimum of **24 hours** of biology-related course work (exclusive of Biol. 500 and thesis hours [Biol. 599]) with a minimum of **15 hours** of graduate level Biology courses. The number of hours refers to semester hours in the combined major and minor (or related) fields.
2. A minimum of 6 hours of 500-level course work.
3. A maximum of 6 hours of Problems (Biol 551) and 5 hours of Field Biology (Biol 651).
4. Only 12 hours (exclusive of thesis hours) may be taken with a single professor.
5. At least 50% of required course work must be completed after admission to the graduate program, unless further limited by the graduate program.
6. Three courses selected from the Graduate Curriculum. Three UNM Biology Department courses of 400 or 500 level (excluding 402/502, 500, 551, 599 or 651). Two courses have to be 500 or above, or all three courses can be 500 level.
7. A minimum of 6 Thesis hours (Biol. 599).
8. Completion of a master's thesis.
9. A maximum of 9 hours of course work done in non-degree at UNM may be included in the Master's degree.
10. Course selection must be made with the approval of the student's Committee on Studies. Students with interests in ecology and evolution are strongly encouraged to take Biology courses 516 and 517.

## PLAN II.

1. A minimum of **32 hours** of biology-related course work (exclusive of Biol. 500) with a minimum of **18 hours** in the major field and **12 hours** in the minor, if a minor is declared. The number of hours refers to semester hours in the combined major and minor (or related) fields.
2. A minimum of 12 hours of 500-level courses.
3. A maximum of 12 hours of Problems (Biol 551) and a maximum of 8 hours of Field Biology (Biol 651).
4. Only 12 hours may be taken with a single professor.
5. At least 50% of required course work must be completed after admission to the graduate program, unless further limited by the graduate program (16 credit hours UNM).
6. Three courses selected from the Graduate Curriculum. Three UNM Biology Department courses of 400 or 500 level (excluding 402/502, 500, 551, 599 or 651). Two courses have to be 500 or above, or all three courses can be 500 level.

7. A maximum of 9 hours of course work done in non-degree at UNM may be included in the Master's degree.
8. Course selection must be made with the approval of the student's Committee on Studies. Students with interests in ecology and evolution are strongly encouraged to take Biology courses 516 and 517.

## **CURRICULUM REQUIREMENTS**

Master's students are required to complete the course requirement within their first year in the program. This requirement will be tracked by a **Graduate Curriculum form** signed by the student's Committee of Studies listing the courses to be taken and signed by the Major Advisor when the courses are completed.

## **PROGRAM OF STUDIES**

A Program of Studies for the Master's Degree should be filed with the Dean of Graduate Studies after you have completed 12 hours of graduate work and ***no later than the last day of classes of the semester before*** you expect to complete degree requirements. (The total number of hours needed for the degree are to be listed on the candidacy form.) Tool skills must be completed and filed along with the Program of Studies.

This form may be obtained either from the Office of Graduate Studies (OGS), the OGS web site (<http://www.unm.edu/~ogshmpg>) or from the Biology Department Office. The Program of Study listed in the application should be planned in consultation with your Major Advisor; both your Advisor and the Department Chairperson must approve the form before it is submitted to the Dean of Graduate Studies. Approval of this form will be given only after 1) all undergraduate pre-requisites have been satisfied; 2) at least 12 hours of graduate credit have been completed with a B average or better; and 3) the departmental non-biological skill requirement has been met or has been decided on and approved.

## **NOTIFICATION OF INTENT TO GRADUATE**

You need to officially inform the Biology Department and the Dean of Graduate Studies of your intention to complete all degree requirements during that semester (Fall, Spring or Summer, respectively) by completing the Intent to Graduate form (obtained from the Graduate Program Coordinator's office) and submitting the form to the Biology Department no later than mid July for Fall semester), 1<sup>st</sup> week in December for Spring semester, last week in April for Summer semester. Degrees are awarded three times during the year; {Biology} commencement exercises are held only in May.

## **REQUIRED ENROLLMENT**

Master's students electing either Plan I or Plan II must be enrolled for at least 1 graduate credit either in thesis (Biol 599) for Plan I, or in project, problems (not to exceed 12 credit

hours), or another graduate course for Plan II for the semester (including the summer session) in which they complete degree requirements.

## THESIS

Each candidate for the Master's degree under Plan I must submit a thesis that gives evidence of capacity for sound research. (see page 19) The thesis must be approved by your Committee of at least three faculty members. The Thesis Director will serve as Chairperson of this Committee and assume the major responsibility for guiding the student's work.

A complete draft of the thesis should be submitted to your Committee well in advance of the anticipated graduation date. A one-page sheet of instructions is available from the UNM Bookstore; the thesis format is available also at the OGS web site (<http://www.unm.edu/~ogshmpg/manuscripts/guidelines.html>).

If you are following Plan I, you must complete a minimum of 6 hours of Thesis (599) credit. Having once registered for Thesis, you must then continue to register for a minimum of 1 hour of Biol. 599 during each regular semester (exclusive of summer, unless you plan on graduating during that semester) until the thesis is approved by the Graduate Dean. This rule applies whether or not you are enrolled for anything else. ***A thesis from a student who is not enrolled for the current semester is not acceptable.***

Two copies of the typed/word-processed thesis, together with two copies of an 150-word abstract, all in perfect form and approved by your Committee, shall be submitted for the approval of the Dean of Graduate Studies by November 15, April 15, or July 15 for Fall, Spring or Summer, respectively. *A third copy shall be given to the Biology Department for its collection.*

## MASTER'S EXAMINATION

The Master's Examination and/or Master's Exam for Thesis must be passed by all candidates for the Master's degree. The examination, drawn from the major and minor or related fields as appropriate, may be written, oral, or both, at the option of the Committee on Studies; it is conducted by your Committee. The master's exam may be taken only after the Program of Studies has received approval.

The examination for the Master's degree will be conducted by a committee of three members approved for graduate instruction, at least two of whom must hold regular, full-time faculty appointments at UNM. The chair of the examination must be a regular faculty member. Non-regular faculty may serve as co-chairs.

Under Plan I, your Major Advisor usually serves as Chairperson of the Committee. The examination may be given only after the Program of Studies has been approved by the Graduate Dean; the student must be in good standing.

***At least two weeks prior to the date of the Master's Examination and/or Master's Exam for Thesis***, the student must notify the Biology Department and the Dean of Graduate Studies of the date, time and place of the examination. A form to do this is available from the

Department's Graduate Program Coordinator and must be submitted to the Department no later than November 1 (Fall), April 1(Spring), or July 1(Summer).

You must be notified of the results of the examination no later than two weeks from the date of examination. If your Committee anticipates being unable to meet this deadline, it must give you written notice to this effect prior to this examination; in this event, you must be notified of the results of the examination no later than three weeks from the date of the examination. The results of examinations taken between semesters or during the summer must be given no later than two weeks after the first day of classes of the next regular semester. Results of the examination shall be provided to the Office of Graduate Studies by November 15 (Fall), April 15 (Spring), or July 15 (Summer). If a candidate fails the examination, a six-month interval should elapse before a second examination is given. A candidate may take this examination only twice. Failure to pass the second time will result in the student's termination from the graduate program.

### **SUGGESTED SCHEDULE FOR M.S. IN BIOLOGY**

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***It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures. All the forms mentioned in the following schedule are available from the Department's Graduate Program Coordinator.***

#### **YEAR 1**

- Arrange for Major Advisor; set up Committee on Studies. This Committee *MUST* meet with the student *AT LEAST ONCE A YEAR*. (**Committee on Studies Form**)
- Submit Research Proposal; start research. For Plan I students only. (**Research Proposal Approval Form**)
- Start non-biological skill. Plan I and Plan II students. This requirement may be filled by six or more credits of either a language or statistics/math/biometry, etc. The credits you use for the Tool Skill may be transferred from another institution. (**Tool Skill Form**)
- Make formal Program of Studies with the Biology Department and the Office of Graduate Studies, after completing 12 hours of graduate course work. For Plan I and Plan II students. (The **Program of Studies Form** should list all course work to be counted toward the degree)

#### **YEAR 2**

- Write thesis. Plan I students. The **Certification of Final Form, Report on Thesis** (“gray sheets”—one to be filled out by each reader of your thesis) and Title Pages (these are on bond paper and have red-line borders that can be purchased at the bookstore or downloaded from the OGS web site [<http://www.unm.edu/~ogshmpg/eforms/index.html>] and printed in color).
- Notify the Department and the Office of Graduate Studies of your intent to graduate. Complete the **Intent to Graduate Form**, obtained from and returned to the Biology Department’s Graduate Program Coordinator’s office.
- Take Master’s Examination (Plan II students) or Master’s Exam for Thesis (Plan I students). (**Exam Announcement Form**)

If you decide, *with the approval of your Committee of Studies*, to change from Plan I to Plan II, or vice versa, and you have already had your Program of Studies approved by the Dean of Graduate Studies, you need to submit an entire new Program of Studies to your Major Advisor, the Department Chair, the department’s Graduate Program Coordinator, and the Dean of the Graduate School for approval.

#### **IMPORTANT DATES**

- 1) Notify the Office of Graduate Studies of date, time and place of Master’s Exam (using the **Exam Announcement Form**) at least 2 weeks prior to exam.
- 2) Master’s Exam results should be submitted to the Office of Graduate Studies no later than November 15 (Fall), April 15 (Spring), or July 15 (Summer).
- 3) Submit two perfect copies of the approved thesis (Plan I students) to the Office of Graduate Studies no later than November 15 (Fall), April 15 (Spring), or July 15 (Summer). Submit one copy of the thesis to the Biology Department for its collection.

All of the forms mentioned above require a variety of departmental and non-departmental signatures. Please complete all the forms required, obtain all the necessary signatures, *except for the Department Chair’s signature*, and submit the forms to the Graduate Program Coordinator for further processing.

## **REQUIREMENTS FOR THE DOCTORATE**

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***It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures. All the forms mentioned in the following schedule are available from the Department’s Graduate Program Coordinator.***

To meet the formal requirements for the Ph.D. degree, you must:

- 1) attend the New Graduate Student Seminar (Biol. 500). Attendance is mandatory; no credit will be offered;
- 2) successfully complete the course work requirements;
- 3) successfully complete the non-biological skill requirement (see p. 23);
- 4) complete the Ph.D. teaching requirement (see p. 17);
- 5) pass the Ph.D. comprehensive examination (see p. 18);
- 6) apply for and be admitted to doctoral candidacy (see p. 17);
- 7) submit a research proposal (see p. 22);
- 8) present and successfully defend a dissertation acceptable to the Department and the Graduate Dean (see p. 18); and
- 9) register for 12 credit hours each semester if on departmental support.

The Doctorate is a degree representing broad scholarly achievement, a deep grasp of a field of study, and expertise in conceiving, conducting and reporting independent, individual research. As such, its attainment is not simply a matter of “meeting requirements.” The requirements described below should be viewed only as a minimal formal context in which you are expected to grow in the professional stature represented by the doctoral degree.

## CURRICULUM REQUIREMENTS

1. A minimum of **48 hours** of graduate credit course work (exclusive of dissertation hours). *Must have 18 hours of 699 over and above the 48 hours.*
2. Four, (*part of the 48 hours needed*) UNM Biology Department courses of 400 or 500 level (excluding 402/502, 500, 551, 599, 651 or 699) with at least two of the four courses at the 500 level. The four courses must include a minimum of four different graduate faculty members. Students should consult w/major advisor or committee on studies for appropriate courses. These courses must be completed in the first 4 semesters.
3. At least 24 hours of graduate credit course work must be completed at The University of New Mexico of which, at least 18 hours of graduate credit course work must be completed after admission to the doctoral program at The University of New Mexico. (*Part of the 48 hours*) *The six remaining graduate credits to meet the 24 credit hours must be course work completed at UNM. The remaining 24 credit hours to meet the 48 credit hour degree requirements can be applied (includes non-degree or master's course work at UNM or transfer credits)*
4. A minimum of 18 hours of graduate credit course work must be earned in The University of New Mexico courses numbered 500 or above. (*Part of the 48 hours*)
5. No more than 50% of the required course credits at The University of New Mexico may be taken with a single faculty member. (Course work that has been completed for the master's degree is included in this limit)
6. A minimum of 18 hours of dissertation credits (Biol 699) *over and above the 48 credit hours for the degree requirement.*
7. Must be enrolled the semester in which you complete degree requirements, including the summer session. *If student has met the 18 credit hours of dissertation,*

*the doctoral student must enroll with a minimum of 3 credit dissertation hours each semester.*

Course selection must be made with the approval of the student's Committee on Studies. Students with interests in ecology and evolution are strongly encouraged to take Biology courses 516 and 517.

## **DISSERTATION HOURS**

The program for the doctorate includes a minimum of 18 hours of Dissertation (Biol. 699) credit. You should consult with your Major Advisor concerning the time of the initial enrollment and the number of Biol. 699 hours to be carried each semester, 12 hours being the maximum. ***You may not be enrolled in 699 prior to the semester in which you take your comprehensive examination.*** If you fail to complete the comprehensive examination in the semester of the initial 699 registration, you will receive a "W" for 699 for that semester. *If you begin Dissertation research prior to completion of the comprehensive exam, IT IS POSSIBLE TO DO SUCH RESEARCH UNDER BIOL. 551.*

Having once registered for Dissertation credits, you must continue to register for 699 during each regular semester (exclusive of Summer) until the dissertation is approved by the Graduate Dean. All students registered for Dissertation (699) must enroll for 3-9 hours/semester, the number of hours to be determined by consultation with your Major Advisor. The maximum in the Summer Session is 9 hours.

After completing 18 hours of Dissertation enrollment, you may meet the continuous enrollment requirement by enrolling for 3 hours of 699. The Dean of Graduate Studies will not accept a dissertation from a student who is not enrolled for the current semester.

## **FIVE-YEAR LIMIT**

As a general rule, all work offered toward the requirements for the Doctorate must fall within a five-year period after successful completion of the doctoral comprehensive examination. Candidates who have interrupted their graduate education for professional work in their field will generally be granted an extension of the time limit, but a petition must be filed. (See also "Taking a Leave of Absence," page 26.) Any request for an extension of the limit for this or other reasons must be originated by the student, supported by the Department, and addressed to the Graduate Dean.

Note that the period of the department's obligation of financial support to Ph.D. students is the *first* five years (10 semesters) of their period of graduate study (for more details, see "Duration of Financial Support," page 29).

## CANDIDACY

The Doctoral student must apply for and be admitted to candidacy for the degree. The Application for Candidacy is the vehicle that formally summarizes your program of studies.

It is mandatory that all the following requirements be successfully met before you file the Application for Candidacy form. Those requirements are as follows (in no required order):

- 1) Tool Skills (Language Requirement can be part of the tool skill);
- 2) required course work (4 courses, all 400 level or above, at least 2 courses must be 500 level or above). Can use a 502 course if it is not a discussion course or if your Committee on Studies approves it); and
- 3) Comprehensive Examination.

***The student cannot advance to candidacy until these requirements are successfully completed.***

Courses selected to satisfy this requirement will, of course, also count to satisfy the total number of credit hours accumulated for the degree.

Application for Candidacy forms are available at the Office of Graduate Studies, the OGS web site ( <http://www.unm.edu/~ogshmpg>) or the Biology Department Office. The form must be approved by the Committee on Studies and returned to the Graduate Program Coordinator for further processing.

## PH.D. TEACHING REQUIREMENT

One semester of teaching experience in the Biology Department is required of all Ph.D. degree candidates. Although this requirement may be fulfilled in a variety of manners, it must include a minimum of **six lecture hours** delivered by the student in one formal course offered by the Biology Department. You should select the appropriate block of lectures to satisfy this requirement in consultation with your Major Advisor and/or the instructor of the course involved. In addition to delivering the six lectures, the student should be deeply involved in the course as a whole. This should include working with the instructor of the course to design the lectures in a way that fits smoothly into the overall course plan, attending other lectures in the course to obtain a feeling for the style of the course and the interests and level of training of the students, preparing the lecture independently, and participating in the examination of students regarding the material presented in these lectures. Normally, the course selected to fulfill this requirement should be in your own disciplinary area. Undergraduate or graduate courses offered during the regular academic year or courses team-taught with a faculty member or with another graduate student under faculty direction during a Summer Session are appropriate, so long as they are formal courses involving regularly scheduled lectures.

The plan that you propose to follow for fulfilling the teaching requirement must be filed on an appropriate form (available from the Department's Graduate Program Coordinator's office) and approved by the Biology Graduate Policy Committee prior to the semester in

which the requirement is to be satisfied. At the conclusion of that semester, *the instructor of the course must prepare an evaluation of your performance and your Major Advisor must file a statement certifying that the teaching requirement has been satisfied.* These reports become part of your permanent file. The teaching requirement must be fulfilled no later than the semester preceding the semester in which the Final Examination is scheduled.

## **DOCTORAL COMPREHENSIVE EXAMINATION**

The Doctoral student must pass written *and* oral comprehensive examinations in the major field of study. The examinations are not limited to the areas of your course work, but will test your grasp of the field as a whole. You must be in good academic standing to take these examinations. The comprehensive examination may be taken at any time; however, it must be prior to your Application for Candidacy. At least two weeks prior to the planned examinations, you must notify (by using a form available in the Department Office) the Dean of Graduate Studies of the date, time and place of the examinations.

The examinations are normally conducted by the Committee on Studies and such other persons as are appointed by the Department in consultation with the student and with the approval of the Graduate Dean.

You must be notified of the results of the examinations no later than two weeks from the date of the examinations. If your committee anticipates having difficulty in meeting this deadline, you must be given written notice to this effect prior to the examinations; in this event, you must be notified of the results of the examinations no later than three weeks after the first day of classes of the next regular semester.

Results of the examinations shall be reported to the Dean of Graduate Studies on the form provided. If a student fails the examinations, the Committee on Studies shall make an appropriate recommendation to the Dean of Graduate Studies regarding a possible reexamination {which must be administered within one year from the date of the last exam. Failure to pass the second time will result in the student's termination from the graduate program.

## **DOCTORAL FINAL EXAMINATION (DEFENSE)**

All candidates must pass a final examination dealing primarily with the dissertation and its relationship to the candidate's major field.

At least two weeks before the date set for the final examination, you should notify the Dean of Graduate Studies of the date, time and place of the defense (form available from the Department's Graduate Program Coordinator's office). The examination is chaired by your Major Advisor. ***A complete copy of the dissertation must be submitted to each member of the Dissertation Committee at least two weeks before the defense.***

At the conclusion of the examination, the members of the Dissertation Committee shall confer and vote their recommendations, which must be agreed upon by at least three of the

four members. The Committee may 1) recommend that the dissertation be approved without change; 2) recommend that the dissertation be approved subject only to minor editorial corrections, or 3) require that the dissertation be revised before approval. In the case of 1) and 2), no further meeting of the Committee will be needed, although in the case of 2) the Major Advisor will be responsible for seeing that the corrections are made before the dissertation goes to the Office of Graduate Studies. In the case of (3), the full Committee will decide that their stipulations have been met.

A portion of the final examination must consist of a formal, 50-minute oral presentation open to the general public. Formal announcement of this event should be made at least one week in advance of the presentation using the normal format that is used by the Department for regularly invited seminar speakers. After the seminar, the candidate and the Dissertation Committee will meet privately to continue the examination. *Each reader* of the dissertation must fill out an evaluation form ("Report on Dissertation"), and the Chairperson of the Dissertation Committee must, in addition, fill out a "Certification of Final Form" form, which needs to be turned in to the Office of Graduate Studies immediately after the defense. These forms are available at the Biology Department Office or from the OGS web site (<http://www.unm.edu/~ogshmpg>).

## **PH.D. DISSERTATION**

All Plan I M.S. students and doctoral students are required to prepare a thesis or dissertation respectively, as part of the fulfillment of the degree requirements. There are two acceptable, alternative formats for the thesis or dissertation: the traditional and the manuscript-based. The latter is often referred to in the Department as a "hybrid" thesis or dissertation. Students may opt to use either style. However, approval of which style is used will be obtained from their major professor and the members of their examination or dissertation committee prior to preparing the thesis or dissertation.

For either style, the rules and regulations established by the Office of Graduate Studies (OGS) regarding format (Front Matter, Text, Reference Matter, paper dimensions, margins, etc.) must be adhered to. The OGS guidelines are available at <http://www.unm.edu/~grad/manuscripts/guidelines.html>.

### **Traditional Thesis or Dissertation**

The traditional thesis or dissertation is a single manuscript, authored solely by the student, presenting original research performed by the student. The text section is typically subdivided into: Introduction, Materials and Methods, Results, Discussion, References, and Appendices (optional).

### **Manuscript-based Thesis or Dissertation**

A manuscript-based thesis or dissertation is a collection of manuscripts or articles formatted for publication and presented as separate chapters of a single thesis or dissertation. This style must satisfy the following guidelines:

1) the articles or manuscripts must report original research that is primarily the student's or to which the student contributed significantly. The student must be the first author on at least one of the manuscripts in their thesis or dissertation. The inclusion of a particular manuscript in the thesis or dissertation will be with the approval of the student's advisor and the members of the examination committee;

2) the manuscripts must be articles published in a peer-reviewed national or international journal and/or manuscripts prepared for publication in a peer-reviewed national or international journal. This guideline allows for a single thesis or dissertation to consist of a mixture of published and unpublished material;

3) the chapters may be in the format style for the journal to which they are intended. However, the student's advisor and the members of the examination committee have the option to require re-formatting of chapters to a single uniform style;

4) the names of all co-authors on multi-authored manuscripts will be included. If one or more of the manuscripts are already published at the time the thesis or dissertation is submitted, the article's citation will be provided at the beginning of each chapter.

5) Students should consult OGS regulations regarding issues related to copyright. Students are responsible for obtaining permission to use a published, copyrighted manuscript in their thesis or dissertation from the journal in which the paper is published. Students are advised to consult the policies of the journal regarding release of copyright for use in theses and dissertations. Many journals openly state in their policies and guides to authors that published manuscripts may be used for theses and dissertations without obtaining additional permission.

6) the completed thesis or dissertation will contain:

a) an abstract that collectively summarizes the individual manuscripts or chapters;

b) a general introduction that lists the individual manuscripts and describes how each chapter or manuscript relate to a general theme of the thesis or dissertation is recommended. The student should seek the advice of their faculty mentor and members of their thesis examination or dissertation defense committee on the content of the introduction.

c) the articles or manuscripts as separate chapters;

d) a conclusion or summary that provides an overview of the collective findings reported in the separate chapters is recommended at the discretion of the committee;

e) an optional appendix containing any additional material that will not be submitted for publication may be included or a literature review section, as appropriate.

## SUGGESTED SCHEDULE FOR PH.D. IN BIOLOGY

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*It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures. All the forms mentioned in the following schedule are available from the department's Graduate Program Coordinator.*

### YEAR 1:

- Arrange for Major Advisor and set up Committee on Studies. This Committee MUST meet with the student AT LEAST ONCE A YEAR. (**Committee on Studies Form**)
- Begin taking required courses in your area of specialization.
- Choose dissertation project/gather preliminary data.
- Start non-biological skills. Except for foreign languages, this requirement may be satisfied by completing six semester credits per skill area with a grade of B or better. The credits you use for the Tool Skill may be transferred from another institution. (**Tool Skill Form**)

### YEAR 2:

- Take Doctoral Comprehensive Examination. (**Exam Announcement Form**)
- Submit Research Proposal; start research. (**Research Proposal Approval Form**)
- Fulfill Teaching Requirement. (**Teaching Requirement Form**)
- Make formal Application for Candidacy with the Department and the Office of Graduate Studies. The **Application for Candidacy Form** should list all course work to be counted toward the degree. The form must be filled out in duplicate: one for the Biology Department and one for the Office of Graduate Studies.

### YEAR 3–5:

- Set up Dissertation Committee. (**Dissertation Committee Form**)
- Write dissertation.
- Notify the department's Graduate Program Coordinator and the Office of Graduate Studies of Intent to Graduate. Complete the **Intent to Graduate Form**, obtained from and returned to the Biology Department's Graduate Program Coordinator's office.
- Defense of Dissertation. The **Announcement of Final Examination Form, Certification of Final Form, Report on Dissertation** form (one to be filled out by each reader of your dissertation) and **Title Pages** (these are on bond paper and have red-line borders. They can be purchased at the bookstore or downloaded from the OGS web site (<http://www.unm.edu/~ogshmpg>) and printed in red).
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## IMPORTANT DATES

1. Notify the Office of Graduate Studies of date, time and place of Doctoral Comprehensive Exam (using **Exam Announcement Form**) and Defense of Dissertation (using **Announcement of Final Examination for Doctorate Form**) *at least two weeks prior to exam.*
2. Results of the Dissertation Defense should be submitted *no later than* November 15 (Fall), April 15 (Spring), or July 15 (Summer).
3. Submit two final copies of the approved Dissertation, each with an abstract, to the Office of Graduate Studies no later than November 15 (Fall), April 15 (Spring), or July 15 (Summer). *Submit one copy of the dissertation to the Biology Department for its collection.*
4. UMI Fee: All doctoral students, as part of graduation requirements, must have their dissertations published through University Microfilms International (UMI). This involves the completion of a contract, available from the Manuscript Coordinator at the OGS, and payment of a fee (currently \$55, but subject to change) to UMI.
5. In addition to the above mentioned forms that must accompany the dissertation manuscript, **A Survey of Earned Doctorate Form** must be submitted.

All of the forms mentioned above require a variety of departmental and non-departmental signatures. Please get all forms completed up to the point where the Chair's signature is required, then return the form to the Graduate Program Coordinator for further processing.

## RESEARCH PROPOSAL

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Each student registered for graduate studies leading to a research-based degree in the Biology Department must submit a formal research proposal. This proposal should provide relevant literature background for the research that you intend to pursue for the degree and should include a full description of the objectives of the study, the methods of data collection and analysis, and the anticipated results. For students in a Ph.D. program, the proposal should adhere to the guidelines for NSF Doctoral Dissertation Research Grants; for students in a Master's degree program, a shorter proposal, following the same basic format, will suffice. The proposal should be discussed initially with your Major Advisor and Committee on Studies, revised as appropriate, and then submitted to the Biology Graduate Policy Committee for final review and approval. A copy of the research proposal will be placed in your departmental file.

Students registered in a Master's degree program must submit this proposal no later than the end of their second semester in the graduate program. For Ph.D. students, this deadline is the end of the third semester for students who entered with a Master's degree, or the end of the fifth semester for students who initiated their Ph.D. studies with a Bachelor's degree.

The proposal should have the same format as proposals by faculty members for support of their own research (see: "Grants for Research and Education in Science and Engineering," NSF 92-89 Oct. 1992; copies are available in the Department Office and the UNM Office of Research Administration). A project summary (220 word maximum) of the proposed research, suitable for publication, is required. The main body of the proposal should not exceed eight single-spaced typewritten pages and should include: 1) a description of the scientific significance of the work and the design of the project in sufficient detail to permit evaluation; 2) presentation and interpretation of progress to date if the research is already underway; 3) statement of the items for which funds are requested and their estimated costs, with an explanation of their necessity for the research; and 4) schedule for the research including the date funds will be required.

The research proposal should be approved by the dissertation committee as soon as possible after passing the Comprehensive Exam, and at least one year before the anticipated completion of the research. The student's actual research may deviate from the proposed research. The dissertation is judged, after the research has been completed and written up, on whether it meets the quality and quantity requirements rather than whether it exactly follows the research proposal.

## **NON-BIOLOGICAL SKILLS REQUIREMENT**

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Pursuing an advanced degree requires not only training in a specific discipline, but also the development of some skills in related areas that will supplement this training, broaden an individual's exposure to other disciplines, and provide some tools that may be quite useful in later professional work. Accordingly, the Graduate School and the Biology Department require all degree candidates to demonstrate proficiency in one (M.S. Plans I and II) or two (Ph.D.) non-biological skills. Except for foreign languages, this requirement may be satisfied by completing six semester credits per skill area with a grade of B or better. *Courses taken to meet this requirement may not be applied toward the total number of semester hours needed for a graduate degree or contained in the program of study.* You may also satisfy the skill requirement in an area by demonstrating competency in the skill to the satisfaction of your Committee on Studies and the Biology Graduate Policy Committee. Any method of fulfilling the requirement that is not verifiable as university course work must be documented by a memo (from the Chairperson of the Committee on Studies, or the faculty member/agency administering the exam) describing the nature of the work done and the results. This memo should be attached to the Tool Skills form (available in the Department Office) for review at the Office of Graduate Studies.

Acceptance of a student's skills is the responsibility of the Committee on Studies or (for an M.S. Plan II) the Major Advisor, and is subject to approval by the Graduate Policy Committee and the Department Chairperson.

The tool skills requirement may be met by:

- 1) one foreign language and one other non-biological skill;

- 2) two, non-language, non-biological skills; or
- 3) two foreign languages.

The language skill(s) may be met by:

- 1) completion of two years of a foreign language with an average grade of B or better as an undergraduate or as a graduate student (e.g., Spanish 101-102 and 201-202);
- 2) completion of a second year of a foreign language with a grade of B or better as a graduate student (e.g., Spanish 201-202 or Conversational Spanish 203, if offered), provided that the student has taken one year of a foreign language as an undergraduate (e.g., Spanish 101-102);
- 3) passing the national standard language exam; or
- 4) a translation of a paper, with passing to be determined by an appropriate professor in the Foreign Language Department or other acceptable person fluent in the language chosen.

The above criteria also apply to students using a foreign language as a non-biological skill for the M.S.

International students should demonstrate a proficiency in English, **not** in their native language.

Listed below are *some* examples of courses that may be used to fulfill the non-biological skill requirement in other areas. The list is not exhaustive, but does include courses that have received favorable reports from previously-enrolled graduate students.

1) Statistics

Math 312	Partial Differential Equations for Engineering (3)
Math 313	Complex Variables for Engineering (3)
Math 314	Linear Algebra with Applications (3)
Math 316	Applied Ordinary Differential Equations (3)
Stat 345	Elements of Mathematical Statistics and Probability Theory (3)
Stat 427/527	Advanced Data Analysis I (3)
Stat 428/528	Advanced Data Analysis II (3)
Math 441& 527	Probability (3)
Stat 445/545	Analysis of Variance and Experimental Design (3)
Stat 547	Multivariate Analysis and Advanced Linear Models (3)
Stat 485	Non-parametric Methods and Robust Methods (3)
Stat 481/581	Introduction to Time Series Analysis (3)
Stat 440/540	Regression Analysis (3)

2) Computer Science

CS 151	Computer Programming (3)
CS 341L	Introduction to Computing Systems (3)
CS 365	Introduction to Scientific Modeling (3)
Math 375	Introduction to Numerical Computing (2)

CS 433	Computer Graphics (3)
Geog 386	Remote Sensing Systems (3)
Geog 484/584	Applied Remote Sensing (3)
CS 591	Computational Molecular Biology (3)

3) Chemistry / Earth & Planetary Sciences

Chem 563	Thermodynamics (3)
Biomed 448L	Biochemical Methods (3)
EPS 415/515	Geochemistry of Natural Waters (3)
EPS 439	Paleoclimatology (3)
EPS 462/562	Hydrogeology (3)
EPS 481/581	Geomorphology and Surficial Geology (4)
EPS 488L	Scanning Electron Microscopy (3)
EPS 503	Organic Geochemistry (3)
EPS 505L	Stable Isotope Geochemistry (3)
EPS 509	Environmental Geochemistry (3)

4) Biomedical Instrumentation

Biol. 446/546	Laboratory Methods in Molecular Biology (4)
Biol. 547	Advanced Techniques in Light Microscopy (4)

*You must obtain permission in advance from your Committee on Studies and from the Biology Graduate Policy Committee for all non-biological skills requirements. You should select your non-biological skill areas and make arrangements to satisfy the requirements early in your program of study as the courses may be offered only infrequently and because the skill may (in fact, should) be useful in your thesis or dissertation research. It is also possible, with the approval of the Dean of Graduate Studies, to transfer graduate level courses (or undergraduate, in the case of a language) taken at other institutions to use in fulfilling this requirement.*

## EVALUATION OF PROGRESS

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Your Committee on Studies is responsible for the evaluation of your progress toward a degree. A normal, timely completion of program course work and research (along with completion of the various Graduate School requirements) is considered satisfactory progress. The Committee on Studies *must meet at least once a year* and it must enter a brief progress report (form available from the department Graduate Program Coordinator's office) into the student's departmental file.

## **TAKING A LEAVE OF ABSENCE**

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Students may find themselves in circumstances that require them to withdraw temporarily from their graduate program. Under such circumstances, the student should request, in a carefully justified letter to the departmental chairperson, a leave of absence. The written request, together with a memo of support from the chairperson or designee of the graduate unit is forwarded to the Graduate Dean who will make the final decision. The time spent in a leave of absence will not count against a student's eligibility for departmental support.

Students should not take a leave of absence to undertake research work related to their degree. It is not, for example, permissible to take a leave of absence to work on a research grant related in any way to your degree program. Ph.D. students who have passed their comprehensive exam and started enrollment in Biology 699 (Dissertation) must maintain continuous enrollment in this course during their leave of absence.

In cases where the leave of absence becomes prolonged, and there is little hope of a student returning to finish his/her degree program, the chairperson may, in consultation with the student's Committee on Studies, terminate the student's relationship with the department.

## **PETITION PROCEDURES**

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Any policy of the Biology Department applying to graduate students that is not also a policy of the College of Arts & Sciences or other institutional body is open to petition for waiver or modification. Such a petition, however, should be made only under exceptional circumstances. The petition must be made by the advisor, must have been approved by the Committee of Studies, and must be made prior to admission to candidacy. In the case of core requirements, the petition must demonstrate that none of the core courses offered during the relevant two-year period were appropriate and that the suggested substitution is. Granting the petition is solely at the discretion of the Graduate Policy Committee. Petitions will be entertained twice an academic year: once during the Fall semester and once during the Spring semester.

In the event of a disagreement between the Graduate Policy Committee and a student and/or the student's Advisor or Committee on Studies on the interpretation or implementation of departmental graduate policies, a decision may be appealed to the Chairperson of the Biology Department. The appeal should indicate the nature of the problem and the justification for the appeal. If either party involved wishes to dispute the Chairperson's decision, the disagreement may be appealed to a meeting of the Biology Department Faculty. Subsequent appeals must follow standard university procedures. University policy for the petition process is described in the Graduate Program section of the UNM Catalog.

## **POLICY ON TERMINATION**

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A student may be terminated from graduate status for the following reasons:

- 1) receiving three grades of NC and/or F;
- 2) having a cumulative GPA of less than 3.0 for two consecutive, or three cumulative, enrollment periods (semesters); or
- 3) failure to meet program requirements.

If, in the opinion of the Biology Department, a student shows little promise of completing the degree program, the Department will notify the Dean of Graduate Studies in writing that the student is suspended from further work in that program.

This can occur for the following reasons:

- a) twice failing the Master's, Ph.D. Comprehensive, or Ph.D. Dissertation Defense. (Note: the Committee on Studies may choose not to grant a second try after a failure, in which case termination would occur after a single failure.);
  - b) failure to complete various degree requirements within a reasonable length of time (e.g., program course, teaching requirement, foreign language and non-biological skill requirement, or Dissertation); or
  - c) in the event that a graduate student no longer has a Major Advisor (see p. 6).
- 4) Termination will be by personal conference with the student.

## **FINANCIAL AID**

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### **APPLICATION**

Students seeking advanced degrees may apply for financial aid in the form of service awards (Assistantships) and non-service awards (fellowships). Non-service awards are available only in limited numbers. All persons receiving financial aid are rigorously evaluated by the entire faculty each spring with regard to their academic progress and job performance.

Assistants who are not legal residents of the state of New Mexico are asked to apply for such status toward the end of their first year at UNM. A form to apply for residency status is available in the Department Office, or at the Student Services Center. These applications must be notarized.

## ASSISTANTSHIPS AND FELLOWSHIPS

The following general principles and regulations apply to Assistantships and Fellowships of various kinds.

- 1) All Assistantships and Fellowships are primarily grants-in-aid given in recognition of the academic promise of the student and to enable the student to earn a graduate degree. Financial need may also be considered.
- 2) These awards are made only to students currently enrolled, or about to be enrolled, in graduate study.
- 3) To be eligible for appointment or reappointment as an assistant or a fellow, the student must be in good standing in the Department and the Office of Graduate Studies. "Good standing" includes a cumulative GPA of at least 3.0 in their graduate work.
- 4) For graduate assistants, teaching assistants and teaching associates:
  - a) except in rare instances, appointments are made for an academic year, a semester, or a summer session. Assistants are expected to be available for service one week before each semester (or summer session) of appointment. Assistants should be provided with a clear understanding of their major responsibilities as assistants;
  - b) normally an assistant's academic program and assistantship responsibilities should constitute a full-time commitment. Assistantship appointments usually are made for FTE = .50 (no more than 20 hours of service/week, on the average), or for an FTE of .25 or .17; in exceptional cases, other fraction appointments may be made, but none may exceed .75. T.A.s and G.A.s generally receive the same stipend; differential stipends are received by pre-master and post-master assistants;
  - c) assistants are eligible for a tuition waiver of up to 12 hours/semester that meet specific degree requirements when the FTE = .50 (prorated for other FTEs). Unused hours of waived tuition may be carried over into the Summer Session following the academic year or semester of appointment, but not beyond that Summer Session. An assistant paying for hours beyond the tuition waiver is eligible for the resident tuition rate, provided his or her FTE is .25 or higher;
  - d) the assistant is expected to complete at least 12 hours of graduate credit each semester, with 15 hours being the limit;
  - e) the T.A. or G.A. may not accept additional employment (university or non-university) without written permission, renewed each semester, from the Department Chairperson and the Dean of Graduate Studies. Such employment may not

exceed 10 hours/week when FTE = .50, or 20 hours/week when FTE = .25; the maximum FTE is thus .75;

- f) appointment as T.A. or G.A. at FTE = .50 during the Summer Session carries a three-hour tuition waiver (enrollment requirements may vary summer to summer) and a stipend approximating 2/9 of that for the academic year;
- g) assistants are eligible for student health insurance if their assistantship is at the minimum of .25 FTE for the Fall and Spring semesters. The spring student health insurance includes coverage for the summer. If the assistant did not have student health insurance for the spring semester, they will be required to enroll - for a minimum of 3 credit hours in order to obtain student health insurance for the summer; and
- h) the assistant wishing to resign his/her appointment must inform the Department Chairperson in writing and, if possible, allow enough time for a replacement to be found. See "How to Decline a Teaching Assistantship," page 31 .

5) Research Assistants:

- a) assist in research work that is relevant to and ultimately used for the candidate's Thesis, Dissertation, or other requirements for the graduate degree;
- b) are employed for a period not less than one academic semester or the summer period between semesters;
- c) do not generally receive a tuition waiver, but are eligible for the resident tuition rate, provided his/her FTE is .25 or higher; and
- d) are usually employed for 20 hours/week. A research assistant who has been advanced to candidacy may be employed more than half time with the approval of his or her Major Advisor, the Department Chairperson and the Dean of Graduate Studies. Further, a research assistant may be employed up to a maximum of 40 hours/week during the period between the Fall and Spring Semesters and during the Summer Session, if not registered for classes.

#### **DURATION OF FINANCIAL SUPPORT**

The department will make every effort to ensure that all doctoral students, *who are making satisfactory progress toward their degrees*, are offered support for their *first five years (10 semesters) of graduate study at UNM*. At the time of admission, the department will offer a Teaching Assistantship to all doctoral applicants who meet the standards for admission and are accepted into the doctoral program with financial support. Contingent on the availability of funds, the department will continue to offer these students Teaching Assistantships for their first five years.

In rare cases, applicants may be admitted to the Ph.D. program without a guarantee of departmental support. Such students will have stated in writing to the department that they

have access to funds from other sources and have no expectation of receiving departmental financial support. Such students must fulfill all criteria for admissions required of other applicants to the doctoral program.

In any year students may elect to decline the offered Teaching Assistantships in favor of other support, such as Research Assistantships, graduate fellowships or private funds (see guidelines below regarding declination of Teaching Assistantships). However, the departmental commitment of teaching assistant support is only for the five years of graduate study, *regardless of what other means of support students may elect to use during that time*. For example, if a student secures their own financial support from a grant for their first two years of their Ph.D. program, they are not then entitled to an additional five years of departmental teaching assistantship support; rather, they would be eligible for three years of departmental financial support. The department recognizes a responsibility to ensure financial support to all doctoral students who are in good standing and in their first five years of study before admitting new students. (See also relevant comments in "Taking a Leave of Absence.")

Students whose qualifications are as high as those admitted to the Doctoral program, but who apply to the Master's program, will be offered Teaching Assistantships for their first two years (four semesters) of graduate study, provided they continue to make satisfactory progress in the Master's program. Students who qualify for the Master's program but do not have credentials equal to those of students accepted for the Doctoral program, may be admitted, but without any guarantee of support. Students who apply and are accepted for transfer from the Master's to the Doctoral program will be entitled to the same commitment of support as Doctoral students; i.e., they will be offered Teaching Assistantships during their first five years of graduate study in the Department, including the time they have been enrolled in the Master's program.

Students who have earned their Master's degree in the Biology Department at UNM, and who have received departmental financial support in the process, may later choose to seek admission to the Ph.D. program. If admitted, such students will be guaranteed no more than six years (12 semesters) of departmental support *for their entire M.S.—Ph.D. program*. As always, this offer is contingent upon the student making satisfactory progress and on the availability of funds.

Teaching Assistantships that become available after new students have been admitted and after all eligible Doctoral and Master's students have been supported (and normally several such vacancies occur each year) will be offered to Doctoral students who have exceeded their five years of eligibility and/or to unsupported Master's students. Each semester, such students will receive a form enabling them to express their interest in being considered for such a teaching assistantship. Such assignments will be determined by the quality of the student's work and the Department's need for teaching expertise. The Graduate Student Selection Committee is responsible for making these decisions.

## **DECLINING A TEACHING ASSISTANTSHIP**

A serious problem for the department can arise if students who have signed teaching assistantship contracts unexpectedly change their plans. We may, for example, be left without a qualified instructor for a scheduled laboratory section. To minimize this potential problem, prior to each semester, we ask each teaching assistant to complete a form telling us of any changes in their program requiring them to decline their assistantship. We request that students turn in this form by no later than June 15 for the following fall semester or by November 15 for the following spring semester. The department can not guarantee that desired changes in plans made *after* these dates can be accommodated. *If you do not notify the department of your intent to decline a teaching assistantship before the specified date and you then fail to complete your responsibilities as a teaching assistant, the department has the right to, and may decide to, withdraw any commitment of future support.*

## **STUDENT LOANS**

The University administers National Direct and Guaranteed Student Loans and cooperates in the administration of a number of other such funds, including the New Mexico Student Loan Program, for which a pre-loan interview must be scheduled before an application is available from the lender.

The deadline for filing loan applications varies for each semester. For information, please contact the Student Financial Aid and Career Services Office, Student Services Center (505/277-2041). Please apply through the Graduate Office for fellowship grants, and to the Student Financial Aid and Career Service Office for loans and work-study programs.

## **STUDENT EMPLOYMENT**

The University maintains a Career Services Center to assist undergraduates, graduate students and alumni in finding suitable employment. Students desiring part-time employment on or off campus are urged to contact the Student Aid Office.

## **SOURCES OF RESEARCH FUNDS**

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Research usually costs money; you should not hesitate to explore the limited sources of funding available to graduate students. There are three primary sources of research funding on campus available to graduate students:

### **DEPARTMENTAL**

#### **GRADUATE RESEARCH ALLOCATIONS COMMITTEE (GRAC)**

The GRAC is a five-member committee composed of graduate students from the Biology Department. Both travel and research grants are evaluated. Three committee members read and score each proposal. The committee convenes once all proposals have

been evaluated. The committee discusses each proposal and ranks them according to scores and outcomes of discussions. Grants are funded fully, partially, or not at all.

GRAC will not fund food, motel, registration or publication costs. Travel awards are given only to those who will be presenting their research at a conference. The maximum travel grant award is \$100 per proposal; there is no lifetime limit. The maximum research grant award is \$250 per application. Although requests for funding of a project previously funded that academic year are allowed, they will receive funding only if adequate proof of progress in the study and of attempts to obtain additional sources of funding are demonstrated. The lifetime limit in research grants is \$1,000 for Masters students and \$1,500 for Ph.D. students. Applications are limited to two per academic year with the understanding that second applications will be considered only if sufficient funds are available.

Students may apply for both a travel and research grant within the same semester. An application must be made to SRAC that same semester for that particular activity, or proof of SRAC ineligibility must be given. Complete applications should contain a cover page (research or travel grant application cover page), SRAC cover page, a two-page proposal outlining the activity to be funded, and a one-page outline of the budget, detailing items to be funded by GRAC. GRAC applications are available in the Department Main Office (Forms drawer). Applications should be presented to the GRAC co-chairs by 5:00 p.m. one week prior to the SRAC Fall and Spring deadlines. There is no Summer GRAC.

#### **THE ALVIN R. AND CAROLINE G. GROVE SCHOLARSHIPS**

Three types of scholarships are available. 1) Doctoral scholarships provide doctoral students with release time from a Teaching or Research Assistantship so they can concentrate on scholarly pursuits, such as research or writing. 2) Summer scholarships provide graduate students with financial support to pursue their research. 3) Research scholarships provide graduate students with resources to initiate or continue research projects, and/or to attend conferences to present papers or poster on their research.

Funding periods for the Alvin R. and Caroline G. Grove Scholarships are twice a year, during the Fall and Spring semesters. Applications will be reviewed by a Departmental Scholarship Committee. Applications can be obtained from the department's Graduate Program Coordinator (UNM Biology Department, MSC03 2020, 1 University of New Mexico, Albuquerque, NM 87131-0001).

#### **UNIVERSITY**

#### **STUDENT RESEARCH ALLOCATIONS COMMITTEE (SRAC)**

The SRAC is a five-member committee composed of students from different departments who are members of the Graduate and Professional Student Association (GPSA). The SRAC offers financial assistance for research activities (laboratory, field, museum, library) and travel to conference (whether presenting or not). Assistance is limited to \$500 for a research activity (includes travel to a research site); \$300 for travel to a

conference if presenting a paper; \$150 for travel to a conference if not presenting a paper; however, more than one proposal may be submitted each semester if multiple activities will fall within that semester (research and conference). The stipulation is that an annual maximum of \$500 will be awarded to a single student. SRAC moneys are allocated according to a funding formula of 40:45:15 (fall:spring:summer). In previous years, the GPSA has budgeted \$20,000 to SRAC. This is a highly competitive grant, with only about 20 students being funded per semester in the fall or spring. Each applicant is required to submit a completed SRAC form, a two-page summary of the proposed activity in layperson's language, a total budget, and a substantive letter of support from the student's major advisor or other faculty member. Each proposal is read and scored by three students from other departments. The scoring is based on four rating categories: technical merit, clarity, apparent need, and proposed benefits. Their scores are tallied. Applications are ranked by total score. Grants are funded at 100%, 80%, 60% or not at all.

The following requests **will not be funded**:

1. Salaries of the researcher or co-workers;
2. Duplication and binding fees for thesis or dissertations;
3. Book purchases;
4. Room and board fees for conference/workshop requests (presenting or not presenting);
5. Permanent equipment, e.g., materials not depleted at the end of the research.

All moneys not claimed after 90 days of the allocation date will revert to the SRAC account. These awards are NOT reimbursements. They will be taxed. Application deadlines are the fifth Friday of each Fall and Spring semester and the 1<sup>st</sup> Friday in June for the Summer semester. All applications are to be presented at the BGSA office, Room 200, Student Union Building, UNM, by noon of the due date. For more information, call the GPSA office (505/277-3808).

### **SPECIALIZED TRAVEL GRANTS (STG)**

The STG Committee is a five-member committee composed of students from different departments who are members of the Graduate and Professional Student Association (GPSA). These grants are designed to fund travel expenses not funded by SRAC, such as, but not limited to, clinics, workshops, seminars, interviews, auditions, presentations. Assistance is limited to \$200 per academic year. Each applicant is required to submit a completed STG form, a one-page summary of the planned activity, and a one-page budget. STG will fund car travel at \$0.25/mile for fuel. The activity must fall within the semester it is requested. STG will not fund admission tickets for any event, motel expenses, meals, or any additional expenditures incurred while traveling to an event or function.

These awards are not reimbursements. They will be taxed. Application deadlines are the fifth Friday of each Fall and Spring semester and the 1<sup>st</sup> Friday in June for the Summer semester. All applications are to be presented at the BGSA office, Room 200, Student Union Building, UNM, by noon of the due date. For more information, call the GPSA office (505/277-3808).

## **VICE PRESIDENT'S GRADUATE RESEARCH FUND (VPGRF)**

The VPGRF is administered by the SRAC Committee and the GSA Office. In previous years the Vice President for Research has appropriated \$8,000 to augment graduate student research and travel requests. After applications are rank-ordered and considered once for specific SRAC awards, each of the top-rated proposals (upper 10-20%) will be considered again for additional dollars from the VPGRF (these awards have ranged \$50-\$300). During Fall, Spring and Summer semesters, \$3,200, \$3,200 and \$1,600, respectively, will be allocated. Although the primary purpose of the VPGRF is to augment SRAC requests, SRAC members may also consider:

- 1) room and board expenses up to \$25 per day for individuals presenting or attending conferences which last more than three days, and for persons doing out-of-state research for stays of 3-7 days; and
- 2) unusual photocopying expenses exclusive of thesis/dissertation binding fees (i.e., manuscript preparation, interlibrary loan requests, computer searches).

Any VPGRF dollars allocated to SRAC recipients *will not count* toward the \$150 application limit or the \$250 annual limit.

## **NATIONAL**

Information on other research funds (e.g., NSF, NIH, Sigma Xi) is available in the office of Research Administration or on the MIDAS Database (Go to OGS web site [<http://www.unm.edu/~ogshmpg>], click on Financial Aid, click on General Information, click on MIDAS).

## **DEPARTMENTAL SEMINARS**

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### **VISITING SPEAKERS**

The Biology Department sponsors a seminar series of visiting speakers. These seminars provide an important opportunity to obtain first-hand knowledge of work that is going on in your discipline at other institutions and to meet some of the leading scientists in these disciplines.

The seminars also offer you the opportunity to learn about diverse areas of biology in a pleasant and effortless way. They are usually excellent and can be a good way to socialize with your peers. *All graduate students are expected to attend all departmental seminars.*

### **INFORMAL SEMINARS**

Informal seminar series are offered in ecology/evolution and in cell/molecular biology. They are designed primarily for graduate students. You should participate actively in these seminars, either by attending or presenting your work. *If you are presenting your work, you*

*should sign up for one-credit ST/Ecology Seminar (Biol. 502) or ST/Molecular Seminar (Biol. 502) during that semester.* These seminars provide an excellent forum to discuss new ideas and obtain feedback on research in progress, or even on research that is still in the planning stage. Each student is expected to present at least one informal seminar (M.S.) or three seminars (Ph.D.) during his/her graduate career.

### **NEW GRADUATE STUDENT SEMINAR (BIOL. 500)**

All new graduate students in the Biology Department *are required* to register for and attend this seminar during their first Fall Semester in the program. This seminar provides an opportunity for you to find out how the Department is organized, what facilities are available for your use on campus, and what various members of the Biology Faculty are interested in and doing. It's a good way to get an overview of the Department and its programs and to have your questions answered as you're just getting started.

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## **FACILITIES**

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### **OFFICE AND LABORATORY SPACE**

Every graduate student with a Teaching Assistantship receives office space. This space is for your own work and a place to help your own students. Office space is assigned by our departmental Administrative Coordinator in consultation with the appropriate Associate Chairperson and/or the Chairperson of the department's Space Committee. Assignment is usually a matter of availability at the moment. Should you be dissatisfied with the assigned space, the option is open for trading with another graduate student. Assignments are reviewed periodically and requests for changes should be made to the Administrative Coordinator. It is possible, but not certain, that office space may be available for students who have been awarded Research Assistantships. It is more likely that they will find space in the lab of their P.I.

In all cases, laboratory space is under the control of the Department Chair, the Department's Space Committee and the Biology Faculty. If your research requires laboratory space, you should consult with your Major Advisor about your space needs.

### **EQUIPMENT USE AND AVAILABILITY**

This is a gray area with few defined rules. Tradition and personal contact are major determinants of who gets what. Obviously, equipment belonging to your Major Advisor and amenable committee members is most readily accessible.

Material purchased by a faculty member's grant is under control of that individual. Negotiations should be undertaken with that person for use of equipment or facilities. It is a general departmental policy to maximize the use of equipment, and financial reality does not permit duplication of many items. The Building Coordinator and the Storekeeper are best informed as to what equipment is in the department and who controls it. They also keep track of surplus material at Sandia Labs, which can often be obtained for minimal cost.

## MAIN OFFICE SUPPORT AND SUPPLIES

It is important to establish a good working relationship with the Main Office staff. Bear in mind that they are often overworked and have very busy schedules that may cause some delays in their responses to your requests.

General office supplies are kept in the Storeroom and are monitored on computer by the Storekeeper.

## BGSA COMPUTER POD

There is a microcomputer pod (lab) in Room 7 of our department. This facility was initiated by members of the BGSA for use by its biology graduate student members. A part-time T.A. maintains the pod Fall and Spring semesters and is available to provide assistance in case of difficulties encountered with either the hardware or software. Please forward all applications to the pod T.A. who will also brief you on the rules and concerns governing the pod's use.

At present, the pod has five computers (Micron Pentium, Zeos Pentium 90, Dell G-x240, and two Macintosh OSX computers) as well as a printer (HP LaserJet 4M+) and a scanner (Epson Color). Printer supplies and paper are provided, but you have to provide your own diskettes. Macintosh and PC software with manuals are also available. Manuals of statistical software packages (e.g., SAS, SYSTAT) on Computer and Information Resources and Technology (CIRT) computers are also available. *Please observe **all** copyright laws and do **not** copy software from or onto the pod computers.* The pod TA is not responsible for personal files copied onto the hard disk—these will be deleted at will when the disk space becomes critical. Please check the pod rules for a complete listing of available hardware and software.

Every user is required to observe a set of rules, which is displayed in the pod. These rules are to ensure that each and every user has equal usage of the hardware and software. All users are asked to be considerate when using the pod, i.e., be tidy, do not remove software diskettes or manuals from the pod, use the laser printer only for final copies, check for virus infections, etc. Please remember that the *usage of the pod facilities is a privilege and not a right*. Please report all hardware failures or software difficulties to the pod T.A.

The Macintosh and PCs are also connected to the Campus Data Communication Network (CDCN); all network connections are on the UNIX platform. Through these computers, it is possible to access e-mail and the World Wide Web. Instructions for obtaining computing accounts on these computers or more information can be obtained from CIRT, which is responsible for the computer facilities in general at UNM. CIRT also provides several computer pods on campus for student use; laser printers are available and printing is free. Check with CIRT for more information (via a series of "How to . . ." leaflets) and for the hours of specific pods. CIRT's Help Desk is located at the CIRT Building, Room 144; it is open Monday—Friday, 8 a.m.—5 p.m. and its telephone number is 277-4848.

## **MAIL**

All graduate students are assigned a mailbox in the main office. You will share a mailbox with another student or with your major professor. At present, the Department pays postage on reprint requests (cards available in the supply area) whose destination is within the United States. Postage on requests to foreign countries must be paid for by the student.

## **TELEPHONES**

The University of New Mexico is on a centrex system. Within the UNM campus, dial "7" or "2," as appropriate (UNM phones begin with either "277" or "272"), followed by the last four digits of the number. Outside lines are obtained by dialing "9" for local calls.

The Department will pay for some long-distance calls and faxes, if the Department budget so permits. Check with office personnel to find out current long-distance procedures. For calls and faxes within the U.S., it will involve dialing an "8," an account number, "1," area code, phone number. All calls and faxes must be recorded on a Telephone Log form (available from the office staff), which must be turned in to the departmental accountants for billing purposes.

## **DARKROOM/ELECTRON MICROSCOPY FACILITIES**

Darkroom facilities are located on the second floor of Casteretter Hall, west and east sides. The Electron Microscopy facilities are located in the basement, east side.

## **GREENHOUSES**

Two greenhouses are under the jurisdiction of the Biology Department. The older one by the main entrance to the building is used for both public display and research. A new greenhouse, located on the southeast corner of the building, is devoted to research. Use of either is coordinated by the Department's Greenhouse Committee. Self-guided tours of the older greenhouse may be scheduled through Maria Ruby (277-4392).

## **MUSEUMS**

The Museum of Southwestern Biology (MSB) and United States Geological Survey (USGS) have recently relocated to a renovated facility just northeast of the Department of Biology. The renovation is incomplete, but all divisions excepting the Division of Genomic Resources has relocated. It has eight major divisions at present. They are as follows (with the name of the respective curator who should be consulted for details: Director (Dr. Donald Duszynski), Amphibians and Reptiles (Dr. Howard Snell), Arthropods (Dr. Kelly Miller), Genomic Resources (Dr. Terry Yates), Birds (Dr. Christopher Witt), Fishes (Dr. Tom Turner), Mammals (Dr. Joseph Cook), UNM Herbarium (Dr. Tim Lowrey) and USGS - Biological Survey Collection (Dr. Michael Bogan). Tours of these divisions will resume when relocation

to the new museum building is complete. In addition, the department has a Microcultures facility (Dr. Larry Barton).

## **ANIMAL CARE**

There is a lab animal facility located in the basement which is under the direction of the Lab Animal Technician and the Main Campus veterinarian. Anyone keeping or proposing to keep animals in the building should see these persons. The technician can be very helpful in locating quarters for whatever animal you will be working with. **NOTE:** *Use of vertebrate animals in departmental research projects requires the submission of, and approval of, a formal animal-use protocol by the Main Campus Animal Care and Use Committee (MCACUC); see the campus veterinarian for details. In addition, **all** people involved in the use and care of animals **must** receive training in the form of a MCACUC-sponsored training session; this is necessary in order to remain in compliance with federal regulations.*

## **LIBRARY**

The library should be a key resource for every graduate student. To realize the benefits (and problems) associated with using the UNM Library, you should become familiar with its organization and facilities. Not all the collections are housed in the same building. The Science, Engineering and Map collections, which will be of special interest to you, are located in the Centennial Library near Castetter Hall. Should you wish to arrange a tour of the facility, please contact the Reference staff at the library and they can arrange one for you.

## **TEACHING ASSISTANT RESOURCE CENTER (TARC)**

TARC was established to provide resources and training for UNM teaching assistants. The center sponsors workshops and provides consulting services. All T.A.s are encouraged to contact TARC, which is located in 218 Marron Hall (277-2759 or 277-3019).

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## **STUDENT GOVERNMENT**

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Graduate students may need additional information about the university community, including the university administration, the Graduate Professional Student Association at UNM and the neighborhoods around the university. As many graduate students are temporary residents of the Albuquerque area and, frequently, new residents in New Mexico, they may also have specific questions regarding renters' rights and responsibilities in New Mexico and Albuquerque. The university-wide Graduate Professional Student Association has prepared a handbook. Additionally, the New Mexico Public Interest Research Group has prepared a *Renter's Guide*.

## **BIOLOGY GRADUATE STUDENT ASSOCIATION (BGSA)**

The Biology Graduate Student Association provides a variety of opportunities for graduate students to contribute to the planning, management and development of the Department of Biology. Whether you are planning academic, governmental or commercial/industrial careers, experience in the internal affairs and government of our department will contribute to your graduate education. Every graduate student is strongly encouraged to participate in, and contribute to the efforts of, the BGSA. In addition, graduate students may sit on a number of university-wide committees. The following lists of Biology committees and University committees indicate the scope of opportunity available for graduate student involvement.

### **BIOLOGY DEPARTMENT COMMITTEES**

#### **University Committees**

The following list contains the university-wide committees upon which graduate students may sit or to which they may contribute in other ways. Applications to serve on these committees are available at the GSA office (second floor, Student Union Building).

Academic Calendar	Housing Committee
Administrative Committees	International Affairs Committee
Admissions & Registration Committee	Intramural & Recreation Board
Affirmative Action Policy	Library Committee
Arts & Sciences Graduate Committee	National Science Foundation Committee
Athletic Council	New Mexico Union Board
Building Committee	Popejoy Hall Board
Campus Planning	Radio Advisory
Campus Safety	Radiological Safety Committee
Committee Computer Use Committee	Research Policy Committee
Community Education	Restricted Gifts Committee
Cultural Programs Committee	Scholarships, Prizes & Loans Committee
Curricula Committee	Sexual Harassment
Economic Impact Task Force	Speakers Committee
Faculty Ethics	Student Publications Board
Faculty Senate	Student Radio Board
Gifts to Libraries Committee	Student Standards & Grievance Committee
Graduate Programs & Standards Committee	United Fund Committee
Greater UNM Allocations Committee	University College Board of Deans
Health Center	University Committee on Human Subjects
Honorary Degrees	

## MASTER'S CHECKLIST

*It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures. This checklist should serve as an aid to that end. All forms are available from the Department's Graduate Coordinator.*

FORM	TIMETABLE	SIGNATURES REQUIRED	WHERE TO SUBMIT	DATE
* Committee on Studies	Prior to filing Program of Studies	Committee members and Major Advisor	Graduate Coordinator	
Program of Studies	After completion of 12 hours of graduate work (tool skill <i>must</i> be completed); file no later than the semester <i>before</i> you plan to graduate.	Major Advisor; Department Chairperson	Graduate Coordinator	
** Research Proposal Approval	End of second semester	Committee on Studies; Chairperson of Graduate Policy Committee; Department Chairperson	Graduate Coordinator	
Graduate Curriculum Form	End of the 3 <sup>rd</sup> semester	Major Advisor; Chairperson of Graduate Policy Committee	Graduate Coordinator	
Tool Skill	Prior to and upon completion of skill	Committee on Studies; Chairperson of Graduate Policy Committee; Department Chairperson	Graduate Coordinator	
Notification of Intention to Graduate	Spring - 1 <sup>st</sup> wk in Dec Summer – last wk in Apr Fall – mid July	Department Signature	Graduate Coordinator	
Announcement of Exam	At least two weeks prior to exam date	Department Chairperson	Graduate Coordinator	
***Report on Examination	After exam	Each member of Committee on Studies	Graduate Coordinator	
**/** Report on Thesis ("gray sheets")	After exam	One copy to each member of Committee on Studies (to accompany thesis)	Chairperson; Committee on Studies	
**/** Certification of Final Form of Thesis	After final approval of thesis	Major Advisor	Office of Graduate Students (submit with required copies of thesis)	

\* The Committee on Studies *must* meet with the student *at least once* during *each academic year*. Graduate students should obtain a "Committee on Studies Report" for each meeting from the Graduate Coordinator and return after completion.

\*\* These forms are not required for M.S. Plan II.

\*\*\* The results of the Master's Exam must be submitted by: Fall, Nov. 15; Spring, April 15; Summer, July 15.

\*\*\*\* Dates for submission of manuscript: Fall: Nov. 15; Spring: April 15; Summer: July 15.

## PH.D. CHECKLIST

*It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures. This checklist should serve as an aid to that end. All forms are available from the Department's Graduate Coordinator.*

FORM	TIMETABLE	SIGNATURES REQUIRED	WHERE TO SUBMIT	DATE
* Committee on Studies	Prior to filing Application for Candidacy	Committee members and Major Advisor	Graduate Coordinator	
Announcement of Comprehensive Exam	At least two weeks prior to exam date	Department Chairperson	Graduate Coordinator	
Application for Candidacy	At the point at which comprehensive exam has been passed & the language requirement & tool skill have been fulfilled	Committee on Studies; Department Chairperson	Graduate Coordinator	
Tool Skills (incl. Language)	Prior to & upon completion of each skill; submit with Application for Candidacy	Committee on Studies; Chairperson of Graduate Policy Committee; Department Chairperson	Graduate Coordinator	
Ph.D. Teaching Requirement	No later than the semester preceding Ph.D. final exam	Committee on Studies; Chairperson of Graduate Policy Committee	Graduate Coordinator	
Graduate Curriculum Form	End of the 3 <sup>rd</sup> semester	Major Advisor; Chairperson of Graduate Policy Committee	Graduate Coordinator	
Research Proposal Approval	End of 3 <sup>rd</sup> semester beyond Master's; end of 5 <sup>th</sup> semester beyond Bachelor's	Committee on Studies; Chairperson of Graduate Policy Committee; Department Chairperson	Graduate Coordinator	
Appointment of Dissertation Committee	No later than the first semester of Biol. 699 enrollment	Dissertation Director; Department Chairperson	Graduate Coordinator	
Notification of Intention to Graduate	Spring - 1 <sup>st</sup> wk in Dec Summer – last wk in Apr Fall – mid July	Department Signature	Graduate Coordinator	
Announcement of Final Exam	At least two weeks prior to exam date; dissertation must be submitted within 90 days of the defense	Department Chairperson	Graduate Coordinator	
**Report on Examination	After defense	Dissertation Committee Members	Graduated Coordinator	
**Report on Dissertation ("gray sheets")	After defense	One copy to each member of Dissertation Committee	Graduate Coordinator	
***Certification of Final Form of Dissertation	After final approval of dissertation	Dissertation Director	Graduate Coordinator	

\* The Committee on Studies *must* meet with the student *at least once* during *each academic year*. Graduate students should obtain a "Committee on Studies Report" for each meeting from the Graduate Coordinator and return after completion.

\*\* The results for the Doctoral examination must be submitted by: Fall, Nov. 15; Spring, April 15; Summer, July 15.

\*\*\* Dates for submission of manuscript: Fall: Nov. 15; Spring: April 15; Summer: July 15.