

Jhe University of New Mexico Department of Biology Graduate Student Handbook Fall 2012

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INTRODUCTION

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, http://catalog.unm.edu/catalogs/2012-2013/, which should also be consulted for additional details.

IT IS <u>YOUR RESPONSIBILITY</u> TO READ CAREFULLY THIS HANDBOOK AT THE BEGIN-NING OF YOUR GRADUATE PROGRAM. DON'T PUT YOURSELF AT A DISADVANTAGE BY NOT TAKING THE TIME TO UNDERSTAND FULLY THE RULES AND REGULATIONS OF THE BIOLOGY DEPARTMENT DESCRIBED BELOW. STUDENTS ALSO ARE EXPECTED TO UNDERSTAND THE POLICIES AND PROCEDURES OF THE OFFICE OF GRADUATE STUDIES AND UNM.

This Handbook is about the nuts and bolts of your 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.

It is important to ask the Graduate Program Coordinator any questions you may have as early as possible to avoid extra challenges.

DEGREE PROGRAMS

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.

Master Degree

Two alternatives exist for obtaining a Master's degree in Biology. The M.S. Plan I program provides advanced training in a sub-discipline 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.

Doctoral Degree

The emphasis of the Ph.D. degree is upon advanced training in the subject matter and conceptual bases of a sub-discipline 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 Level

It is possible to change from the Master's program to the Ph.D. program or the Ph.D. program to Master's program if your educational goals have changed. You must discuss this with your Committee on Studies. It is important that you make this request as early as possible in your academic training, normally during the third semester.

Master's to Ph.D.

Master's students deciding to change to the Ph.D. program must submit a request to the Graduate Selection Committee during the normal admission period. Please submit a memo to the Graduate Selection Committee by <u>December 1st</u> requesting the change, along with a copy of a current transcript (unofficial is acceptable), a letter of support from your advisor and the Office of Graduate Studies (OGS) Change of Degree Level form. The student will be evaluated, along with other applicants, by the departmental Graduate Student Selection Committee during their normal screening period in early spring. Once the request has been approved by the Biology Department, it will be forwarded to the Office of Graduate Studies. The student will be notified of the final decision. All approved students must complete the Ph.D. degree requirements. Students making this change must be in good academic standing and progressing in a timely manner.

Ph.D. to Master's

Ph.D. students changing to the Master's program must submit a request to the Biology Graduate Program Office. This request must include a memo to the Graduate Policy Committee, a supporting statement from the Advisor of your committee and a completed OGS Change of Degree Level form. This change can be effective any semester. **The deadline for the Fall semester is <u>July 1st</u>, the Spring deadline is <u>October 1st</u> and the summer deadline is <u>March 1st</u> to ensure time to submit to OGS by their deadline. We will notify the student, once approved by OGS. All students approved must follow the Master's curriculum and procedures.**

Master's Enroute [En route per OGS website] to Ph.D.

The Office of Graduate Studies allows students admitted directly to a Ph.D. without a master's degree to earn a master's degree enroute to the Ph.D., providing it is in the same major. The Biology Graduate Program allows students to do so before they have passed their doctoral comprehensive exam. The student must write a memo to the Graduate Program Coordinator or Graduate Policy Committee requesting a Master's en route to their Ph.D. The student's advisor also must write a letter of support of this request as well. With advanced approval from the department and OGS, the doctoral comprehensive examination may serve as the master's examination provided that the committee composition fulfills the necessary Master committee requirements. *Students choosing this route must complete a Program of Studies (POS) and an Application for Candidacy (AC), using the Exam as the qualifying exam. The Master's degree can be either Plan I or II.*

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.

THE MAJOR ADVISOR AND COMMITTEE ON STUDIES

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 important, 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 Program Coordinator will receive a copy of the letter approved by 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 (COS) 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 the University. The COS consists of three members: a major advisor, a Biology faculty and a UNM faculty member. All members must be approved for instruction by OGS. 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 administers the Ph.D. comprehensive examination and serves as the core of the Dissertation Committee (see below).

You must confer with your Major Advisor *within the first semester* of your graduate studies about the establishment of your Committee on Studies. The composition of the Committee must be approved by the Major Advisor and the Office of Graduate Studies. 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 appointment of your Committee on Studies must be reported on a "Committee on Studies" form, obtained from the Graduate Program Coordinator and returned to the Coordinator after the appropriate signatures have been obtained. For Ph.D. candidates, the Committee must be appointed before 24 graduate credit hours are completed but no later than the fourth semester, and for Master's candidates, before 12 graduate credit hours are completed but no later than the second semester.

The Committee on Studies of each graduate student who is in residence in the Biology Department *must meet with the student 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 Graduate Program Coordinator's 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. The Graduate Coordinator will contact both the student and his/her advisor if a Committee on Studies Report has not been turned in by March of each academic year.

Students should take the initiative in prompting their Major Advisor to call this meeting, using it to present your most recent ideas to your Committee, discuss and plan your academic progress, or to obtain their guidance on the problems that seem most pressing to you.

All students must meet with their Major Advisor by Fall break to ensure they will be eligible for funding for the Spring. Students must submit a Committee on Studies Report. Anyone not complying with this policy may lose their funding for the semester.

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. Refer to The UNM Student Handbook at http://pathfinder.unm.edu.

REGISTRATION

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. Students who are in good academic standing and do not have any financial holds on their account will be able to register online using UNM's Lobo Web system. To find the day registration begins, please go to the Office of the Registrar's website (<u>http://registrar.unm.edu/Registration/index.html</u>). You should make every effort to register on time. A late-registration fee is assessed if you fail to register by the published deadlines. Generally, 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 assistantship appointment, you must be registered for a minimum of six (6) credit hours by the first day of the semester (excluding summers). Other forms of financial aid, such as loans or scholarships, may have different enrollment requirements; please consult with the UNM Financial Aid Office for details. The Biology Department recommends that students 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. Students holding an assistantship are required to supply the Biology Graduate office with a copy of their schedule of classes.

MASTER DEGREE

REQUIREMENTS FOR MASTER'S DEGREE

It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures, to the Department's Graduate Program Coordinator. <u>Do not submit</u> forms directly to the Office of Graduate Studies (OGS).

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

- 1) Attend the New Graduate Student Seminar (Biol. 500). Attendance is mandatory;
- 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 graduate core curriculum requirement;
- 4) Successfully present at a Brown Bag seminar in the second or third semester;
- 5) Successfully complete the non-biological skill requirement (see p. 8);
- 6) Complete a Program of Studies to be approved by the Office of Graduate Studies no later than the semester *prior* to graduation (see p. 10);
- Maintain continuous enrollment in at least one (1) credit hour of Thesis hours once these hours are started through graduation, (more information can be found on the OGS website under General Academic Regulations);
- 8) Submit a research proposal (Plan I only; see p. 10);
- 9) Pass the Master's Examination and/or Master's Exam for Thesis (see p. 12); and
- 10) Present and successfully defend a thesis acceptable to the Department and the Dean of Graduate Studies (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 also must be observed:

- 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 to course work being applied towards degree requirements may be made by memo with approval from your advisor; see the Graduate Program Coordinator for details. Significant changes, including changes between Plans I and II, will require a new Program of Studies form and new approvals;
- 3) All course work used to fulfill the degree requirements, including any non-degree or transfer work, must be completed within *a seven-year period* before the semester of graduation;
- 4) If you opt for a formal minor as part of your program, (a) you should consult with a member of the minor department in the planning of that program; (b) 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 (c) you must submit a Request for Transcripted Minor form to the Office of Graduate Studies for final approval. This form is

available from the Graduate Program Coordinator's office. For further details, see the 2012–13 OGS forms page in graduation section; and

5) For rules on transfer credits, see the 2012-13 UNM Catalog.

Course Work Requirements

Plan I

- 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.
- A minimum of six (6) hours of 500-level course work.
- A maximum of six (6) hours of Problems (Biol. 551) and five (5) hours of Field Biology (Biol. 651).
- Only 12 hours (exclusive of thesis hours) may be taken with a single professor.
- At least 50% of required course work must be completed after admission to the graduate program, unless further limited by the graduate program.
- Core Biology Course Work includes: 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, however all three courses may be at the 500 level.
- A minimum of six (6) Thesis hours (Biol. 599). Students must be continually enrolled in at least one credit hour of Thesis once they begin Thesis hours.
- Completion of a master's thesis.
- A maximum of nine (9) hours of course work done in non-degree at UNM may be included in the Master's degree.
- 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

- 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.
- A minimum of 12 hours of 500-level courses.
- A maximum of 12 hours of Problems (Biol. 551) and a maximum of eight (8) hours of Field Biology (Biol. 651).
- Only 12 hours may be taken with a single professor.
- 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).
- Core Biology Course work to include: Three courses selected from the Graduate Curriculum.
- A maximum of nine (9) hours of course work done in non-degree at UNM may be included in the Master's degree.
- 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.

Core Curriculum Requirements

• Master's students are expected to complete the graduate curriculum course requirement within their first year in the program: three UNM Biology Department courses at the 400 or 500 level (excluding 402/502, 500, 551, 599 or 651). Two courses have to be at the 500 level, and only one may be at the 400 level.

This requirement will be tracked by a Graduate Curriculum Form signed by the student's Committee on Studies members listing the courses to be taken, and signed by the Major Advisor when the courses are completed. The completed and approved form is included in the student's file in the Graduate Program Coordinator's Office.

Brown Bag Presentation

Brown Bag noon presentations are open to the public and are an opportunity support one another. One of the requirements to complete your Plan I degree is to present at one of the Department's Brown Bag seminars. Students should do this by the end of their third semester, in preparation to their final oral exam. Students may discuss their topic to present with their Committee on Studies. All students must register for Biology 502 the semester they plan on presenting. Students must contact the 502 instructor or student coordinator to schedule a presentation time. Students must complete and submit the Brown Bag form. Please note: Plan II students are not required to present at the Brown Bag seminar.

Non-biological Skills Requirement (Tool Skills)

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 Office of Graduate Studies 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 be applied toward the total number of semester hours needed for a graduate degree or contained in the program of study. You also may 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 for review by 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);
- 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	Probability (3)
	Stat 445/545	Analysis of Variance and Experimental Design (3)
	Stat 547	Multivariate Analysis and Advanced Linear Models (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)
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)

3) Chemistry / Earth & Planetary Sciences

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Biom 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 405L/505L	Stable Isotope 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 nonbiological skill areas and make arrangements to satisfy the requirements *early* in your program of study as the courses may be offered 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.

Once your non-biological skills requirement has been completed, submit a completed Tool Skills form, signed by your major professor, to the Graduate Program Coordinator's office for further processing.

Research Proposal

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. A short proposal adhering to the NSF Doctoral Dissertation Research Grants will suffice. The proposal should be discussed initially with your Major Advisor and Committee on Studies, revised as appropriate, submitted to the Program Graduate Coordinator for submission to the Biology Graduate Policy Committee for final review and approval along with an Approval of Research Proposal form, available from the Graduate Program Coordinator. 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.

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). 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) 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.

Program of Studies

A Program of Studies (POS) for the Master's Degree should be filed with the Graduate Program Coordinator after you have completed 12 hours of graduate work and *no later than the last day of classes of the semester <u>before</u> you expect to complete degree requirements. The POS is a listing of all courses to be counted towards the degree requirements by the Office of Graduate Studies (OGS). It is important to list only the courses you wish to be used in obtaining your degree.*

This form may be obtained from the Office of Graduate Studies, the OGS website (http://ogs.unm.edu); the completed form is to be submitted to the Biology Graduate Program Office. The Program of Studies should be planned in consultation with your Major Advisor and/or Committee on Studies. Please meet with the Graduate Program Coordinator to confirm all requirements are met. The Graduate Program Coordinator will obtain the necessary signature from the Department Chairperson before submitting 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 of your intention to complete all degree requirements by completing the departmental Intent to Graduate form (obtained from the Graduate Program Coordinator's office) and submitting the form to the Biology Department (with your advisor's signature) no later the second Friday in July for Fall semester, second Friday in November for Spring semester, second Friday in April for Summer semester. Degrees are awarded three times during the year; however, Biology Department Commencement exercises are held only in May; everyone who completed their degree requirements during the year is invited to participate.

Thesis Guidelines

Each candidate for the Master's degree under Plan I must submit a thesis that gives evidence of capacity for sound research. 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.

The University of New Mexico is requiring all theses and dissertations to be submitted electronically for Office of Graduate Studies approval and archiving at LoboVault, the UNM Library's online institutional repository. Be sure to carefully follow the thesis format guidelines available on the Office of Graduate Studies website at: <u>http://ogs.unm.edu/degree-completion/thesis-dissertations/guidelines.html</u>. The Biology Department strongly encourages students to attend an OGS Thesis/Dissertation workshop, which is offered throughout the academic year.

If you are following Plan I, you must complete a minimum of six (6) hours of Thesis (599) credit. Once you have begun thesis hours, *you must continue to register for a minimum of one (1) hour of Biol. 599 during each regular semester* (exclusive of summers, unless you plan on graduating during that session) until the thesis is approved by the Dean of Graduate Studies. 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 will not be accepted.

There are two acceptable, alternative formats for the thesis: the traditional and the manuscript-based. The latter is often referred to in the Department as a "hybrid" thesis. Students may opt to use either style. However, approval of which style is used will be obtained from the committee chair and the members of the 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 the forms web page in manuscripts section <u>http://ogs.unm.edu/degree-</u> <u>completion/thesis-dissertations/guidelines.html</u>.

Traditional Thesis

The traditional thesis 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

A manuscript-based thesis is a collection of manuscripts or articles formatted for publication and presented as separate chapters of a single thesis. 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. The inclusion of a particular manuscript in the thesis will be with the approval of the student's advisor and the members of the examination committee;
- 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 to consist of a mixture of published and unpublished material;
- 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 reformatting 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 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 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. Many journals openly state in their policies and guides to authors that published manuscripts may be used for thesis without obtaining additional permission.
- 6) The completed thesis 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 related to a general theme of the thesis is recommended. The student should seek the advice of their faculty mentor and members of their thesis 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; and
 - (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.

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 been approved by OGS. The student must be in good standing and enrolled in at least one credit of Biol. 599.

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 Biology faculty member. *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 Office of Graduate Studies of the date, time and place of the examination by completing an "Announcement of Examination" form.* This form is available from the Department's Graduate Program Coordinator or on the OGS forms website and must be submitted to the Department no later than November 1 (Fall), April 1 (Spring), or July 1 (Summer). Once this form is approved by the Office of Graduate Studies, it will be returned to you, and you must give it to the chairperson of your committee. Results of the examination are reported on the reverse side of the form by your committee and returned to the Graduate Program Coordinator.

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 sixmonth 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.

Final Submission of Thesis

Your thesis, in perfect form and approved by your Committee, shall be submitted electronically for the approval of the Dean of Graduate Studies by **November 15, April 15, or July 15 for Fall, Spring or Summer graduation, respectively**.

Along with your thesis, you must also submit the **Certification of Final Form**, approved by your committee chair, and your committee members' evaluations of your work as reported on the **Report on Thesis** ("gray sheets"). See the Graduate Program Coordinator for help with submitting these forms. In addition, a copy of your thesis shall be given to the Biology Department for its collection. This may be delivered on a Compact Disc or in printed format.

90-Day Rule

A master's student must submit his/her thesis to the Dean of Graduate Studies within ninety (90) days of his/her final examination for the thesis. If the manuscript is not submitted within that time, the student must schedule and complete a second final examination for the thesis. In all cases the results of the thesis defense must be submitted to OGS no later than two weeks after the announced date of the thesis defense.

Courtesy Policy

University regulations require that the student be enrolled and complete a minimum of one (1) hour of graduate credit for Master students and three (3) hours for PhD students in the term they complete degree requirements. Should the student miss the graduation deadline (July 15 for summer graduation, November 15 for fall graduation, April 15 for spring graduation), but complete all degree requirements on or before the last day of that term, the student is not required to register for the next term. See the Graduate Program Coordinator for more details about taking advantage of this "courtesy policy."

SUGGESTED SCHEDULE FOR COMPLETING A M.S. IN BIOLOGY

It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures, to the Department's Graduate Program Coordinator. Do not submit forms directly to the Office of Graduate Studies.

Year 1

- Meet with Major Advisor; set up Committee on Studies. This Committee MUST meet with the student *AT LEAST ONCE A YEAR*. (submit a **Committee on Studies Form** naming your committee members. A **Committee on Studies Report** must be submitted each year [including the first time the committee meets])
- Fulfill the graduate course curriculum requirement. (submit a Graduate Core Curriculum Form).
- Submit Research Proposal; start research. For Plan I students only. (submit **Research Proposal Approval Form** with approved research proposal attached)
- Complete non-biological skill. For Plan I and Plan II students, this requirement may be filled by six (6) or more credits of either a language or statistics/math/biometry, etc. as agreed upon by the Committee on Studies members. The credits you use for the Tool Skill may be transferred from another institution. (submit a **Tool Skills Form**)
- Submit the 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** lists all course work to be counted toward the degree.)
- Register for Biology 502: Brown Bag and contact instructor to schedule a time. Submit **Brown Bag** form once completed.

Year 2

• Write thesis. (Plan I students only.)

- Notify the Department 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). (submit the **Exam Announcement Form**)
- Submit thesis by the published deadline. (Plan I students only: Certification of Final Form, Report on Thesis)
- The department <u>requires</u> all their graduating students to complete a survey. This survey is provided with the Report of Exam form and gray sheets. This paper survey is returned to the Program Coordinators office.
- 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 Graduate Studies 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 two (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 the approved thesis (Plan I students) to the Office of Graduate Studies, using the online submission guidelines, no later than 90 days after successful completion of your defense, and also 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 necessary committee members signatures and submit the forms to the Graduate Program Coordinator for further processing.

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 to the Biology Graduate Coordinator's Office. <u>This checklist should serve as an aid.</u> All forms are available from the Biology website, the BGSA website or the Graduate Coordinator office.

Students must meet with the Committee on Studies (COS) at least once during each academic year. Students are responsible for scheduling these meetings. Students with funding must submit the COS report prior to Fall break to receive Spring semester funding. Graduate students must complete a "Committee on Studies Report" after each meeting and submit to the Graduate Coordinator. Additionally the advisor will have to sign the Assistantship request form.

FORM	WHEN TO SUBMIT	SIGNATURES REQUIRED FROM STUDENT	WHERE TO SUBMIT	DATE SUBMITTED
Committee on Studies As soon as the committee has been created		Committee member and Major Advisor	Graduate Coordinator	
Committee on Studies Report	Each year until Final Exam has been passed	Student and Major Advisor	Graduate Coordinator	

Program of Studies After completion of 12 hours of graduate work (tool skill must be completed); file no later than the semester before planning to graduate.		Major Advisor	Graduate Coordinator	
** Research Proposal Approval (with proposal attached)	End of second semester	Committee on Studies	Graduate Coordinator	
Graduate Curriculum Form	End of the third semester	Major Advisor	Graduate Coordinator	
Tool Skill	Prior to and upon completion of skill	Committee on Studies	Graduate Coordinator	
Brown Bag	Once during tenure in preparation to your defense or oral exam for Plan I students only	Major Advisor	Graduate Coordinator	
Notification of Intention to Graduate	Spring: November15th Summer: April 15th Fall: July 15th	Committee Chair and members	Graduate Coordinator	
Announcement of Exam	At least two weeks prior to exam date; thesis must be submitted within 90 days of the defense or OGS deadline OGS Thesis deadlines: Fall: Nov. 15; Spring: April 1;Summer: July 15	Committee Chair and members	Graduate Coordinator	
Report on Examination (see the reserve side of the Announcement of Exam)	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	Graduate Coordinator	
** Certification of Final Form of Thesis	After final approval of thesis (submit with required copies of thesis)	Major Advisor	Office of Graduate Studies	
** Thesis	Once approved by committee This must be uploaded per OGS policy. Students should attend the Thesis/Dissertation Workshop the semester before finishing	none	OGS, Graduate Coordinator; each Committee member	

** Requirements not required for students on Plan II.

OGS' Master Plan I or Plan II Snapshot

Review the Master's Snapshot. All of the forms below can be found on the OGS website: <u>http://ogs.unm.edu</u> at <u>OGS Forms</u>. Students approaching the end of their master's program must complete and submit by the appropriate deadlines the following forms in order to graduate:

Program of Studies (POS) form for the Master's Degree—Please submit to OGS by the following deadlines: March 1 for Summer term, July 1 for Fall term, and October 1 for Spring term. Turning this form in late will delay your graduation. OGS must approve the POS before you can take the master's examination.

Proposed Graduation List form (submitted by the graduate unit)—You must notify your department graduate staff advisor before the last day of the term prior to the term in which you intend to graduate or by the department internal deadline for notification to graduate, whichever comes first.

_____Announcement of Examination form—Please submit this to OGS at least two weeks before your thesis defense or master's examination is scheduled. In all cases, you must submit the results of the thesis defense or exam to OGS no later than two weeks after the announced date of the defense/examination.

The **Report of Examination (Results) form**—This form is due in OGS by the graduation deadline (see deadline dates below). Usually your advisor/committee chair or the department graduate staff handles this paperwork. Check with your advisor/committee chair if you have questions about these forms.

For Master Plan I–Thesis Defense—One **Report on Thesis or Dissertation form** (formerly known as the "Gray Sheet") from each of your committee members is due in OGS by the graduation deadline.

Submitting the Thesis:

The University of New Mexico encourages open access to all theses and dissertations produced for graduate degrees. Therefore, all theses and dissertations are submitted electronically in PDF format to the Office of Graduate Studies. These electronically submitted theses and dissertations (ETDs) are uploaded on a server housed in a UNM repository (LoboVault), where they are accessible for search and download through web search engines such as Google. In most cases, students submitting ETDs benefit from having their work available in the open access repository. In some special cases, however, students may want to delay making their work available for varying lengths of time. For this reason, UNM has implemented an embargo policy that enables students, with approval from their advisers and OGS, to delay public-wide access to their work in the LoboVault repository. While under embargo, the manuscript nonetheless remains available to the University of New Mexico academic community in order to satisfy requirements for the degree. Before submitting your thesis or dissertation, please consult with your committee chair and review the embargo restriction policy at the OGS website \rightarrow OGS Forms \rightarrow Manuscript Block to determine whether or not you should release your work to open access or petition for an appropriate embargo option.

You must register at UNM–LoboVault digital repository (<u>https://repository.unm.edu/</u>). Before you can register online, you must notify the OGS Manuscript Coordinator of your registration, because the OGS Coordinator must identify you as a user of the ETD collection at LoboVault repository to authorize the transaction. **Note:** No Binding Fee is required for Electronic submission to LoboVault repository.

IMPORTANT: All Plan I Master's students must submit their thesis to OGS within (90) ninety days of their final thesis defense or by the specific graduation term degree requirement deadline, whichever comes first. You will find Thesis/Dissertation formatting guidelines at http://ogs.unm.edu/degree-completion/thesis-dissertations/guidelines.html.

Please submit your thesis electronically when all revisions are complete and approved by the committee. You must submit the thesis electronically ONLY at the LoboVault digital repository–UNM (see above). To register at the LoboVault repository: <u>http://repository.unm.edu/</u>. Front Matter Templates (Red Border pages/Examples of Completed Front Matter): <u>http://www.unm.edu/grad/manuscripts/manutemp.html</u>.

You must submit all manuscript forms listed below to the Office of Graduate Studies to the Manuscript Coordinator, either by a student appointment or by an email attachment, which can be found at the OGS Forms page under Manuscript <u>http://ogs.unm.edu/resources/ogs-forms/index.html</u>).

_____ Information Cover Sheet form—This form requires no signatures. Please submit this form to the Office of Graduate Studies.

____Certification of Final form (CFF)—This form requires signatures from you and your thesis committee chair. The CFF is the approval page with original signatures. *The committee chair must* sign this form. Please submit this form to the Office of Graduate Studies *before* you electronically submit your thesis.

_____Printed (hardcopy) Red Border Signature page with original committee chair/all committee member signatures (IMPORTANT)—The Red Border signature page must be scanned to the electronic PDF file as the first page of the Front Matter (roman numeral pagination p. i) per the manuscript guidelines at the OGS website. You should submit the Red Border Signature page(s) to your committee members before or at the time of the thesis defense in order to have ample time to incorporate

these forms into the final electronic file for submitting it to the LoboVault repository. Please submit this form to the Office of Graduate Studies *before* you electronically submit your thesis.

_____Printed (hardcopy) Red Border Title Page—This document must be turned in with the others. Please submit this form to the Office of Graduate Studies *before* you electronically submit your thesis.

____ETD Release form—As the author of the thesis, you (not your thesis advisor or committee chair) must sign this form. Please submit this form to the Office of Graduate Studies *before* you electronically submit your thesis.

ProQuest UMI Master's Microfilm Registration is NOT required (Optional). If you choose to use ProQuest/UMI registration, you must follow the online procedure to complete the UMI Master's Thesis Agreement online, pay electronically by credit/debit card, and lastly, complete the electronic thesis submission procedure at the University of New Mexico UMI ETD Administrator website: www.etdadmin.com. The ProQuest/ UMI electronic thesis submission is **NOT** the same as the LoboVault electronic thesis submission.

DEADLINES: In order to graduate in a particular term, you must complete all your degree requirements, complete your thesis defense or master's examination, make all necessary revisions to your manuscript (if applicable) and have it accepted by OGS by the following dates:

Spring Graduation — April 15 Summer Graduation — July 15 Fall Graduation — November 15

Please note: The deadlines above are posted OGS deadlines. To meet these and all OGS deadlines, the Biology Department requires two weeks of preparation time. Please submit paperwork at least two weeks in advance of the posted dates.

NOTE: If any of the deadlines that appear on this sheet occur on a weekend or a holiday for which UNM is closed, the deadline will be moved to the next business day.

DOCTORAL DEGREE

REQUIREMENTS FOR THE BIOLOGY DOCTORAL DEGREE

It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures, to the Department's Graduate Program Coordinator. <u>Do not submit forms directly to the Office of Graduate Studies.</u>

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

- 1) Attend the New Graduate Student Seminar (Orientation). Attendance is mandatory;
- 2) Successfully complete the course work requirements;
- 3) Successfully complete the graduate core curriculum requirement;
- 4) Successfully complete the non-biological skill requirement;
- 5) Successfully complete the Ph.D. teaching requirement;
- 6) Pass the Ph.D. comprehensive examination;
- 7) Apply for and be admitted to doctoral candidacy;
- 8) Submit a research proposal;
- 9) Present and successfully defend a dissertation acceptable to the Department and the Dean of Graduate Studies (see p. 25) within five (5) years of passing the comprehensive exam.

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

- A minimum of 48 hours of graduate credit course work plus an additional 18 credit hours of Biol. 699: dissertation must be completed. The requirements for the 48 graduate credit course work are shown below.
- 2) Graduate Core Curriculum: Four 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, as discussed and agreed upon by your Major Advisor and Committee on Studies members. Each course must be taken from a different graduate faculty member. Students should consult with their major advisor or Committee on Studies for appropriate courses. These courses must be completed in the first four semesters and reported on the Graduate Core Curriculum form.
- 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.
- 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.
- 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. (Once beginning Dissertation hours, a student must continue until graduation enrolling three [3] hours of Dissertation.)

- 7) The doctoral student must enroll continuously with a minimum of three (3) dissertation hours each semester until the dissertation is defended (excluding Summer unless defending in the Summer).
- 8) Must be enrolled the semester in which you complete degree requirements, including the summer session.
- 9) 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.

Core Curriculum Requirement

Ph.D. students are required to complete the graduate curriculum course requirement by the end of their third semester 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. The completed and approved form is then included in the student's file in the Graduate Program Coordinator's Office.

Brown Bag Presentation

One of the requirements to complete your degree is to present at two of the Department's Brown Bag seminars. This presentation is to help prepare students for their oral exam and for their final defense. Students may choose the best semester to present their findings or to prepare for a conference presentation. It is suggested that students discuss their topic with their Committee on Studies. All students must register for Biol. 502 the semester they will be presenting. Students must contact the instructor to schedule a time to give the presentation. Upon completion, students must complete and submit the Brown Bag form.

Non-biological Skills Requirement (Tool Skills)

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 Office of Graduate Studies 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 (6) semester credits per skill area with a grade of B or better. Courses taken to meet this requirement may be applied toward the total number of semester hours needed for a graduate degree or contained in the program of study. You also may 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 (1) 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 Master'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	Probability (3)
	Stat 445/545	Analysis of Variance and Experimental Design (3)
	Stat 547	Multivariate Analysis and Advanced Linear Models (3)
	Stat 481/581	Introduction to Time Series Analysis (3)
	Stat 440/540	Regression Analysis (3)
2)	Computer Science	
	CS 151	Computer Programming fundamentals for Non-Majors (3)
	CS 341L	Introduction to Computing Systems (3)
	Math 375	Introduction to Numerical Computing (2)
	Geog 484/584	Applied Remote Sensing (3)
3)	Chemistry / Earth & I	Planetary Sciences
	Biom 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 405L/505L	Stable Isotope Geochemistry (3)

4) Biomedical Instrumentation

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

Students 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 nonbiological 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.

Once your non-biological skills requirement has been completed, submit a completed **Tool Skills** form, signed by your major professor, to the Graduate Program Coordinator's office for further processing.

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 should be taken in the fourth or fifth semester of your academic career; and, it must be prior to your Application for Candidacy. At least two weeks prior to the planned examinations, you must notify the Dean of Graduate Studies of the date, time and place of the examinations (by using the **Announcement of Examination** form available in the Biology Department Graduate Office).

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. The student will receive the following: distinction, pass, conditional pass, and fail. The Committee on Studies confers on the level of award, privately, at the time of the exam. Pass and Conditional Pass are the two frequently used evaluations.

- Distinction is awarded when the students' knowledge and exam results are above expectations.
- *Pass* is given when the students' knowledge base and evaluation results meet expectations.
- *Conditional Pass* is given when the student missed minor key points/questions during the exam or the student needs additional knowledge before proceeding with their dissertation. The conditions of the committee must be completed by the student by the end of the following semester. Therefore, if the student takes their exam in the Fall, they must complete the requirements by the end of the Spring semester. The committee chair must write a memo to OGS stating that the student has completed the conditions.
- *Failure* is awarded when the student requires substantial knowledge before continuing with their dissertation. If a student fails the examination, 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.

Ph.D. Teaching Requirement

The Biology Department faculty approved the policy below in Fall 2009. Students may teach in a lecture under the guidance of the instructor or may T.A. for one or more semesters. One semester of teaching experience in the Biology Department is required of all Ph.D. degree candidates.

Teaching in a lecture. Students must teach *a minimum of six (6) lecture hours* delivered in a formal course offered by the Biology Department. The student, in collaboration with the instructor, will select the appropriate block of lectures to satisfy this requirement. In addition to delivering the six (6) 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 the student's 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 a Ph.D. Teaching Requirement 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 are returned to the Graduate Program Coordinator and become part of your permanent file. The teaching requirement must be fulfilled no later than the semester proceeding the semester in which the Final Examination is scheduled.

Teaching Assistantship for a semester. Students who have or will be a T.A. assignment for at least one (1) semester will satisfy the teaching requirement. At the beginning of the teaching assignment, the student will pick up and complete the Teaching requirement form from the Graduate Program Coordinator. Upon completion of the assignment the student will complete a second form obtaining the necessary signature from the TA supervisor.

Research Proposal

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. The proposal should be discussed initially with your Major Advisor and Committee on Studies, revised as appropriate, submitted to the Program Graduate Coordinator for submission to the Biology Graduate Policy Committee for final review and approval along with an Approval of Research Proposal form, available from the Graduate Program Coordinator. A copy of the research proposal will be placed in your departmental file.

Students registered in a Ph.D. degree program must submit this proposal at 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). 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) 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.

For Ph.D. students, 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.

Ph.D. Dissertation Committee

The Ph.D. dissertation is reviewed by a Dissertation Committee, which must include at least four members. Three members must hold tenure-track faculty positions. Of these three, two must hold tenure-track positions at The University of New Mexico. One of these four must be from the Biology Department. One committee member 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. Dissertation committee members usually comprise of the Committee on Studies and UNM faculty outside Biology or from another institution. When the committee does not include someone outside of the University, it is advisable that an individual at another college or university be asked to serve as an outside reader of the dissertation. The outside committee member must be approved by OGS. Please see the Biology Graduate Program Coordinator for further instructions. 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 (6) 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. You must report the names of your Dissertation Committee members on an "Appointment of Dissertation Committee" form. This form must be submitted to the Graduate Program Coordinator no later than the first semester in which you are enrolled in dissertation hours (Biol. 699). After gaining departmental approval, the form will be submitted to the Office of Graduate Studies for final approval. 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 (2) weeks before the final examination.

Advancing to Candidacy

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

The following requirements must be successfully met before an Application for Candidacy form is filed. Those requirements are as follows (in no order):

- 1) Approved Tool Skills form (Language Requirement can be part of the tool skill);
- 2) Required course work (four courses, all 400 level or above, at least two courses must be 500 level or above) submitted on Graduate Core Curriculum form;
- 3) Completion of the Comprehensive Examination; and
- 4) Appointment of Dissertation Committee form submitted and approved. 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 on the Office of Graduate Studies website (<u>http://ogs.unm.edu</u>). The form must be approved by the Committee on Studies and returned to the Graduate Program Coordinator for further processing.

Five-year Limit

OGS policy states that "Doctoral candidates have five (5) calendar years from the semester in which they pass their doctoral comprehensive examination to complete the degree requirements. The final requirement is generally the acceptance of the student's dissertation by the Dean of Graduate Studies." The Biology Dissertation Committee and the Department Chair must first approve the dissertation before it may be forwarded to the Office of Graduate Studies. Generally, candidates who have interrupted their graduate education for professional work in their field will be granted an extension of the time limit, but a petition must be filed (see "Leave of Absence," p. 30). 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 Dean of Graduate Studies.

Note that the period of the department's obligation of financial support to Ph.D. students is the first five (5) years (10 semesters) of their period of graduate study. The department has agreed to extra support for students in their sixth year of the program. (See "Duration of Financial Support," page 34 for more details.)

Ph.D. Dissertation

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, you should enroll in Biol. 551*.

Once you start taking Dissertation hours, you must continue to register for 699 during each regular semester (exclusive of summers, unless you plan to graduate during that semester) until the dissertation is approved by the Dean of Graduate Studies. All students registering in Dissertation (699) must enroll for at least three (3) hours per semester. A student may register for up to 12 hours each regular semester. Consult with your Major Advisor about the number of hours you should enroll. The maximum in the Summer Session is nine (9) hours. The Dean of Graduate Studies will not accept a dissertation from a student who is not enrolled for the current semester.

All doctoral students are required to prepare a dissertation as part of the fulfillment of the degree requirements. There are two acceptable, alternative formats for the dissertation: the traditional and the manuscript-based. The latter is often referred to in the Department as a "hybrid" dissertation. Students may opt to use either style. However, approval of which style is used will be obtained from the committee chair and the members of the 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 the forms web page in the manuscripts section: <u>http://ogs.unm.edu/degree-completion/thesis-dissertations/guidelines.html</u>.

The University of New Mexico requires all theses and dissertations to be submitted electronically for Office of Graduate Studies approval and archiving at LoboVault, the UNM Library's online institutional repository. Be sure to follow carefully the thesis format guidelines available on the Office of Graduate Studies website at: <u>http://ogs.unm.edu/degree-completion/thesis-dissertations/guidelines.html</u>. OGS also offers Thesis/Dissertation workshops throughout the academic year, which you are strongly encouraged to attend.

Traditional Dissertation

The traditional 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 Dissertation

A manuscript-based 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:

- 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 dissertation. The inclusion of a particular manuscript in the dissertation will be with the approval of the student's advisor and the members of the examination committee;
- 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 dissertation to consist of a mixture of published and unpublished material;

- 3) the chapters may be in the format style for the journal for which they are intended. However, the student's advisor and the members of the examination committee have the option to require reformatting 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 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 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 dissertations. Many journals openly state in their policies and guides to authors that published manuscripts may be used for dissertations without obtaining additional permission.
- 6) the completed 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 dissertation is recommended. The student should seek the advice of their faculty mentor and members of their 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.

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 (2) 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 (using the Announcement of Examination form available from the Department's Graduate Program Coordinator's office). Once the Office of Graduate Studies approves the form, it is returned to the Graduate Program Office for you to pick up to give to your committee chair on the day of your defense; results of the examination are reported on the reverse side of the form; once your committee has completed the report side of the form, it is returned to the Biology Graduate 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 on 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 cases 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. The results of the examination will be reported on the back of the Announcement of Examination form and returned to the Graduate Program Coordinator for processing.

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 (1) 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, in addition, the Chairperson of the Dissertation Committee must fill out a "Certification of Final Form," which needs to be turned in to the Biology Graduate Office (which will obtain the needed signatures and deliver it to the Office of Graduate Studies) immediately after the defense. These forms are available at the Biology Department Office or from the OGS website (http://ogs.unm.edu).

Final Submission of Dissertation

Your dissertation, in perfect form and approved by your Committee, shall be submitted electronically for the approval of the Dean of Graduate Studies by November 15, April 15, or July 15 for Fall, Spring or Summer graduation, respectively.

Along with your dissertation, you also must submit the **Certification of Final Form**, approved by your committee chair, and your committee members' evaluations of your work as reported on the **Report on Dissertation Report** ("gray sheets"). The Graduate Program Coordinator provides a copy of these to give to your committee at your defense. The gray sheets are returned to the Office for appropriate signatures and delivery to the Office of Graduate Studies. In addition to the copy of the dissertation to each committee member, a copy of the final dissertation shall be given to the Biology Department for its collection. This may be delivered on a Compact Disc or in a printed format.

OGS offers workshops during the semester to explain and demonstrate how to complete the above task. This workshop is highly recommended as it is helpful when you are ready to submit your final documents and the appropriate paperwork.

90-Day Rule

A Ph.D. student must submit his/her dissertation to the Dean of Graduate Studies within ninety (90) days of his/her final examination for the dissertation or the term graduation deadline, whichever comes first. If the manuscript is not submitted within that time, the student must schedule and complete a second final examination for the thesis. In all cases, the results of the thesis defense must be submitted to OGS no later than two weeks after the announced date of the thesis defense.

Courtesy Policy

University regulations require that the student be enrolled and complete a minimum of three (3) hours for Ph.D. students in the term they complete the degree requirements. Should the student miss the graduation deadline (July 15 for summer graduation, November 15 for fall graduation, April 15 for spring graduation), but complete all degree requirements on or before the last day of that term, the student is not required to register for the next term. Consult with the Graduate Program Coordinator for more details about taking advantage of this "courtesy policy."

SUGGESTED SCHEDULE FOR PH.D. IN BIOLOGY

It is the responsibility of the student to ensure that all forms are completed and submitted on schedule, with the appropriate signatures, to the Department's Graduate Program Coordinator. <u>Do not submit forms directly to the Office of Graduate Studies</u>.

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:

- Successfully completion of the Doctoral Comprehensive Examination. (**Report of Exam Form**) (submit the **Announcement of Exam** form at least two weeks in advance of the exam)
- Fulfill graduate curriculum course requirement. (Graduate Curriculum Form)
- Submit Research Proposal; start research. (Research Proposal Approval Form)
- Complete a **Committee on Studies Report Form**. This form must be signed by both the student and their major professor reporting the activities of the student during the year.
- Fulfill Teaching Requirement. (Teaching Requirement Form)
- Set up Dissertation Committee. (Appointment of Dissertation Committee Form)
- The outside committee member must be approved by the Office of Graduate Studies. Submit **a** C.V. for the outside committee member to the Biology Graduate Program Office if this committee member is not on the OGS approved Committee list found on their forms website (<u>http://ogs.unm.edu</u>)
- Make formal Application for Candidacy with the Department and the Office of Graduate Studies. The **Application for Candidacy Form** must list all course work to be counted toward the degree.

Years 3–5:

- Complete a **Yearly Progress Report Form**. This form must be signed by your major professor reporting the activities of the student during the year.
- Write dissertation.
- Notify the department's Graduate Program Coordinator 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 website (<u>http://ogs.unm.edu</u>) and printed in red.

Important Dates

- Contact the Biology Grad Office to discuss and schedule your exam. Complete the Announcement of Exam form notifying the Office of Graduate Studies of date, time and place of Doctoral Comprehensive Exam and Defense of Dissertation (using Announcement of Final Examination for Doctorate Form) at least two (2) 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 the approved Dissertation to the Office of Graduate Studies following the electronic submission guidelines *no later than 90 days after successful completion of your defense*, or no later than November 15 (Fall), April 15 (Spring), or July 15 (Summer) whichever comes first. Submit one copy of the dissertation to the Biology Department for its collection; this may be submitted on a CD.
- 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 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.

6) The department <u>requires</u> all their graduating students to complete a survey. This survey is provided with the Report of Exam form and gray sheets. This paper survey is returned to the Program Coordinators office.

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, and then return the form to the Graduate Program Coordinator for further processing.

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 to the Biology Graduate Coordinator's Office. <u>This checklist should serve as an aid.</u> All forms are available from the Biology website, the BGSA website or the Graduate Coordinator office.

Students must meet with the Committee on Studies (COS) at least once during each academic year. Students are responsible for scheduling these meetings. Students with funding must submit the COS report prior to Fall break to receive Spring semester funding. Graduate students must complete a "Committee on Studies Report" after each meeting and submit to the Graduate Coordinator. Additionally, the advisor will have to sign the Assistantship request form.

FORM	WHEN TO SUBMIT FORM	SIGNATURES REQUIRED FROM STUDENT	WHERE TO SUBMIT	FORM SUBMITTED
Committee on Studies	As soon as the committee has been created	Committee member and Major Advisor	Graduate Coordinator	
Committee on Studies Report	Each year until the Comprehensive Exam is passed.	Committee members and Major Advisor	Graduate Coordinator	
# Application for Candidacy	After comprehensive exam has been passed & the language & tool skill requirements have been fulfilled	Committee of Studies members	Graduate Coordinator	
Brown Bag	Twice during tenure in preparation to your defense or oral exam	Major Advisor	Graduate Coordinator	
# Tool Skills (including Language)	Prior to & upon completion of each skill; submit with/or before Application for Candidacy is completed	Committee of Studies members	Graduate Coordinator	
Ph.D. Teaching Requirement	No later than the semester preceding Ph.D. final exam	Committee of Studies	Graduate Coordinator	
Graduate Curriculum Form	End of the third semester	Major Advisor	Graduate Coordinator	
Research Proposal Approval (with the Proposal)	End of the third semester beyond Master's; end of the semester beyond Bachelor's	Committee of Studies	Graduate Coordinator	
# Appointment of Dissertation Committee	After passing the comprehensive exam BUT no later than the first semester enrolling in BIOL 699	Dissertation Director	Graduate Coordinator	
Notification of Intent to Graduate	Spring: last week in Nov. Summer: last week in Apr. Fall: second week in July	Dissertation Committee	Graduate Coordinator	
Announcement of Final Exam Semester Deadlines: Fall: Nov. 15 Spring: Apr. 15 Summer: July 15	At least two weeks prior to exam date Dissertation must be submitted within 90 days of the defense or OGS deadline	Dissertation Director and Committee	Graduate Coordinator	

Report on Examination	After defense	All Dissertation Committee members	Graduate 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/Chair	Office of Graduate Studies	
Dissertation	Once approved by committee, this document must be uploaded per OGS policy. <u>Students should attend the</u> <u>Thesis/Dissertation Workshop</u>	None	OGS, Graduate Coordinator, each Committee Members	

To Advance to Candidacy, a student must pass the Comprehensive Exam; receive an approved OGS Application for Candidacy form; satisfy Language/Skills and have an OGS approved Appointment of Dissertation Committee form.

OGS's Ph.D. Snapshot

Please review the Doctoral Snapshot, any forms referred to can be found on the OGS website: <u>www.unm.edu/grad</u> at <u>OGS Forms</u>. All students nearing completion of their doctoral program must complete and submit by the appropriate deadlines all of the following forms in order to graduate:

_____ Application for Candidacy form— Submit this to OGS through the Biology Graduate Program Office after the Ph.D. comprehensives have been completed and passed.

_____Appointment for Dissertation form—This form must be signed by the candidate, the dissertation director/chair, and the chairperson of the graduate unit, and approved by the Dean of Graduate Studies. Please file this form no later than the first semester of your enrollment in 699 "Dissertation."

Proposed Graduation List form (submitted by the graduate unit)—Please notify your department graduate staff advisor before the last day of the term prior to the term in which you intend to graduate or by your department's internal deadline for notification to graduate, whichever comes first.

Announcement of Examination form—Please submit to OGS at least two weeks before your dissertation defense is scheduled. In all cases, you must submit the results of the dissertation defense to OGS no later than two weeks after the announced date of the dissertation defense.

The **Report of Examination (Results) form** and one **Report on Thesis or Dissertation form** (formerly known as the "Gray Sheet") from each of your committee members is due in OGS by the graduation deadline (see deadline dates below). Usually your advisor/committee chair or the department graduate staff handles this paperwork. Check with your advisor/committee chair if you have questions about these forms.

Manuscript Submission:

The University of New Mexico encourages open access to all theses and dissertations produced for graduate degrees. Therefore, all theses and dissertations are submitted electronically in PDF format to the Office of Graduate Studies. These electronically submitted theses and dissertations (ETDs) are uploaded on a server housed in a UNM repository, <u>LoboVault</u>, where they are accessible for search and download through web search engines such as Google. In most cases, students submitting ETDs benefit from having their work available in the open access repository. In some special cases, however, students may want to delay making their work available for varying lengths of time. For this reason, UNM has implemented an embargo policy that enables students, with approval from their advisers and OGS, to delay public-wide access to their work in the LoboVault repository. While under embargo, the manuscript nonetheless remains available to the University of New Mexico academic community in order to satisfy requirements for the degree. Before submitting your thesis or dissertation, please consult with your committee chair and review the embargo restriction policy at the OGS website \rightarrow OGS Forms \rightarrow Manuscript Block to

determine whether or not you should release your work to open access or petition for an appropriate embargo option.

You must register at LoboVault digital repository but must notify OGS' Manuscript Coordinator of the LoboVault registration (<u>https://repository.unm.edu/</u>). The OGS Coordinator must identify you as a user of the ETD collection at LoboVault before you can electronically submit to the repository. **Note:** No Binding Fee is required for Electronic submission to LoboVault.

IMPORTANT: You must submit your dissertation to OGS within (90) ninety days of your final dissertation defense or by the deadline for degree requirement, of the term in which you are graduating, whichever comes first.

Thesis/Dissertation formatting guidelines: <u>http://ogs.unm.edu/degree-completion/thesis-dissertations/guidelines.html</u>

Please submit the dissertation electronically as soon as all revisions are complete and approved by the dissertation committee. The dissertation must be submitted at two different electronic (ETD) sites: (1) LoboVault digital repository–UNM, and (2) ProQuest/UMI Administrator–UNM.

CHECK WITH OGS REGARDING MANUSCRIPT REQUIREMENTS

Attending the OGS Dissertation Workshop is highly recommended to help you finish and upload your document. GRC has helpful workshop and events as well.

DEADLINES: In order to graduate in a particular term, you must complete all your degree requirements, complete your defense, make all necessary revisions to your manuscript, submit all required forms, and have the dissertation accepted by OGS by the following dates:

Spring Graduation — April 15 Summer Graduation — July 15 Fall Graduation — November 15

Please note: The deadlines above are posted OGS deadlines. To meet these and all OGS deadlines, the <u>Biology Department requires two weeks of preparation time</u>. Please submit paperwork at least two weeks in advance of the posted deadlines.

NOTE: If any of the deadlines occur on a weekend or a holiday for which UNM is closed, the deadline will be moved to the next business day.

EVALUATION OF PROGRESS

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. *The coordinator will keep track to ensure compliance; if there is an issue the student and the committee chair will be contacted; if this task is still not completed, the Department Chair and the Chair of the Graduate Policy committee will be contacted and funding may not be granted for a semester and until the committee meets and a form submitted.*

LEAVE OF ABSENCE

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. This request must be handed into the Biology Graduate Program Coordinator for appropriate distribution. The written request, together with a memo of support from the chairperson or designee of the graduate unit, is forwarded to the Dean of Graduate Studies, who will make the final decision. Per UNM policy, a leave of absence is generally limited to a maximum of one calendar year. The time spent in a leave of absence will not count against a student's eligibility for departmental support or against the time limit to complete the degree.

If a formal leave of absence is not requested and/or approved, a student who does not enroll for classes for three consecutive semesters (including summer sessions) will be dropped from current student status at the University of New Mexico. Once the three semesters have passed, *a student who wishes to return must reapply for admission to UNM and to the Biology Department*. If a student is re-admitted in such a situation, the time during which the student was not enrolled *will count* against the time limit for degree completion.

Students should not take a leave of absence to undertake research work related to their degree. For example, it is not permissible to take a leave of absence to work on a research grant related in any way to your degree program. Students who have started enrollment in Biology 599 (Thesis) or Biology 699 (Dissertation) hours *must* maintain continuous enrollment in this course in order to remain in good standing.

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

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 was 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

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. 3),
- 4) Termination will be by personal conference with the student.

FINANCIAL AID

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 encouraged to apply for such status toward the end of their first year at UNM. For details regarding residency application process, please consult with the Registrar's Office <u>http://registrar.unm.edu/residency/index.html</u>

Assistantships and Fellowships

The Biology department offers Teaching, Graduate or Research assistantships and occasionally Project assistantships opportunities. To ensure that students are meeting with their committee annually, the Assistantship Request form will be used to certify compliance. All students <u>must</u> meet with their committee at least once a year prior to Fall break.

Fellowships are awarded from various funding sources. It is important that all Students complete a FAFSA and file with UNM. Many fellowships are based on financial needed; the FAFSA is used to determine eligibility.

All Students with or without financial support will be required to meet with their advisor and/or committee annually to insure the student is progressing satisfactorily. Student compliance will be verified in the Spring Semester by Fall break using the assistantship form. The following general principles and regulations apply to Assistantships and Fellowships of various kinds.

- 1) 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 also may be considered.
- 2) These awards are made only to students currently enrolled, or about to be enrolled, in graduate study. Students completing their degree or in the last semester of their degree may not be eligible for some awards.
- 3) To be eligible for an appointment or re-appointment 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 graduate course work making progress towards their degree.
- 4) For graduate assistants and teaching assistants:
 - (a) 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 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 = 0.50 (20 hours of service/week, on the average), or for an FTE of 0.25 or 0.17; in exceptional cases, other fraction appointments may be made. 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 = 0.50). Unused hours of waived tuition will not be carried over into future semesters. An assistant paying for hours beyond the tuition waiver is eligible for the resident tuition rate, provided his or her FTE is 0.25 or higher.
- Please note: that the department will pay only for Biology related credits that are needed for progress toward the comprehensive exam, thesis, dissertation, or required credit hours;
- (d) the assistant must be enrolled in at least six (6) hours of graduate credit each semester (excluding summers) to be eligible for an Assistantship, and is highly encouraged to take at least 12 hours of graduate credit/semester, with 15 hours being the upper limit;
- (e) University regulations and applicable federal laws limit graduate student employment (combination of all jobs) as follows:
 - Domestic students: no more than 0.75 FTE (30 hours per week) during academic year, no more than 1.0 FTE (40 hours per week) during summer session.
 - International students: no more than 0.50 FTE (20 hours per week) during academic years, no more than 1.0 FTE (40 hours per week) during summer session.

If you have or have had additional or other employment at UNM, you must inform the Graduate Program Coordinator and your total combined FTE <u>must not</u> exceed the limits listed above. When a contract does not comply with this policy, it will be returned by OGS, <u>delaying pay</u>.

- (f) Summer T.A. or G.A. appointments are optional and competitive. Students interested in a summer appointment must complete a request form. Assistants are not required to be enrolled during the summer session in order to hold an assistantship; however, those who do not enroll in at least three (3) credit hours will be subject to FICA withholding;
- (g) assistants are eligible for student health insurance if their assistantship is at the minimum of 0.25 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 three (3) credit hours in order to obtain student health insurance for the summer;
- (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 "Declining a Teaching Assistantship," page 35.
- 5) Research Assistants:
 - (a) assist in research work that is relevant to and ultimately may be 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) may or may not receive a tuition waiver at the discretion of the Principal Investigator, but are eligible for the resident tuition rate, provided his/her FTE is 0.25 or higher; and
 - (d) are usually employed for 20 hours/week. An R.A. who has 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. Furthermore, 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.

Assistantship Selection Process

Each semester, students will receive an Assistantship Request form in their mailbox. It is expected that ALL students will complete this form. This aids the department in determining its commitment for Teaching Assistantships for the semester. Additionally, these forms are used to help make course assignments. While it is our intent to assign the student their desired class or subject area, this is not always possible.

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 doctoral applicants who meet the standards for admission and are accepted into the doctoral program with financial support. The department will continue to offer these students Teaching Assistantships for their first five years, contingent on availability of funds.

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. Students accepted without support 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 Declining a Teaching Assistantship). However, the departmental commitment of teaching assistant support is only for the five years or 10 semesters of graduate study from the date a student begins the program, *regardless of what other means of support that student 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 two 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 "Leave of Absence," p. 30.)

Students whose qualifications are as great 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 UNM Biology Department 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 graduate 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, the graduate program staff will provide a funding request form so students can be considered for such an assistantship. <u>All graduate students must fill out this form</u> <u>and return it to the Graduate Program Coordinator each semester</u>. Student who do not submit this form by the deadline are in jeopardy of losing their support for the semester. Assignments will be determined by the quality of the student's work and the Department's need for teaching expertise. The Associate Chair of the department, in consultation with the Graduate Program Coordinator, is responsible for making these decisions. Although it is desirable to match assignments with students interests, it is sometimes necessary to assign students to a course they did not express interest in teaching.

The department has agreed to support students in their sixth (6th) year (12 semesters). These students will be placed in a bonus pool if they request funding by the deadline and are making satisfactory progress. The department agrees to select students from this pool first if additional teaching assistants are required and funds are available. Additionally, the department will pay for dissertation hours. Once a Biology student has begun their seventh (7th) year of study and meets the normal requirements, the student will be placed in the T.A. pool. Students in the T.A. pool who are offered a teaching position will receive a stipend and health insurance (if the assignment is 0.25 FTE or more). Tuition will not be paid by the department.

Declining a Teaching Assistantship

A serious problem for the department can arise if students who have signed a teaching assistantship contract changes their plans. We may, for example, be left without a qualified instructor for a scheduled laboratory section. *To minimize this potential problem, we request that students notify the Graduate Program Coordinator of any change in plans by no later than June 15 for the following Fall semester or by November 15 for the following Spring semester.* The department cannot 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, the department has the right to, and may decide to, withdraw any commitment of future support. Although we work to fulfill students' teaching wishes, the assignments are based on the needs of the department and on providing a teaching experience for its students.

Please note that when a student declines an assistantship, the award will not be extended. All award periods begin the semester the student starts the program and continue for the applicable guaranteed funding time. An exception may be made to this policy if a student takes an approved leave of absence.

Loans and Other Funding Offered at UNM

The University has a number of loan options for graduate students. For more information, please visit the Office of Graduate Studies website <u>http://ogs.unm.edu/funding/index.html</u>.

Additionally, UNM provides a variety of other funding options including, but not limited to scholarships, fellowships, grants and work-study or student employment. For further information, see Funding Resources at <u>http://ogs.unm.edu/funding/index.html</u>.

Student Employment

Students desiring part-time employment on or off campus will find open positions at the Student Employment Office website at <u>http://www.unm.edu/~wsestudy/</u>. Note some of these positions require students to be work-study qualified.

The University maintains a Career Services Center to assist undergraduates, graduate students and alumni in finding suitable employment. Career Services is located in the University Advisement and Enrichment Center, second floor room 220 in Mesa Vista Hall. They can be contacted at 505/277-2531. The Career Services office is open various times during the week, be sure to visit their website at http://career.unm.edu.

SOURCES OF RESEARCH FUNDS

Research usually costs money; you should not hesitate to explore the limited sources of funding available to graduate students. The following are some suggestions of funding sources available from the Biology Department, the University, and nationally. Additionally, the Biology Graduate Student Association <u>BGSA website</u> has a list of funding resources; this list is updated and maintain by students in the Biology Program. Funding leads are forwarded to the Biology Graduate Student Listserv (BGSA-I), by other students as well as the Graduate Program Office Coordinator. Students are encouraged to share funding leads with other Biology 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. 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 is demonstrated. The lifetime limit in research grants is \$1,000 for Master's 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 Student Research Allocations Committee (SRAC; see below) that same semester for that particular activity, or proof of SRAC ineligibility must be given. See further information below: 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. These funds are available in the Fall and Spring only; no Summer GRAC funds are available.

Grove Scholarships

Three types of the Alvin R. and Carolyn G. Grove Scholarships are available based on funds. (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 period for the Alvin R. and Caroline G. Grove Scholarships is once a year, during the Spring semester. 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) and on the BGSA and Biology Department websites.

University

GPSA Project Funds (PB)

The Graduate and Professional Student Association (GPSA) Projects Committee funds events that promote graduate and professional student involvement at UNM and other endeavors that benefit the

professional growth of students. This includes, but is not limited to lectures, workshops, symposia and cultural events.

Proposals are accepted continuously throughout the year. Students may apply at any time during the semester. Each application must include a completed application form, budget, letters of support, and acknowledgment of GPSA support.

Projects funding will not cover salaries, class or course projects, capital acquisitions, including equipment, party-affiliated political or religious groups, or ongoing events previously funded two times by the Projects Committee. The committee will fund refreshments only if the organization has secured funding of all other expenses from additional sources. The Projects Committee may fund applications up to \$500, awards more than this amount must be referred to the GPSA Council for approval.

For more information regarding these funds, please see the following website: <u>http://ogs.unm.edu/funding/index.html</u>

Student Research Allocations Committee (SRAC)

The Student Research Allocations Committee (SRAC) grants are the most well-known of Graduate and Professional Student Association (GPSA) funding sources. SRAC funds research related to the completion of a degree as well as other research relevant to the applicant's field. SRAC also funds travel to conferences to present research.

The SRAC Committee has three funding cycles a year. The deadlines for SRAC are the fifth Friday of Fall and Spring semesters and the first Friday of Summer term. Packets must be received in the GPSA office by noon. Applications will be considered for research or travel during the current semester, as well as one semester retroactively. Students may receive up to \$500 per academic year through SRAC (beginning with the summer funding cycle).

Additionally, students may apply for travel funds through the BGSA. 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. These funds are available in the Fall and Spring only; no Summer GRAC funds are available.

Submit applications to the GPSA office, Room 1021, Student Union Building, UNM, by noon of the due date and/or to the Biology Graduate Student Association per instructions list on the website. For more information, call the GPSA office (505/277-3808). For further information, please refer to http://ogs.unm.edu/funding/index.html

Specialized Travel (ST)

The Specialized Travel (ST) fund, organized by the GPSA Specialized Travel Committee, was created in 1998 to help graduate and professional students with travel expenses for events other than conferences and not covered under the SRAC grants. This includes travel to interviews, clinicals, and anything that is not classified as a conference (or an event with a registration fee). Students may now receive \$300 per academic year through the Specialized Travel fund. Academic years begin with Summer (June 1 to August 14), then Fall (August 15 to December 31) and end Spring (January 1 to May 31).

All applications are to be presented at the BGSA office, Room 1021, Student Union Building, UNM, by noon of the due date. For more information, call the GPSA office (505/277-3808) or visit <u>http://www.unm.edu/~gpsa/GPSA/HOME.html</u>.

Graduate Research and Development (GRD) Funding

The Graduate Research and Development (GRD) Committee is a standing committee in the GPSA. It was created around the funding that was allocated to the GPSA by the New Mexico State Legislature in 2000. This funding source for graduate and professional students is designed to assist larger projects

that require substantial funding, and is aimed at encouraging UNM students to work on research with state agencies, or in areas that directly benefit the state of New Mexico. The purpose of these funds is to promote graduate and professional research projects that have a direct impact on New Mexico's communities. See <u>http://www.unm.edu/~gpsa/GPSA/GRD.html</u> for more information.

National

Information on other research funds (e.g., NSF, NIH, Sigma Xi) is available from the office of the Vice President of Research website or by using the MIDAS Database. For further information, see: <u>http://research.unm.edu/</u> The Graduate Resource Center offers assistance in looking for funding including a workshop titled "Hands-on Funding" (see <u>the GRC website</u>).

DEPARTMENTAL SEMINARS

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 are expected to 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 two seminars (Ph.D.) during his/her graduate career.

New Graduate Student Seminar (Orientation)

All new graduate students in the Biology Department are **required** to register for and attend Biol. 500 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. This seminar meets one or two days the week before school begins each Fall semester.

Scientific Integrity course

Additionally, incoming students must register for and attend the Scientific Integrity course, which is held the week before the Fall semester begins. This course discusses research ethics and students are awarded a certificate at the end of the two half-day course. NIH and other grant funding agencies expect students to have taken this course before they are eligible to participate in research funded by these agencies.

FACILITIES AND SERVICES

Office and Laboratory Space

Every graduate student with a Teaching Assistantship receives office space, assuming space is available. This space is for your own work and a place to help your own students. Office space is assigned by a BGSA elected official 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. Please remember to inform the BGSA official of any changes. It is possible, but not certain, that office space may be available for students who have been awarded Research Assistantships or working on their dissertation. It is more likely that they will find space in the lab of their Principal Investigator.

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.

Classroom Reservations

Castetter Hall classrooms may be reserved for committee meetings, presentations, dissertation defenses, review sessions, etc. To reserve space, contact the Biology Graduate Program Coordinator. They will need the room desired, date, starting time, ending time, number of people in attendance, and the purpose of the meeting. Certain rooms may be confirmed immediately, while others must be reserved through the UNM Scheduling office by Biology staff. Please request at least five (5) days in advance. Staff will work with you to schedule a room for your need; however, some flexibility may be required.

BGSA Computer Pod

There is a computer pod (lab) in Room 40 in Castetter Hall basement. 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. The T.A. is assigned by the Biology Graduate Program Coordinator and the Associate Chair each semester. The name of the Computer Pod TA will be listed on the BGSA's website. For further information please contact the BGSA (http://biology.unm.edu/BGSA/).

The pod has a few computers, a desktop printer, a scanner and a large (poster size) printer. Printer supplies and paper are provided by the BGSA, but you have to provide your own external storage device (e.g., USB drive). Macintosh and PC software with manuals are also available. Please observe all copyright laws. 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 when necessary.

Every user is required to observe the UNM "Acceptable Computer Use" policy and the BGSA rules displayed. 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 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 desktop computers are connected to the UNM network. Through these computers, it is possible to access e-mail and the World Wide Web. Instructions for obtaining a UNM Net ID or other computerrelated information can be obtained from <u>Information Technologies</u> (IT), which is responsible for the computer facilities in general at UNM. IT also provides several computer pods on campus for student use; laser printers are available. Check the IT website for more information and for the hours of specific pods. Their Help Desk is located in the IT Building; their phone number is 505/277-5757 or you can create a Help Ticket at <u>Help.unm.edu</u> (which requires a UNM Net ID).

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 their 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.

Some equipment such as data projectors, dollies, etc. is available from the Storekeeper for check-out on a first-come, first-served basis. Any item checked out of the Storeroom becomes the responsibility of the person who signs for it; if the item is stolen, damaged or lost, it will be replaced at the expense of the person who checked it out.

Main Office Support and Supplies

It is important to establish a good working relationship with the Biology 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 by the Storekeeper. If you are asked to obtain supplies from the Storekeeper, ask the faculty member in charge of the class or departmental unit for an index number.

Photocopying

A copy machine is located in the room adjoining the Biology Main Office; it is to be used as little as possible with most copying needs being sent to the UNM Copy Center. A departmental copier account code is required to make copies on the departmental copier, which is assigned a monthly limit. Please maintain security of the copier account code by keeping this number confidential. Lengthy copying jobs will need a Purchase Requisition and must be sent to the UNM Copy Centers; the course instructor can provide instructions for this.

Fax Machine

A fax machine is available in the Main Office for business use. The Main Office Front Desk staff will fax your documents for you. All long-distance fax transmissions must be recorded on a fax log that provides the purpose of the fax and the index number to be charged.

Keys

To receive keys for access to classrooms and offices, Biology students are required to obtain and complete a Key Request form. These forms are located outside the Storekeeper's office. The major professor, class instructor, or the Graduate Program Coordinator must sign the form authorizing the keys to be issued. The Key Request form is then taken to the Biology Storekeeper, who will issue a Key Card. The Key Card is taken to the <u>UNM Lock Shop</u> to pick up the keys. (Please note: *the Lock Shop will not issue keys without a current LoboCard, and is closed on Fridays*). The lock shop is located north of Lomas Blvd. behind the New Mexico Educator Federal Credit Union. When no longer needed, keys are to be returned to the Lock Shop. The voided, stamped card received from the Lock Shop is to be taken back to the Biology Storekeeper to update the Department key list. The Lock Shop may charge for any lost keys as well as require a police report (see the UNM Lock Shop website for more information).

Office Hours

Teaching Assistants must post an office-hours schedule on their office doors and submit a copy of these hours to the Front Desk in the Main Office by the second week of classes each semester. At the beginning of the semester, Main Office staff will place two office-hour cards in TA mailboxes to be completed. Return one card to the Main Office staff and post the other card to your office door. If you do not receive cards, please request a set. If you receive a set in error, please return to the Front Desk to be given to another person.

Textbooks

Students teaching courses may obtain a textbook from the instructor of the course or lab coordinator to be used during the semester. The bookstore carries required course textbooks.

Teaching Assistant Resource Center (TARC)

The <u>Teaching Assistant Resource Center</u> (TARC) was developed to provide resources and training to graduate students at UNM for their teaching assistantships. TARC is a center on campus that provides a variety of resources and training to Teaching Assistants and International Teaching Assistants on the UNM campus. TARC is located in the Communication and Journalism Building, Room 158. Their phone number is 505/277-3341. All Biology T.A.s are encouraged to visit the Center for resources, workshops and classes.

Student Homework Assignments

Depending on the course you are teaching, Teaching Assistants may allow their students to turn in homework and/or late assignments at the Main office Front Desk. Anyone using this service is expected to log in their documents, providing class number with section number and the T.A.'s name. The documents will be date/time stamped and placed in the instructor's box. All papers will be accepted during normal business hours. It is the responsibility of the T.A. to determine if the documents were turned in on time.

Mailboxes

All Biology graduate students are provided a mailbox in the main office for business and campus mail. You may be assigned a mailbox with another student or with your major professor.

Mail Services

The Main Office receives United States Postal Service (USPS) business-related mail and campus mail twice a day, around 8:30 a.m. and around 1:00 p.m. Anyone in the department may send business mail in UNM Dept. of Biology envelopes and stamped, personal mail by placing the item in the appropriate slot in the copy room (located next to the Main Office; however, the University Mailing Services will not *deliver* personal mail). Anything larger than an envelope being sent for business purposes must be checked in at the Front Desk, where it will be logged by the staff. It is necessary to put the name of the sender on the package/box and the index code for its postage; the package will not be sent if it does not have the index code, which will likely delay its mailing.

The USPS business mailing address for the Biology department is *University of New Mexico*, MSC03 2020, Biology, Albuquerque, NM 87131.

Incoming Business Packages are accepted via courier, such as UPS or FedEx, and are normally handled by the Storekeeper and sometimes by the Main Office staff. If you are expecting a package, please inform the Storekeeper and ask for the appropriate address to use.

Greenhouses

Two greenhouses are under the jurisdiction of the Biology Department. One is located near the main entrance to the building and is used for public display, events and research. The second greenhouse, located on the roof of the south side of the building, is devoted to research.

Telephones

The University of New Mexico maintains its own telephone system. When calling within the UNM campus, dial the last five digits of the number. Dial a "9" when making a local call.

Museums

The Museum of Southwestern Biology (MSB) and United States Geological Survey (USGS) are located northeast of the Department of Biology in the CERIA Building. The following divisions are housed in MSB with the name of the respective curator: MSB Director (Dr. Joseph Cook); Amphibians and Reptiles (Dr. Howard Snell); Arthropods (Dr. Kelly Miller); Genomic Resources (Dr. Joseph Cook); Birds (Dr. Christopher Witt); Fishes (Dr. Tom Turner); Mammals (Dr. Joseph Cook); UNM Herbarium (Dr. Tim Lowrey); Parasitology (Dr. Eric Loker); and USGS–Biological Survey Collection (Dr. Michael Bogan).

Animal Care

There is a lab animal facility (Biology Animal Research Facility [BARF]) located in the basement, which is under the direction of the Biology Dept. Lab Animal Technician and the Main Campus veterinarian. Anyone keeping or proposing to keep animals in the building must contact these people. 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 a MCACUC-sponsored training; 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 associated with using the <u>University Libraries</u>, 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 Science & Engineering Library, west of 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.

Additionally, there are five other libraries located at UNM: Zimmerman, Parish Memorial, Fine Arts & Design, Law, and Health Sciences. Students are encouraged to use the electronic library resources and the Interlibrary Loan program if you are unable to locate the materials you need.

Housing

Most graduate students live off-campus. To find a place to live, you may visit the off-campus housing webpage <u>http://och.unm.edu</u>, talk with other graduate students about good places to live or possible roommate situations, or visit UNM's campus living website at <u>http://housing.unm.edu</u>. Because many graduate students are temporary residents of the Albuquerque area and, frequently, new residents in New Mexico, they also may have specific questions regarding renters' rights and responsibilities in New Mexico and Albuquerque. The office of New Mexico Attorney General (NMAG) has a special section on their webpage for students ranging from auto accidents to a Renter's Guide to Scams and student loans <u>http://www.nmag.gov/consumer/for-students</u>.

STUDENT GOVERNMENT

Graduate and Professional Student Association (GPSA)

The GPSA is a graduate student run organization that represents students and student issues. GPSA members serve on various University committees. This association is important to all graduate students as they represent the student body and voice their concerns. Additionally, the GPSA funds student research and travel. For more information, see their website at <u>http://www.unm.edu/~gpsa</u>.

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

Commencement	Research Day
Computer	Scholarship
Faculty Search	Space/Building
Graduate Student Selection	Undergraduate Policy
Graduate Policy	Wednesday Brown Bag
Greenhouses	Others to be determined as needed

University Committees

The following list contains some of 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 GPSA office located in the Student Union Building (SUB).

Academic Calendar	Economic Impact Task Force
Administrative Committees	Faculty Ethics
Admissions & Registration Committee	Faculty Senate
Affirmative Action Policy	Gifts to Libraries Committee
Arts & Sciences Graduate Committee	Graduate Programs & Standards Committee
Athletic Council	Greater UNM Allocations Committee
Building Committee	Health Center
Campus Planning	Honorary Degrees
Campus Safety	Housing Committee
Committee Computer Use Committee	International Affairs Committee
Community Education	Intramural & Recreation Board
Cultural Programs Committee	Library Committee
Curricula Committee	National Science Foundation Committee

New Mexico Union Board Popejoy Hall Board Radio Advisory Radiological Safety Committee Research Policy Committee Restricted Gifts Committee Scholarships, Prizes & Loans Committee Sexual Harassment Speakers Committee Student Publications Board Student Radio Board Student Standards & Grievance Committee United Fund Committee University College Board of Deans University Committee on Human Subjects

FREQUENTLY ASKED QUESTIONS

Q: Where can I obtain required forms for the degree?

A: Most forms (or links) are located on the Biology website (<u>biology.unm.edu</u>) or the BGSA website (<u>biology.unm.edu/bgsa/</u>) or on the Office of Graduate forms page (<u>http://ogs.unm.edu/resources/ogs-forms/index.html</u>) or may be picked up from the Biology Graduate Program office

Q: When do I need to setup my Committee on Studies (COS)?

A: Both Master and PhD students must setup and meet with their COS, by the end of their Second semester. Meet with your major advisor as soon as possible to discuss classes and your committee.

Q: When should I notify my committee about the comprehensive exam?

A: A student should be communicating with their chair and committee the 3rd semester they are in the program about preparing for the Doctoral comprehensive exam. The student should expect to take the exam in the 4th but no later than their 5th semester, excluding summers. Details of the exam should be discussed the date, place and format should begin the semester prior to the exam (at least a month in advance).

Q: Do I need all new committee members for the Dissertation committee?

- A: No, this committee can be similar or vary from your Committee on Studies (CoS). This committee may be the same as your Committee on Studies with an additional approved member or may have some of the committee members or may be completely new. As the student progresses through the program, they may find their interests have changed and may discover that the faculty on their CoS will not be able to assist them with their research and dissertation. The student however must discuss their plans their current committee before moving to the new committee.
- Q: I am completing the Program of Studies (POS) or the Application for Candidacy (AC) form. It is asking for a major and major code, and a minor or concentration choices, what do I fill in?
- A: The Major is Biology. The Major Code is BIOL. Biology does not have a minor or concentration, please leave this blank.
- Q: Regarding transfer credits: the graduate handbook states that it is my studies committee that "recommends transfer of credits from other institutions". Is there a particular form or online process that I need to follow?
- A: Transfer credits are on the Application for Candidacy which is usually submitted around the time you take your comprehensive exam and the Program of Studies which is submitted the semester before you graduate or about 2 years whichever comes first. Just remember you can only transfer 24 or 12 credits respectively

Q: I have more than the required number of credits, should I list them all?

A: No, only list the number (or within 3 or 4 credits) required for the degree. 24 for Master's Plan I; 32 for Master's Plan II and 48 for PhD of Biology Related Graduate Course and toolskills if they were taken at graduate level. Please note: students may not count more than ½ of their requirements credits with one instructor (12 or 16 for MS and 24 for PhD.

Q: I listed a course on the POS or AC that will not be taught this semester, what do I do?

A: The Program of Studies (POS) and the Application for Candidacy (AC) are contracts between the University and the Student, therefore when changes are necessary, a new form may be necessary. A student changing from a M.S. Plan I to a Plan II will require a new form, however if there are a few minor edits (changes in classes) only a memo is required. This memo will need signatures from your Committee Chair indicating their approval. This memo can be addressed to the Graduate Program

Coordinator, the Biology Department or the Office of Graduate Studies, but must be submitted to the Graduate Program Coordinator for additional signature and to be delivered to OGS.

Q: I heard that the Biology Department has a listserv, how do I sign-up for it?

A: The Biology Department has two listservs that all students are asked to join to insure they hear all the communications: BGSA-L and UNMBIO-L. To sign up, go to <u>https://list.unm.edu/cgi-bin/wa</u>.You may find others that may also be helpful or of interest like GPSA-L.

Q: If the advisor and I are not communicating well, may I change advisors?

A: Yes, you may change advisors, if that is what is best for your program. You must let your current advisor and the Graduate Program Coordinator know that you are changing and you must find a new advisor within 60 days informing the Graduate Program Coordinator and complete a new Committee on Studies form.

Q: Do I formally submit my thesis to my committee on the day of my defense or sometime before that?

A: Each committee member should be getting drafts as you go along. The committee should have a final draft at the defense – do not expect them to keep copies – provide them a completed final draft. Each committee and faculty expectations are different; they may want a paper or electronic copy. Please be sure to ask which works best for them. Once you have defended and the committee approves your document, you will need to upload it to the OGS site in LoboVault by the semester deadline. Finally you need to give a copy to the Graduate Program Coordinator; either a PDF on a CD or a Paper copy is acceptable to keep on file in the department. You should ask the committee if they want a copy of the final document.