Graduate Handbook for Statistics

University of New Mexico
2019–2020

Updated June 15, 2019

Contents

1   Overview

This handbook describes the rules of the Department of Mathematics and Statistics governing graduate study and the awarding of degrees in Statistics. Students should consult the University of New Mexico (UNM) Catalog, and Statistics faculty members about questions not covered in this handbook. The UNM Catalog is always the governing document in case of any conflict between statements made in this Handbook and the UNM Catalog. The relevant catalog pages for all graduate students in the Department of Mathematics and Statistics are:

`http://catalog.unm.edu/catalogs/2016-2017/graduate-program.html`

`http://catalog.unm.edu/catalogs/2016-2017/colleges/arts-sciences/math-stat/index.html`

`http://catalog.unm.edu/catalogs/2016-2017/colleges/arts-sciences/math-stat/graduate-program.html`

(For older or newer catalogs, change the years in the links in the obvious way.)

The Office of Graduate Studies (OGS) defines deadlines and provides other important graduation information:

`http://grad.unm.edu/home/`

1.1   General Remarks

The Department offers the degrees of Master of Science (MS) and Doctor of Philosophy (PhD) in Statistics. The departmental Graduate Committee and the Statistics Group Faculty supervise these degrees.

The University of New Mexico requirements for graduate study and advanced degrees are included in the UNM Catalog. Students are strongly encouraged to read the webpages for the Catalog mentioned above and become familiar with them. Please note that the UNM Catalog states: **"Ignorance of a rule will not be accepted as a basis for waiving that rule"**. Certain regulations, such as language requirements, credits, and examination procedures may be altered, either within the Department or on a University-wide basis during a student's period of study. In that event a student making normal progress may proceed in accordance with either the new regulations or may choose to remain under the regulations in effect at the time of admission to the graduate program. In the case of a student who has satisfactorily completed a required course before beginning graduate studies, a suitable course may be substituted with appropriate approval.

1.2   Statistics Faculty

Information on the **Statistics Group Faculty** including their areas of interest can be found on the Department's websites:

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http://stat.unm.edu
http://stat.unm.edu/people/academic-personnel/tenure-stream
http://stat.unm.edu/research/statistics
```

Faculty websites[1] are based on their `emailname` at:
`http://stat.unm.edu/~emailname`

Professor	emailname	Address
Fletcher Christensen	ronald	ronald@stat.unm.edu
Ronald Christensen	fletcher	fletcher@stat.unm.edu
James Degnan	james	james@stat.unm.edu
Erik Erhardt	erike	erike@stat.unm.edu
Gabriel Huerta	ghuerta	ghuerta@stat.unm.edu
Li Li	lil	lil@stat.unm.edu
Yan Lu	luyan	luyan@stat.unm.edu
Guoyi Zhang	gzhang12	gzhang12@stat.unm.edu

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[1] Yes, Fletcher's email is `ronald` and Ronald's email is `fletcher`.

2   Program Goals

2.1   The Master Of Science (MS) Program

The goal of the MS program is for the student to develop proficiency in statistics through course work, participating in research seminars, attending colloquia, and possibly by writing a thesis.

2.2   The Doctor Of Philosophy (PhD) Program

The goal of the PhD program is for the student to write a dissertation that makes a contribution to statistics research. To do this, the student must become familiar with the breadth of current research topics. This is done by taking advanced courses, participating in research seminars, attending colloquia, and talking to the faculty. Students should investigate the faculty's research interests and ask faculty members for reading material on topics of interest.

The PhD program in statistics is quite flexible. The degree can vary from one that builds the skills necessary to modify existing methodologies and develop new methods for applied problems, to one that builds a deep knowledge of the mathematics behind current research in statistics. The background and courses necessary for each student's program will vary. As early as possible, and no later than the second year of PhD studies, the student, with consent of the Graduate Committee, must select an advisor and a Committee on Studies to ensure that the student has adequate preparation for conducting dissertation research in her/his area of choice. All students are required to have a firm grasp of the mathematical properties of existing statistical procedures. This is achieved through taking a sequence of core courses. The Committee on Studies will require additional work in statistics and may require supporting work in mathematics or an area of application. This work is tailored to the nature of the dissertation and will focus the student toward an area such as Bayesian analysis, biological applications, correlated data modeling, time series, spatial statistics, survey sampling, linear models, nonparametric statistics, or other choices. (A major change in the intended dissertation area may involve a major change in the requirements imposed by the Committee on Studies.)

3   Entering the Program

3.1   Admission Requirements

MS

The primary requirement for admission is a bachelor's (BS or BA) degree in statistics, mathematics, engineering, or any field with a strong quantitative component. In particular, a calculus sequence (Math 162 and 163) that includes the calculus of several variables (Math 264) and courses in statistics (STAT 345) and linear algebra (Math 314 or 321) are required. On occasion, students are admitted with deficiencies in their backgrounds. Deficiencies must be reviewed with the faculty advisor and corrected as soon as possible. **These deficiencies do not override the Department or University Policies on time to degree or financial support** (see UNM Catalog for details: `http://grad.unm.edu/current-students/documents/masters-handbook.pdf`).

PhD

The prerequisite for entrance into the PhD program is knowledge of linear algebra and advanced calculus. Formal admittance to the program is achieved by passing the PhD qualifying examination, which is described in the Master's program Examination Requirements. Students who transfer to UNM with a Master's degree from another institution are required to take the PhD qualifying examination as soon as practical, **and in no case later than one year after admission**. If such a student has passed a qualifying exam in Statistics at another institution, the student may petition the Graduate Committee for an exemption from the qualifying exam requirement. The Committee will review the petition and decide if the exemption is granted or not.

3.2   Advising

Each student in the Department is required to report to the Department Coordinator in Program Advisement who will assign a faculty advisor. The faculty advisor must approve the student's program of studies each semester. Any student who fails to obtain the faculty advisor's approval of their program each semester may be subject to dismissal from the program. Advisors may be changed by contacting the Department Coordinator in Program Advisement (Academic Advisor).

3.2.1   Required Forms

Over the course of your academic career, a variety of forms need to be submitted. **All of these forms should be submitted to the Dept. Academic Advisor** who will copy the form for the student academic file and submit the original to the Office of Graduate Studies. Bypassing regular channels could result in confusion and the probability that your degree will not be granted in a timely manner.

Form	Submission Date
Program of Studies For MS	Semester prior to graduation
Announcement of Examination (MS Plan I, II, or PhD Qualifying)	2 Weeks prior to Exam
Announcement/Report of Examination (MS Plan I, II, or PhD Qualifying)	After passing exam on Sep 15th or Feb 15th
Notify Department to submit your Intent to Graduate (MS)	As early as possible in the semester before you plan to graduate
Change of Degree Status (from MS to PhD)	Prior to MS Graduation
Announcement of Examination Form	2 Weeks prior to PhD Comprehensive Exam
Language or Research Skill Requirement	Upon completion of skill (for Dept. Record/Academic File)
Application For Candidacy For Doctoral Degree	Upon completion of Skills & PhD Comps
Dissertation Committee Form	As soon as committee is formed
Announcement of Final Examination For PhD	2 Weeks prior to Dissertation Defense
Notify Department to submit your Intent to Graduate (PhD)	As early as possible in the semester before you plan to graduate
Report on Dissertation, Check with OGS for Manuscript Forms/Fees	For Dissertation Committee at Defense, Nov. 15 (Fall), April 15 (Spring), July 15 (Summer)

3.2.2   Graduate Student Timeline

When	MS	PhD
Begin Year 1	Begin MS Core Stat	
End Year 1	File Program of Studies, Choose either Plan I or II	
Begin Year 2	Select thesis committee, Intent to graduate due the semester, Begin thesis hours if Plan I	
End Year 2	Announce exam for thesis defense or quals two weeks prior to defense, Complete manuscript and Exams or defend thesis, Manuscripts due to OGS by posted deadlines, Graduation each May in Dept	Quals or MS Thesis Defense

PhD

When		
Begin Year 3	Select Committee on Studies (may become the Diss committee) PhD courses 18 hours	
End Year 3	Do Comprehensive Exam, Select Dissertation Comm, Certification of Language Fill out form for Advancement to Candidacy	
Begin Year 4	Notify Intent to Graduate semester before grad, Submit form for non-UNM committee member approval Dissertation Hours STAT 699	
End Year 5	Finish Dissertation, Apply for jobs, Get ready for real life, Manuscripts due to OGS by posted deadlines, Graduation each May in Dept Announce 2 weeks prior to defense	

Note: Schedule is intended for full-time students, more time may be expected for part-time students.

4 Program Requirements

It is essential that you become familiar with this information and are aware of your responsibilities as a graduate student. Please keep referring back to these dates and forms as they are critical to successful completion of your Graduate programs. As you read this, consider adding important dates to your personal calendar with advanced reminders of deadlines.

4.1 General Requirements

The MS degree is awarded in two plans as described below. Plan I is the thesis option; Plan II is the non-thesis option. While a student may choose a minor field of study in consultation with an advisor, there is no formal minor requirement for the MS degree in Statistics. Additionally, there is no requirement for a foreign language.

4.1.1 MS

MS Plan I (Thesis)

Candidates complete their graduate work by fulfilling course work requirements defending the thesis and submitting an approved thesis to the Department and OGS. Admittance to this plan requires the student finding a willing thesis advisor who is acceptable to the Statistics faculty.

1. A minimum of 26 hours of course work at the 400 or 500 level in Statistics and related fields. At least 18 of these hours must be within the Department, and of these at least 12 hours must be at the 500 level.
2. The Department will accept up to 12 hours of non-degree credit, but the remaining course requirements must be completed after admission to the graduate program.
3. A maximum of six (6) hours in problems or individual study courses.
4. Not more than six (6) hours of thesis credit.
5. The MS Examination will be a defense of the thesis.
6. The student is responsible for finding a person willing to act as thesis advisor who is acceptable to the Statistics faculty.

MS Plan II (Non-Thesis)

Candidates complete their graduation work by fulfilling course work requirements and successfully passing the written Master's examination. (This is the plan that most students should follow.)

1. A minimum of 32 hours of course work at the 400 or 500 level in Statistics and related fields. At least 24 of these hours must be within the Department, and of these at least 12 hours must be at the 500 level.
2. The Department will accept up to 12 hours of non-degree credit, but the remaining course requirements must be completed after admission to the graduate program.
3. A maximum of 12 hours in problems or individual study courses.
4. Satisfactory performance on the MS Examination. Please see Section 4.4 for details.

4.1.2   PhD

Candidates complete their graduate work by fulfilling course work requirements, successfully passing the qualifying and comprehensive examinations, and submitting an approved dissertation and report of dissertation defense to the Department and OGS.

The first phase of the doctoral program requires a minimum of 18 semester hours of work in Statistics beyond the Master's degree. Not more than 6 of these hours may be taken in reading or special topics courses. When these requirements are satisfied, the student takes the comprehensive examination, and upon passing the comprehensive examination advances to candidacy. After advancing to candidacy, the student is required to complete at least 18 hours of dissertation coursework.

4.2   Course Requirements

The MS Required Courses are required of all students. Unless otherwise noted, all courses are three credit hours.

4.2.1   MS Required Courses

Required courses and suggested schedule:

1. STAT 540 Regression Analysis
2. STAT 545 ANOVA and Experimental Design
3. STAT 561 Probability and its Applications
4. STAT 553 Statistical Inference

4.2.2   MS Additional Coursework

Students must take a minimum of 14 elective credit hours for Plan I, or 20 elective credit hours for Plan II, subject to the approval of the advisor.

Comments:

1. Master's students planning to pursue a PhD degree should elect plan II and are encouraged to include MATH 510 (Real Analysis) and STAT 546 (Linear Models) in their program.
2. With the consent of the graduate committee, STAT 579 and 649 can be repeated for credit.
3. Students are encouraged to seek quantitative courses from other departments to include in their programs. Students are required to have the approval of their faculty advisor before such classes can be included in the degree program.
4. Students interested in Biostatistics are encouraged to include STAT 574, 576, and 577 in their program.
5. Students interested in industrial applications are encouraged to include STAT 570, 572, and 581 in their program.

4.2.3   MS Plan Of Study: Courses And Sample Sequences

Sample Sequence for Terminal MS Plan I

Fall 1st year	Spring 1st year	Fall 2nd year	Spring 2nd year
STAT 561	STAT 553	STAT 577	Elective
STAT 540	STAT 545	Elective	Thesis Hours
STAT Elective	Elective	Thesis Hours	

Sample Sequence for Terminal MS Plan II

Qualifying exam attempts should follow immediately after completing required courses.

Fall 1st year	Spring 1st year	Fall 2nd year	Spring 2nd year
STAT 561	STAT 553	STAT 577	Elective
STAT 540	STAT 545	Elective	Elective
STAT Elective	Elective	Elective	
	. . . Qual Exam	(. . . Qual Exam)	

4.2.4   PhD Required Courses

The two sequences STAT 546, 547 and STAT 556, 557 are offered in alternate years. PhD students are required to take whichever sequence is offered immediately after they complete STAT 545 and STAT 553. Furthermore, STAT 577 is now required of all students.

4.2.5　PhD Plan Of Study: Courses And Sample Sequences

The sample sequence for PhD below are for students starting from either a BS or MS, with students with an MS starting at Fall 2nd year. Note that MATH 510 should be taken prior to (preferred) or in conjunction with (discouraged) STAT 556.

Fall 1st year	Spring 1st year	Fall 2nd year	Spring 2nd year
STAT 561	STAT 553	STAT 546	STAT 547
STAT 540	STAT 545	STAT 590	STAT 577
MATH 510	Elective	Elective	Elective

Fall 3rd year	Spring 3rd year	Fall 4th year	Spring 4th year
STAT 556	STAT 557	Dissertation Hours	Dissertation Hours
Elective	Elective		
Elective	Elective		

4.2.6　Course Offerings in Statistics and Mathematics

STAT 345　Elements of Probability and Mathematical Statistics
STAT 427/527 Advanced Data Analysis I (does not count toward graduate degree in the Department of Mathematics and Statistics)
STAT 428/528 Advanced Data Analysis II
STAT 434/534 Contingency Tables and Dependence Structures
STAT 440/540 Applied Regression Analysis
STAT 445/545 Analysis of Variance and Experimental Design
STAT 453/553 Statistical Inference
STAT 461/561 Probability
STAT 470/570 Industrial Statistics
STAT 472/572 Sampling Theory and Practice
STAT 474/574 Biostatistical Methods: Survival Analysis and Logistic Regression
STAT 476/576 Multivariate Analysis
STAT 477/577 Introduction of Bayesian Modeling
STAT 479　Topics in Statistics
STAT 481/581 Introduction to Time Series Analysis
STAT 495　Individual Study
STAT 520　Topics in Interdisciplinary Biological and Biomedical Sciences
STAT 546　Theory of Linear Models
STAT 547　Multivariate Analysis and Advanced Linear Models
STAT 556　Advanced Statistical Inference I
STAT 557　Advanced Statistical Inference II
STAT 565　Stochastic Processes with Applications
STAT 569　Selected Topics in Probability Theory

STAT 579   Selected Topics in Statistics: Instructor selected topics of current interest in Statistics
STAT 586   Nonparametric Curve Estimation and Image Reconstruction
STAT 590   Statistical Computing
STAT 595   Problems
STAT 599   Masters Thesis
STAT 605   Graduate Colloquium
STAT 649   Seminar in Probability and Statistics
STAT 650   Reading and research
STAT 699   Dissertation

MATH 463/512 Introduction to Partial Differential Equations
MATH 464/514 Applied Matrix Theory
MATH 472/572 Fourier Analysis and Wavelets
MATH 504   Intro. Numerical Analysis: Numerical Linear Algebra
MATH 505   Intro. Numerical Analysis: Approx. and Diff. Eqns.
MATH 510   Introduction to Analysis I
MATH 511   Introduction to Analysis II
MATH 563   Measure Theory (The basis for probability theory)
MATH 581   Functional Analysis I (Related to nonparametric regression)

Statistics courses in other departments

Note that other departments teach their own versions of Statistics courses. While such courses will not necessarily count for credit within our program, some exceptions may be made on an individual basis either by the Graduate Committee or by the student's academic advisor. The courses below represent classes that the statistics faculty have made decisions about in the past.

PH 539 Public Health Biostatistical Methods II Credit for either STAT 428/528 (Advanced Data Analysis II) or PH 539 (Public Health Biostatistical Methods II) will count toward the STAT MS degree, but not both, with credit for PH 539 only counting with prior approval by the student's academic advisor.

BIOM 505, Special Topics in Biomedical Sciences BIOM 505 will count as an elective toward the STAT MS degree. Aside: BIOM 505 for the STAT BS degree will count as an upper division elective or elective any level, but not as a Stat 400+ elective.

4.3   Advancement To Candidacy

MS

After 15-18 hours of resident graduate credit, students should secure a form for Program of Studies from the Department Academic Advisor. In consultation with the student's faculty advisor and the Academic Advisor, the candidate lists completed and projected course work and elects either Plan I (thesis) or Plan II (non-thesis). The application is then returned to the Academic Advisor for signatures by the faculty advisor and by the Chair of the Graduate Committee before being sent to OGS for the approval by the Dean of Graduate Studies. Anyone electing Plan I must have previously reached an agreement with a faculty member to direct their MS thesis.

PhD

After 18-21 hours of doctoral course work, students should secure a form for Application for Candidacy from the Department Academic Advisor. At this time, the student also formally declares a Committee on Studies. In consultation with his/her committee chair on studies, the candidate lists completed and projected course work. The application must be returned to the Academic Advisor signed by the entire Committee on Studies and be signed by the Department Chair before being forwarded to OGS for approval.

A student is admitted to formal candidacy for the PhD upon passing the PhD Comprehensive Examination. This examination consists of a written exam covering core material in Advanced Inference I (STAT 556), Advanced Inference II (STAT 557) and Linear Model Theory (STAT 546) and Multivariate Analysis and Advanced Linear Modeling (STAT 547).

4.4   Examination Procedure: MS/PhD Qualifying Exam

The qualifying examination is common for both MS (Plan II) and PhD degrees, with a higher standard of performance required to pass at the PhD level. The examinations are given each August, just before the fall semester begins, and again in January, before the start of the spring semester. A student planning to take the examination must inform the Department Academic Advisor and the Graduate Committee before the examination according to the guidelines and deadlines set by the Graduate Committee and/or the Academic Advisor. **The exam consists of two parts, an in-class portion and a take-home portion.** The in-class exam is on Probability and Statistical Inference, which is material covered in STAT 561 and STAT 553. The take-home exam typically requires, but is not limited to, the analysis of one or more sets of data. This portion is based on STAT 540 and STAT 545. Students entering our program with a Bachelor's degree would normally take the MS exam after the first year of study. Copies of many previous examinations are available to students on the web at
`http://math.unm.edu/graduate/past-qualifying-exams-statistics`.

In the initial attempt at the examination, students **must take both portions of the exam**. If only one portion is taken (for example, the in-class portion but not the take-home), the

attempt is considered a Fail. If the initial attempt at the examination is failed, it can be repeated **once** within one academic year. For graduate teaching or research assistants, the examination **should be repeated within one semester**. For a repeated exam, it is at the discretion of the Statistics group and Graduate Committee whether the student is required to re-take both portions. A written report on the outcome of the examination (or re-examination) signed by the Graduate Committee Chair, will be given to the student and a copy will be placed in the student's file held at the Department.

Once the student has passed both portions of the exam at the Master's level or higher, the student must file the Announcement/Report of Examination form found under the heading Examination/Grades at `http://grad.unm.edu/resources/gs-forms/index.html`. If the exams are completed in August, the form should announce the date as as September 15. If the exams are completed in January, the form should announce the date as February 15. If either of these dates falls on a weekend, the form should announce the examination date as the prior Friday. When listing the committee on this form, students will list the current members of the Graduate Committee.

Applications for the Program of Studies for the Master's Degree must be filed with the Dean of Graduate Studies during the semester before the student plans to take the Master's Examination (see UNM Catalog for details: `http://grad.unm.edu/resources/gs-forms/pos-masters.html`).

4.5   MS Thesis and PhD Dissertation

4.5.1   MS Thesis (Plan I)

Thesis Committee

Only those who select the Thesis option (Plan I) for the MA are required to form a Committee on Studies.

The student must find a faculty Advisor who is willing to serve as chair of the Thesis Committee. The student needs to obtain the consent of two other faculty members to serve as members of the thesis committee.

At this time, OGS has no forms for constituting a thesis committee, but the Department Academic Advisor should be notified in writing.

Thesis Credit Hours

Students opting for the MS with thesis must complete a minimum of six (6) hours of Thesis (599) credit. While working on the thesis, students must continue to register for a minimum

of one hour of 599 each Fall and Spring semester until the thesis is approved by the Dean of OGS. Thesis candidates must be enrolled the semester in which they complete degree requirements, including summer sessions. Enrollment in 599 thesis must be continuous and should not begin until student is working on the thesis.

4.5.2 PhD Dissertation

Committee on Studies

Each doctoral student is required to have a Committee on Studies, see Section 4.3. The committee should be chosen as discussed in Section 4.5.2. For more details, see
http://grad.unm.edu/resources/gs-forms/committee-service.html

Upon passing the PhD qualifying exam, each student must arrange for a Committee on Studies to be appointed. The chairperson of the Committee on Studies serves as the student's academic advisor. The responsibilities and functions of the Committee on Studies are fully discussed in the UNM Catalog. Specifically, the Committee:

1. Defines the areas in which the student must show competency.
2. Recommends transfer of credit, where appropriate.
3. Certifies the residence requirements.
4. Certifies the computing language requirement.
5. Participates in the administration of the comprehensive exams and dissertation defense.
6. The membership of the Committee on Studies usually serves as the core of the dissertation examination committee.

Dissertation Committee

After successfully passing the Doctoral Comprehensive Examination, Doctoral students formally constitute a Dissertation Committee. This committee typically contains members of the Committee on Studies, but need not have all its members. Students initiate the formation of their committee by soliciting a faculty member to serve as director of the dissertation and chair of the committee. The student and director/chair then agree upon the remainder of the committee and complete an "Appointment of Dissertation Committee" form. This form requires the signature of the candidate, the Committee Chair, the Department Chair, and the Dean of OGS.

Dissertation committees must include at least four members approved for graduate instruction by the Dean of Graduate Studies. At least two members must be tenured or tenure-track faculty in the Statistics Group. A third member must be tenured or tenure-track faculty outside the UNM Department of Mathematics and Statistics. This member may be from

UNM or another accredited institution. Additional members must be approved experts in Statistics or the area of dissertation application.

The chair and/or members of the PhD Committee on Studies may be changed, however, the student needs the consent of faculty being added to the committee and must notify both former and new members of the Committee and the Department Academic Advisor of the changes. Changing the chair will most often require a change in the dissertation topic. Changes of regular members of the committee should be made in consultation with the committee chair.

Dissertation Credit Hours

The program for the doctorate includes a minimum of 18 hours of dissertation (699) credit. While working on the dissertation, students must continue to register for at least one hour of 699 each Fall and Spring semester until the dissertation is approved by the Dean of OGS. Doctoral candidates must be enrolled the semester in which they complete degree requirements, including summer sessions. Enrollment in 699 dissertation hours may not begin prior to the semester in which Comprehensive Exams are passed.

Dissertation Progress

All matters related to the completion of requirements for the PhD will be dealt with by the dissertation committee. The chair of the dissertation committee, together with other members, will be responsible for directing and advising the dissertation research, overseeing the writing, evaluating and approving the completed dissertation, and conducting the defense.

Dissertation Final Defense And Submission

Upon completion of the dissertation and at least 18 hours of dissertation course work, a final examination (i.e., defense of the dissertation) is the final formal step before the awarding of the PhD. The defense usually occurs in the context of a department colloquium talk. The defense is a final oral presentation covering the dissertation and its relationship to Statistics. Three weeks prior to the defense, students should inform the Department Academic Advisor of their intention to defend, the scheduled date and time, and the committee composition. As with the comprehensive exams, OGS must receive the "Announcement of Dissertation Defense" form listing the exam committee members and signed by the Department Chair at least two weeks prior to the exam. No defense can be held without properly filing this form.

Candidates should also note that the UNM Catalog/Graduate Program directs that a complete copy of the dissertation must be submitted to each member of the committee **at least two weeks** before the final defense.

The Final Defense is public and open to all who wish to attend. Announcements must be sent at least one week in advance via e-mail to the Department mailing lists.

Please refer to the UNM Graduate Studies website for further information:
`http://grad.unm.edu/resources/gs-forms/announcement-examination.html`.

Dissertation Submission

In order to graduate in a given semester, the student and department must provide OGS, by November 15, April 15, or July 15, with the following:

1. Report of the results of the final oral defense
2. Two copies of the dissertation "in perfect form"
3. "Report on Dissertation" from each Committee Member
4. "Survey of Earned Doctorates"

5 Leaving the Program

5.1 Graduation

5.1.1 Deadlines

Notification of the Intent to Graduate for both MS and PhD students is due to the Coordinator of Program Advisement at least 30 days before the end of the term in the Summer for Fall graduation, 30 days before the end of the Fall semester for Spring Graduation, and 30 days before the end of Spring semester for Summer graduation.

Report of Exam for Thesis or Dissertation must be signed and submitted to OGS by November 15 for Fall, April 15 for Spring, and July 15 for Summer in order to complete graduation requirements. We recommending submitting this form at least a week before the deadline.

Please refer to the UNM OGS website for further information:
`http://grad.unm.edu/degree-completion/deadline.html`.

5.1.2 Ceremony

Degrees are awarded three times a year (end of Spring, Fall, and Summer). Convocation is in December and May. The annual departmental ceremony takes places in May.

5.2 Time Limits

MS

Currently, OGS dictates that all work toward a Master's degree must be completed within a seven (7) year period beginning from the first graduate course taken in an approved program, including any transfer credit from another institution. For example, if a student's first course used to transfer credit from another institution was taken 2 years before entering UNM, then the student has 5 more years to complete the program, rather than when that transfer credit was accepted at UNM.

PhD

A doctoral candidate has five years for completion of all degree requirements from the date s/he passes the comprehensives. This time limit includes the oral defense and submission of final dissertation copies to OGS.

A student may request an extension of this time limit only in writing. The request must be supported by the student's department and approved by the Dean of Graduate Studies. Extensions are not automatic; students must demonstrate progress toward completion of degree requirements.

5.3 Leave Of Absence And Readmission

Should a leave become necessary, students must contact their faculty advisor before beginning the leave of absence from course work. Students must then notify the Department Academic Advisor in writing about the timing and intended length of the leave. Dissertation or Thesis students planning a leave of absence must petition the Office of Graduate Studies, or they will be responsible for paying tuition costs for the semesters not in attendance. These are only granted for catastrophic circumstances and for a total of one year.

A student who is admitted and completes at least one semester of graduate studies in the Department is allowed three subsequent semesters, including summer, without taking classes. An absence of more than three semesters, including summer sessions, will result in a student being automatically dropped from the program. In this case, the application form for readmission must be filed with the Department at least six (6) weeks prior to the beginning of the semester in which the student will be returning.

Students should keep in mind that absences from graduate study are included in the MS and PhD time limits. Once enrollment for 599 (Thesis) or 699 (Dissertation) has begun, continuous enrollment must be observed (see "Master's Thesis/Thesis Credit Hours" or "Doctoral Dissertation/Dissertation Credit Hours" above).

For cases where continuous enrollment is not maintained and a leave of absence is not requested to the Department, the rules of the UNM catalog will be applied.

6   Student Financial Aid

The Department awards a number of Teaching Assistantships and a limited number of Research Assistantships each year. Most teaching assistantships are awarded during the Spring semester to applicants beginning their duties in the Fall. Individuals seeking a teaching assistantship are strongly encouraged to apply early. The Office of Graduate Studies administers Teaching and Research Assistantships. For more information see the Financial Assistance section in the current UNM Catalog.

The Graduate Committee is responsible for awarding teaching assistantships and also for determining which graduate students should be retained as teaching assistants. The following criteria are used in evaluating applicants for teaching assistants. An applicant should have:

1. An undergraduate major in mathematics or statistics or a closely related area of scientific study.
2. A high grade point average in undergraduate courses; particular attention will be given to mathematics and statistics courses.
3. Strong letters of recommendation.
4. A strong potential for academic achievement at the graduate level.
5. A strong potential for teaching beginning courses in mathematics and statistics.
6. A desire to participate in and contribute to a culturally diverse academic environment

Teaching assistants (TAs) must be physically present in the department at least one week before the beginning of the semester for training, orientation, and assignment of courses. Failure to do so may result in the loss of a teaching assistantship award. All TA's are expected to remain physically present in the Department until the last day of their contract, usually the last Friday of the semester and should be available through electronic contact at least a month after their contract ends. In addition, the TAs must be familiar with the document "Guidelines for Teaching Assistants and Part Time Instructors" provided by the department and with the information provided during the department in-service sessions.

6.1   Teaching Assistant Duties

Teaching Assistantship appointments are made with the expectation that the Teaching Assistant will be a successful and responsible teacher. In particular, it is important that the Teaching Assistant (TA) understands the following points:

1. Usually the TA is expected to teach one section of a lower division course. The TA also needs to be available at least 3 hrs/week for office hours. The TA assignment may also include the grading of homework and exams. TAs working in recitation for a faculty may be required to attend some of the faculty's lectures.
2. First time TAs are required to take the Teaching Assistant course offered by the Department of Mathematics and Statistics.

3. The department expects their TAs to be fluent in spoken English. This is particularly important since a high score in the TOEFL test does not guarantee the necessary degree of fluency to teach a class. In particular, the TA should be easily understood by the class and must also be able to understand questions frequently expressed in colloquial English. International students are expected to take the accent reduction evaluation and classes if needed. These classes and scholarships are offered through the Office of Graduate Studies. In addition, the English Department also offers English as a Second Language (ESL) Writing courses through special sections of English 100, English 101, and English 102. Placement for these ESL classes requires a one-hour diagnostic placement essay that can be arranged with the Freshman English Staff Assistant in Humanities Building 213. The ESL sections have restricted access. Failure to use the many avenues available for improvement of spoken English may result in termination of one's Teaching Assistantship if the problem of classroom comprehension continues.

4. The Department will support TAs pursuing a Master's degree for a maximum of 6 semesters and for those pursuing a PhD for a maximum of 10 semesters. The graduate committee takes these semesters of support under consideration from time to time and these limits are subject to change according to the consensus of the committee. One of the criteria on the time limits is the suitable progress of the graduate students and whether or not these limits are conducive or detrimental to timely completion of graduate degrees.

6.2   Renewal of Teaching Assistantship

It is important for a TA to realize that the renewal of a teaching assistant contract is not automatic. The three main criteria for renewing a teaching assistantship in the Department of Mathematics and Statistics are:

1. Steady progress toward an advanced degree in Mathematics or Statistics. Teaching assistants are expected to register for at least nine (9) credit hours each semester. These must be in classes directly related to the academic degree.
2. High quality teaching performance and the fulfillment of associated responsibilities.
3. MS or PhD qualifying exams should be passed after no more than four (4) semesters of support as a TA. This time period may be extended with Graduate Committee approval; however, these exams must be passed after a maximum six (6) semesters. If a TA fails any part of the Master's/PhD qualifying exam, the failed part(s) should be retaken and passed the next semester.

The Department has a limited number of Research Assistantships.

In addition, the University of New Mexico has a variety of financial support programs and fellowships, several of them for underrepresented groups. Information on additional sources of financial support is available from the Financial Aid Office or the OGS.