

# **NEW MEXICO DOCTORAL PROGRAM IN GEOGRAPHY HANDBOOK**

Academic Year 2024/2025

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## 1. Introduction

Welcome to the New Mexico Doctoral Program in Geography (NMDPG). The NMDPG offers a rigorous, research-based degree focusing on integrative human-environment interactions, including environmental change, dryland resource management, and complex cultural landscapes – and the methods needed to understand them. This program is unique because it is a consortium between two universities. This means that policies of UNM’S Office of Graduate Studies and NMSU’S Graduate School together establish the general requirements for the NMDPG, which also has program-specific requirements for all students. The joint doctoral program is designed to build both theoretical and applied knowledge in geography, which enables students to pursue a wide range of career pathways

The program builds on the strengths of the Department of Geography and Environmental Studies at New Mexico State University and the Department of Geography and Environmental Studies at the University of New Mexico. The two departments began their partnership in the late 2000s under the leadership of respective department chairs Dr. Paul Matthews (at UNM) and Dr. Christopher Brown (at NMSU). Successive Department Chairs Dr. Carol Campbell (NMSU), and Drs. Scott Freundsuh and Maria Lane (both at UNM) further developed the NMDPG. The program was approved by the Boards of Regents at both universities in 2018 and was then authorized by Governor Michelle Lujan Grisham in May 2019. The first cohort of the New Mexico Doctoral Program in Geography enrolled in Fall 2020.

Both campuses offer state-of-the-art technical facilities, faculty expertise across human and physical geographies and quantitative and qualitative methods, and easy access to distinctive geographic features ranging from wilderness areas to urban centers, and the Rocky Mountains to the Chihuahuan Desert. We hope you take advantage of the rich opportunities the NMDPG offers.

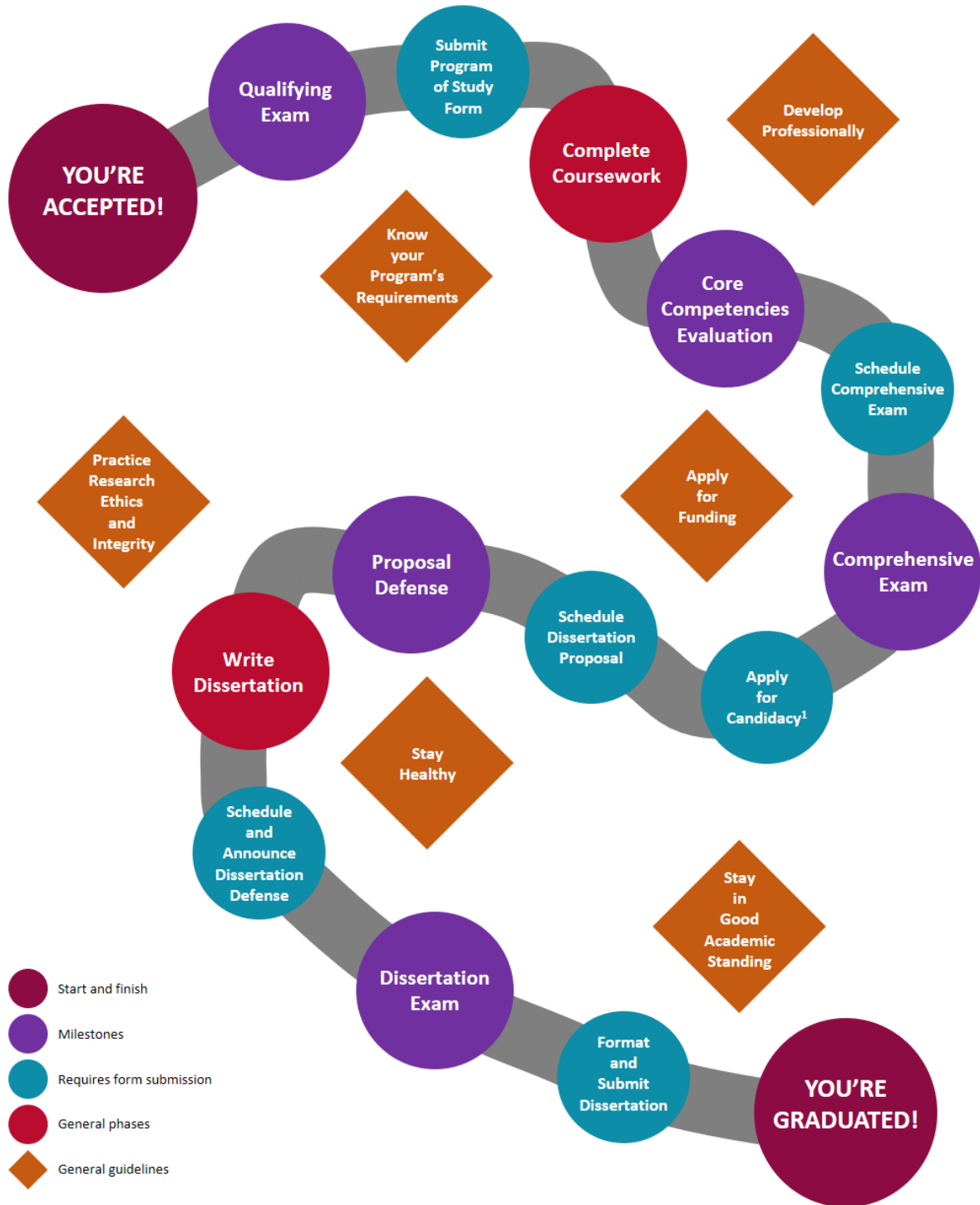
For some important links and Graduate Program Director contact information, see Table 1 below.

**Table 1: Resources at UNM and NMSU.**

UNM	NMSU
<a href="#">City of Albuquerque</a>	<a href="#">City of Las Cruces</a>
<a href="#">University of New Mexico</a>	<a href="#">New Mexico State University</a>
<a href="#">UNM Graduate Studies</a>	<a href="#">NMSU Graduate School</a>
<a href="#">Department of Geography and Environmental Studies</a>	<a href="#">Department of Geography and Environmental Studies</a>
<a href="#">DGES Faculty</a>	<a href="#">DGES Faculty</a>
Graduate Program Director: Dr. Marygold Walsh-Dilley Email: <a href="mailto:marygoldwd@unm.edu">marygoldwd@unm.edu</a> Bandelier East 108 Phone: 505-277-2170	Graduate Program Director: Dr. Eric Magrane Email: <a href="mailto:magrane@nmsu.edu">magrane@nmsu.edu</a> Breland Hall 145 Phone: 575-646-1819

## 2. Roadmap

### The Typical\* NEW MEXICO DOCTORAL PROGRAM IN GEOGRAPHY Degree Journey



<sup>1</sup> UNM students only; NMSU students are automatically advanced to candidacy after passing the comprehensive exam.

### 3. Timeline Planner

Specific timelines for degree completion will vary from student to student. However, for your reference and planning, two potential timelines are provided below.

**Table 2: Milestone timeline to finish in 4 years.**

Year 1	
Fall	<ul style="list-style-type: none"> <li>▪ Core course: GEOG 601</li> <li>▪ Elective coursework: 1-2 additional courses</li> <li>▪ Plan your course of study: 18 credits from master's + 30 additional credits that meet all grad school requirements and satisfy all 7 program competencies</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Core course: GEOG 602</li> <li>▪ Elective coursework: 1-2 additional courses</li> <li>▪ Submit Qualifying Exam Form, take Qualifying Exam*</li> </ul>
Year 2	
Fall	<ul style="list-style-type: none"> <li>▪ Elective coursework: 2-3 additional courses</li> <li>▪ Finalize your doctoral committee and submit CV of unapproved committee members to grad program office, if needed*</li> <li>▪ Schedule your first committee meeting</li> <li>▪ Apply for research funding</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Elective coursework: 2-3 total courses</li> <li>▪ Begin preparation for comprehensive exams</li> </ul>
Year 3	
Fall	<ul style="list-style-type: none"> <li>▪ Take GEOG 595 (NMSU) or GEOG 696 (UNM) to prepare for comps</li> <li>▪ Submit competency evaluation*</li> <li>▪ Schedule comprehensive exam*</li> <li>▪ Take comprehensive exam</li> <li>▪ Submit Application for Candidacy form (UNM) to advance to candidacy*</li> <li>▪ Submit research proposal to committee</li> <li>▪ Defend dissertation proposal</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Begin 18 dissertation credits for graduation</li> <li>▪ Complete a teaching assignment or schedule one for fall</li> </ul>
Year 4	
Fall	<ul style="list-style-type: none"> <li>▪ Register for dissertation credits</li> <li>▪ Committee meeting to gauge progress</li> <li>▪ Attend dissertation formatting workshop</li> <li>▪ Declare intent to graduate*</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Register for at least 3 dissertation credits</li> <li>▪ Submit schedule of examination form*</li> <li>▪ Defend dissertation</li> <li>▪ Submit completed and approved dissertation within 90 days of defense</li> <li>▪ Upload your dissertation to the digital repository (UNM)*</li> <li>▪ Deliver final document copy to grad program office and committee members</li> <li>▪ Submit certification of final form of dissertation (NMSU)*</li> <li>▪ Complete exit survey*</li> </ul>

\* Asterisks indicate that a form is required at either UNM or NMSU (see the section on "[Forms](#)" below). Consult with your advisor and your home institution graduate program director if you have questions specific to particular UNM or NMSU requirements.

**Table 3: Milestone timeline to finish in 5 years.**

<b>Year 1</b>	
Fall	<ul style="list-style-type: none"> <li>▪ Core course: GEOG 601</li> <li>▪ Elective coursework: 1 additional course</li> <li>▪ Plan your course of study: 18 credits from master's + 30 additional credits that meet all grad school requirements and satisfy all 7 program competencies</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Core course: GEOG 602</li> <li>▪ Elective coursework: 1 additional course</li> <li>▪ Submit Qualifying Exam Form, take qualifying exam*</li> </ul>
<b>Year 2</b>	
Fall	<ul style="list-style-type: none"> <li>▪ Elective coursework: 2 total courses</li> <li>▪ Finalize your doctoral committee and submit CV of unapproved committee members to grad program office, if needed*</li> <li>▪ Schedule your first committee meeting</li> <li>▪ Apply for research funding</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Elective coursework: 2 total courses</li> <li>▪ Apply for research funding</li> </ul>
<b>Year 3</b>	
Fall	<ul style="list-style-type: none"> <li>▪ Elective coursework: 2 total courses</li> <li>▪ Begin preparation for comps</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Take GEOG 595 (NMSU) or GEOG 696 (UNM) to prepare for comps</li> <li>▪ Submit competency evaluation*</li> <li>▪ Schedule comprehensive exam*</li> <li>▪ Take comprehensive exam</li> <li>▪ Advance to candidacy*</li> </ul>
<b>Year 4</b>	
Fall	<ul style="list-style-type: none"> <li>▪ Begin 18 dissertation credits for graduation</li> <li>▪ Submit research proposal to committee</li> <li>▪ Defend dissertation proposal</li> <li>▪ Complete a teaching assignment or schedule one for the coming year</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Register for dissertation credits</li> <li>▪ Committee meeting to gauge progress</li> </ul>
<b>Year 5</b>	
Fall	<ul style="list-style-type: none"> <li>▪ Register for dissertation credits</li> <li>▪ Attend dissertation formatting workshop</li> <li>▪ Declare intent to graduate</li> </ul>
Spring	<ul style="list-style-type: none"> <li>▪ Register for at least 3 dissertation credits</li> <li>▪ Announce final oral exam*</li> <li>▪ Defend dissertation</li> <li>▪ Submit completed and approved dissertation within 90 days of defense</li> <li>▪ Upload your dissertation*</li> <li>▪ Deliver final document copy to grad program office and committee members</li> <li>▪ Submit certification of final form of dissertation*</li> <li>▪ Complete exit survey*</li> </ul>

\* Asterisks indicate that a form is required at either UNM or NMSU (see the section on "[Forms](#)" below). Consult with your advisor and your home institution graduate program director if you have questions specific to particular UNM or NMSU requirements.

## 4. Policies

### 4.1 Credit Requirements

#### Overall Requirements

All students in the NMDPG must successfully complete required credits and milestones, as shown below. Each of the milestone requirements is addressed in separate sections of the NMDPG handbook.

- Credits: Core Courses (6), Elective Courses (42), Dissertation (18)
- Milestones: Qualifying Examination, Competency Requirement, Comprehensive Examination, Dissertation Proposal Defense, Final Oral Examination

#### Coursework Credit Requirements

All students must complete a minimum of 48 credits of coursework at the master's and/or doctoral levels, excluding dissertation credits.

#### General Requirements

- No more than 50% of course credits can be taken with a single faculty member.
- At least three hours of graduate credit must be taken in the semester in which the comprehensive examination is taken.
- Students must maintain a GPA >3.0 while enrolled in the program.
- No more than 6 credit hours of coursework can count toward the degree with the grade of C, C+, or CR. Courses offered only on a CR/NC basis and required by the graduate program are excluded from this limitation. [CR grades from Spring 2020 also do not count toward this limit.] No coursework with a grade lower than C can count toward the degree.

#### Core Courses

- 6 credits of core courses are required.

#### Elective Courses

42 credits of electives are required that meet all of the following criteria:

- At least 21 credit hours of graduate electives must be completed after the master's degree (i.e. no more than 18 credits can be transferred from a master's program).
- No more than 12 credits taken while in non-degree status may be counted.
- A minimum of 6 credits and a maximum of 15 credits of non-GEOG courses shall be counted toward the degree, including courses transferred from a master's program.
- At least 9 credit hours must be taken in courses numbered 500 or above.

#### Home-Campus vs Non-Home-Campus Credits

- At least 24 credit hours of coursework must be taken at the home university, excluding cross-enrollment credits. There is no limit to the number of courses that can be taken at the non-home campus, as long as all other requirements are met.

## Dissertation Credit Requirements

All students must complete at least 18 hours of dissertation credits (GEOG/GESP 699 at UNM, or GEOG/GESP 700 at NMSU) in addition to other coursework requirements. At least 1 hour of graduate credit must be taken in the semester in which the student completes degree requirements.

## Specific Coursework Requirements

**Table 4: Coursework requirements that apply to all students in the NMDPG.**

Type	Specific Courses	Credits	Notes
Core courses (6 credits) <sup>a</sup>	GEOG/GESP 601	3	Required during Semester 1
	GEOG/GESP 602	3	Required during Semester 2
Electives <sup>b</sup> (42 credits)	GEOG/GESP courses	24-33	Specific courses must be approved by the student's advisor on the Program of Study.
	Non-GEOG/GESP courses	6-15	Specific courses must be approved by the student's advisor on the Program of Study.
Dissertation (18 credits)	GEOG 699 or GESP 700 <sup>c</sup>	18	Up to 6 credit hours may be taken on the non-home campus.
<b>Total Credits</b>		<b>66<sup>d</sup></b>	

<sup>a</sup> Core courses must be completed with a grade of B or higher.

<sup>b</sup> Up to 18 credits transferred from the master's degree can be used to fill elective requirements.

<sup>c</sup> Dissertation credits may be taken only after successful advancement to candidacy. Dissertation credits at UNM are in the catalog as GEOG 699; at NMSU, these credits are GEOG 700. Dissertation hours are normally taken at the home university with the student's faculty advisor.

<sup>d</sup> A minimum of 24 credits (non-dissertation) must be taken at the home university. Courses taken through cross-enrollment are not home-campus credits. There is no limit on courses taken at the non-home university, as long as all other requirements are met.

## Waivers

Some requirements may be waived based on prior coursework or expertise. Students should consult their academic advisor to determine whether to petition for a waiver. Waiver requests should be made to the Graduate Program Director of the home institution, who will make decisions about waiver requests in consultation with the faculty. The Graduate Director will certify the waiver through an email memo returned to the student, their advisor, and the Graduate Coordinator (UNM). Students should keep this email/memo as documentation to submit with their Competency Evaluation form.

## 4.2 Competency Areas

Students who complete the program are expected to demonstrate broad knowledge within the discipline. They do this through the following seven core geographical competencies. They are expected to demonstrate these competencies through graduate-level coursework, but in some instances may demonstrate competency through previous professional work, research, or other activities (see Waivers above). The NMDPG maintains a list of courses at each institution that can be used to satisfy each competency (see Table 5 below). Students document their progress toward achieving competency at two points before advancing to candidacy: once during the Qualifying Exam and again before scheduling the Comprehensive exam.



### Core Program Competencies

1. Analyze and interpret spatiotemporal patterns and processes of human activity and organization with respect to their political, economic, cultural, social, and/or historical dimensions (Human Geography).
2. Analyze and interpret spatiotemporal patterns and processes of climate, biota, water, soil, and/or landforms (Physical Geography).
3. Analyze and interpret the social and biophysical processes that produce human-environment interactions, and make reasonable predictions about the impacts of changes in socio-ecological system components across space and through time (Socio-Ecological Systems).
4. Identify and describe geographic epistemologies, ontologies, and methodologies, and evaluate their suitability for answering different research questions (Geographic Theory and Methods).
5. Read, analyze, and interpret topographic and thematic maps (Map Use).
6. Create functional and aesthetically pleasing maps (Cartography).
7. Integrate spatial concepts, tools of representation, and reasoning processes to solve spatial problems (Spatial Thinking).

### Competency Plan

At the time of the Qualifying Examination, the student will identify competencies already acquired (e.g., during the first year of the NMDPG or in a master's program) and specify future coursework planned to achieve the remainder. The NMDPG Steering Committee will review the plan, providing feedback to the student about necessary adjustments.

### Competency Evaluation

Before the student is approved to schedule the Comprehensive Examination, they must submit a final list of courses or other activities that fulfills the seven competencies. Students must obtain approval of the Competency Evaluation from the grad director at the home institution before they will be approved to schedule their comprehensive examination.

### Courses For Meeting Competencies

Course offerings at UNM and NMSU change over time both within our geography programs and within our affiliated programs. However, for your reference and planning, we provide below a list of courses at UNM and NMSU you could complete to satisfy each of the program competency areas. Other courses may qualify as well; discuss any questions with your advisor in preparation for your Qualifying Exam. Note that courses for the Qualifying Exam should be NMDPG courses; however, in some cases classes from a Master's degree at another institution could count if student provides the course's syllabus and an explanation of how it satisfies the competency.

**Table 5: Courses and competency areas at UNM.**

Course prefix, number, and name	Competency Area <sup>1</sup>						
	1	2	3	4	5	6	7
GEOG *450. Hazards and Disasters <sup>2</sup>		X					
GEOG *421L. Cartography <sup>3</sup>					X	X	X
GEOG *499 Topics in Geography – may satisfy select competencies; check with Grad Director							
GEOG 514. Human Dimensions of Climate Change <sup>4</sup>			X				
GEOG 515. Seminar in Geographies of Power	X			X			
GEOG 516. Seminar: Globalization and Development	X			X			
GEOG 518. Political Ecology			X	X			
GEOG 522. Intro to Spatial Data Management					X		
GEOG 523. Environmental Systems Modeling <sup>5</sup>			X				X
GEOG 524. Advanced Remote Sensing Seminar <sup>6</sup>				X	X		X
GEOG 525. Advanced GIScience Seminar				X			X
GEOG 526. Critical Cartography <sup>7</sup>						X	
GEOG 527. Introductory Programming for GIS					X		X
GEOG 528. Open Source GIS Programming <sup>8</sup>					X		X
GEOG 540. Race and Geography <sup>9</sup>	X						
GEOG 541. Environmental Management <sup>10</sup>			X				
GEOG 542. Water Governance <sup>10</sup>			X				
GEOG 543. Public Lands <sup>11</sup>			X				
GEOG 547. Governing the Global Environment <sup>12</sup>			X				
GEOG 551. Drylands		X					
GEOG 557. Environmental Security: Energy <sup>13</sup>			X				
GEOG 558. Environmental Security: Food & Water <sup>14</sup>	X		X				
GEOG 569. Peoples & Environments of Latin America	X						
GEOG 564. Food, Environment, and Society	X		X				
GEOG 566. The City	X						X
GEOG 575. Geography of New Mexico and the Southwest <sup>15</sup>	X						
GEOG 580L. Spatial Statistics				X			X
GEOG 581L. Intro GIS for Grad Students				X	X		X
GEOG 583L. Intro to Remote Sensing				X	X		X
GEOG 584L. Applications of Remote Sensing					X		X
GEOG 585L. Interactive Web Mapping					X	X	X
GEOG 586L. Applied GIS and Spatial Analysis					X		X
GEOG 587L. Geocomputation and Spatial Modeling					X		X
GEOG 588L. GIS Concepts and Techniques					X		X
GEOG 589. Qualitative Methods <sup>16</sup>				X			
GEOG 601. Intro to Geographic Theory				X			
GEOG 602. Integrative Research Design				X			
CRP 516. Watersheds		X					
CE 541. Hydrogeology		X					
CE 542. Intermed Hydrology		X					
CE 545. Open Channel Hydrology		X					
CE 547. GIS Water Resources		X					

CE 549. Vadose Zone Hydrology		X
CE 565. Soil Behavior		X
EPS 510. Fundamentals of Geochemistry		X
EPS 555L. Computational and GIS Applications in Geomorphology		X
EPS 562. Hydrogeology		X
EPS 581L. Geomorphology and Surficial Geology		X
EPS 536. Climate Dynamics		X
BIOL 505. Ecosystem Dynamics		X
BIOL 516. Basic Graduate Ecology		X
BIOL 575. Community Ecology		X
ECON 540. Natural Resource Modeling I		X
ECON 542. Topics in Enviro, Resource, Ecol Economics	X	X
ECON 543. Natural Resource Modeling II		X
WR 571. Water Resource I Issues		X
WR 572. Water Resource II Modeling		X

<sup>1</sup> Human geography = 1, physical geography = 2, social-ecological systems = 3, Geographic Theory and Methods = 4, map use =5, cartography = 6, spatial thinking = 7. For additional details, see [Core Program Competencies](#) above.

<sup>2</sup> previously GEOG \*450 Environmental Hazards, <sup>3</sup> previously GEOG \*481L Map Design and Geovisualization, 4 previously GEOG 514 Natural Resource Management Seminar, 5 previously GEOG 523 Environmental Systems Modeling, 6 previously GEOG 524 Advanced Topics in Remote Sensing, 7 previously GEOG 513 Critical Cartography, 8 previously GEOG 528 Advanced Programming for GIS, 9 previously GEOG 540 Geography of Bodies, 10 previously GEOG 561 Environmental Management, 11 previously GEOG 563 Public Land Management, 12 previously GEOG 567 Governing the Global Environment, 13 previously GEOG 570 Environmental Security: Energy, 14 previously GEOG572 Environmental Security: Food & Water, 15 previously GEOG 445 Geog of NM & SW, 16 previously GEOG590 Qualitative Methods

**Table 6: Courses and competency areas at NMSU.**

Course prefix, number, and name	Competency Area <sup>1</sup>						
	1	2	3	4	5	6	7
GEOG 472. Soil Morphology and Classification		X					
GEOG 491. Special Topics – may satisfy select competencies; check with Grad Director							
GEOG 491. Special Topics: Critical Approaches to Place	X						
GEOG 512. Geohumanities	X						
GEOG 493. Special Problem Research							
GEOG 526. U.S. National Parks			X				
GEOG 535. Planning for a Sustainable World			X				
GEOG 542. Programming for GIS					X		X
GEOG 552. Landscape Ecology		X					
GEOG 553. Geomorphology		X					
GEOG 555. Southwest Environments			X				
GEOG 556. Weather & Climate: Earth’s Dynamic Atmosphere Explored	X						
GEOG 557. Fundamentals of Biogeography	X						
GEOG 571. Cartography and Geographic Information Systems					X	X	X
GEOG 573. Introduction to Remote Sensing				X	X		X
GEOG 578. Fundamentals of Geographic Information Science				X	X		X
GEOG 581. System Design for Geographic Information Science					X		X
GEOG 582. Advanced Remote Sensing					X		X
GEOG 583. Field Explorations in Geography			X		X		X

GEOG 584. Critical Methodologies		X			
GEOG 585. Spatial Analysis and Modeling			X	X	X
GEOG 588. GIS and Water Resources				X	X
GEOG 595. Directed Readings					
GEOG 598. Special Topics. – may satisfy select competencies; check with Grad Director					
GEOG 601. Geographic Theory & Application			X		
GEOG 602. Integrative Research Design			X		
GEOG 603. Professional Geographic Practice – may satisfy select competencies; check with Grad Director					
<hr/>					
ANTH 516. Advanced Archaeology of the American Southwest	X				
ANTH 551. Advanced Indigenous Peoples History of the United States	X				
BIOL 536. Advanced Disease Vector Biology		X			
BIOL 568. Communities and Ecosystems		X			
ENVS 470. Envir. Impacts of Land Use and Contaminant Remediation			X		
ENVS 605. Arid Land Water Resources			X		
FWCE 537. Wildlife Damage Management			X	X	X
FWCE 540. Wildlife Habitat Relationships		X			
HIST 511. Making the American West	X				
HIST 575. History of the Global Political Economy	X				
PHIL 505. Advanced Studies in Philosophy and Literature	X				
PHIL 532. Advance Studies in Ethics and Global Poverty	X				
POLS 536. Public Policy and Indigenous Communities	X				
POLS 569. Advanced Issues in Globalization	X				
RGSC 513. Advanced Rangeland Ecology		X			
RGSC 575. Climate Studies, Water and Society			X		

<sup>1</sup> Human geography = 1, physical geography = 2, social-ecological systems = 3, Geographic Theory and Methods = 4, map use =5, cartography = 6, spatial thinking = 7. For additional details, see [Core Program Competencies](#) above.

### 4.3 Doctoral Committee

Each student will assemble a four-person Doctoral Committee to oversee the student's Comprehensive Examination and dissertation research (including the Dissertation Proposal Defense, Dissertation, and Final Oral Examination), under the direction of the student's faculty advisor.

#### Composition

The Doctoral Committee must include their faculty advisor and at least one other geography faculty member from the home campus. A committee member from the geography faculty of the non-home department is strongly recommended, but not required. The home-campus Graduate Program Director must approve the Doctoral Committee, in compliance with any general campus requirements at the home university. Membership on the Committee of Study can be changed following the general guidelines of the home university.

## Role and Responsibility

A student's Doctoral Committee shall fulfill the roles defined in the NMSU catalog for the "Doctoral Graduate Committee", and in the UNM catalog for the "Doctoral Committee on Studies", "Comprehensive Examination Committee", "Dissertation Committee", and "Final Examination Committee." At minimum, committee members will:

- Support the student in the development of their research and dissertation.
- Contribute questions for the Comprehensive Exam, attend the oral portion of the Comprehensive Exam, and provide feedback on the Comprehensive Exam responses.
- Provide feedback on the dissertation proposal and attend the Dissertation Proposal Defense.
- Read the final draft of the dissertation and attend the Final Oral Examination.

## 4.4 Qualifying Exam

Students must complete the Qualifying Examination, which assesses professional readiness for advancement in the Ph.D. program. This involves the completion of the Qualifying Examination document (see below) and an oral examination with the NMDPG Steering Committee. The oral exam will be scheduled at the end of the Spring semester of the first year in the program.

### Format

Due two weeks prior to the scheduled oral exam, the qualifying exam form prompts students to record:

1. Proposed Doctoral Committee members, checking that the proposed committee satisfies the committee service guidelines and requirements from the home university.
2. A completed competency plan that lists completed or intended graduate-level courses, or proposed alternatives for each of the program's seven areas of competency.
3. A minimum of two proposed areas of mastery that the student seeks to develop during their NMDPG study, on which the comprehensive exam will focus.
4. An extended abstract (500-1000 words) of an intended area of research for the dissertation project.

The student must collaborate with their faculty advisor to complete items 1, 2, and 3, while the extended abstract (item 4 above) should be the student's independent work.

The NMDPG Steering Committee will assess the student's readiness to pursue the intended area of research by evaluating the extended abstract and will determine whether the competency plan is sufficient to satisfy the core competency requirement. The Steering Committee will provide feedback and guidance to the student on coursework or other preparations that may improve the student's capabilities in the intended research focus.

### Outcomes

Based on the result of the Qualifying Examination, the NMDPG will take one or more of the following actions:

- Approve the student for further work toward the doctorate.

- Recommend a revision and re-evaluation of the student's Qualifying Exam.
- Recommend a discontinuation of graduate work.

In all cases where the student is recommended to continue in the program, the Qualifying Examination paperwork will also be filed internally with the NMDPG Steering Committee. The list of courses intended to satisfy the competency requirement will be revised and resubmitted in the Competency Evaluation Form, and must be approved by the Graduate Director of the home institution before Comprehensive Exams may be scheduled.

### **Scheduling**

The NMDPG schedules oral Qualifying Exams at the end of the Spring semester of the first year of study. Students should complete the Qualifying Exam by the end of Semester 2.

### **Competency Evaluation**

After courses are completed, and in advance of the Comprehensive Examination, NMDPG students must complete and submit the Competency Evaluation Form to the Grad Director of the home institution. This form should be accompanied by any memos approving waivers, which need to be completed if competencies are satisfied with activities beyond the courses listed in Tables 5 and 6, above. The Grad Director will review the form to certify that the competencies have been achieved. The competency evaluation must be completed before the Comprehensive Exam can be scheduled.

## **4.5 Comprehensive Exam**

By the end of Semester 6, each student should complete the Comprehensive Examination, which assesses mastery of knowledge in a minimum of two broad areas of geographical competency. Each student takes an individualized exam that focuses on specific subdisciplinary content relevant to the student's research, training, and professional goals. The Comprehensive Examination is conducted by the student's Doctoral Committee, under the direction of the student's faculty advisor. Each student should work with their Doctoral Committee to define the topical areas to be examined, develop a list of readings, and identify other activities that should be completed to prepare for the Comprehensive Examination. Students are advised, though not required, to enroll in "GEOG 595 Directed Readings" (at NMSU) or "GEOG 696 Supervised Research" (at UNM) during the semester in which they intend to take the Comprehensive Examination. Each student should refer to the requirements of the home institution to verify eligibility to take the Comprehensive Exam.

### **Format**

The Comprehensive Exam contains both written and oral components. It begins with a written examination taken over four days. Each member of the Doctoral Committee is responsible for the format and content of one day's question(s). In the event the student has chosen a Doctoral Committee with more than four members, the student's faculty advisor will determine how to apportion the committee members' questions across the four days. The faculty advisor will make each day's question(s) available to the student at 8:00 am, and the completed answer(s)

will be due back to the advisor no later than 5:00 pm. Once the examination is complete, each Committee member will assess and provide detailed feedback on the answer(s) to the question(s) they assigned. Each Committee member will also review the remainder of the written answers.

After the completion of the written portion of the Comprehensive Exam, the Doctoral Committee will convene to conduct an oral examination. In general, the oral examination should take place no more than two weeks after the written examination is completed, and it is customary for only Committee members to attend. The oral examination should be based on follow-up questions stemming from the student's answers to the written exam. It does not require a presentation by the student and should not introduce new topics.

### **Outcomes**

Based on the results of the written and oral examination components, the Doctoral Committee will determine whether the student has passed, conditionally passed, or failed the examination. Students who pass the Comprehensive Examination may advance to candidacy. Students who pass conditionally will receive a detailed set of conditions from the Committee and must satisfy those conditions by the end of the subsequent term. If a student fails the Comprehensive Examination, the Committee of Study may recommend a second examination, which must be administered after at least one semester has passed, but no longer than one calendar year from the date of the first examination. The doctoral Comprehensive Examination may be taken only twice. A second failure results in the student's termination from the program.

### **Scheduling**

Usually, students will complete the Comprehensive Examination before the Dissertation Proposal, but this is not required.

## **4.6 Advancement to Candidacy**

A student may advance to doctoral candidacy after:

1. completing all coursework required to satisfy NMDPG competency area requirements;
2. passing the Comprehensive Examination;
3. completing all required program coursework, as confirmed by the Graduate School at the home institution; and
4. receiving approval from the Doctoral Committee.

Before scheduling the Comprehensive Examination, students must complete all competency requirements and gain approval from the Graduate Program Director at the home institution. After passing the Comprehensive Examination, students will advance to candidacy following the specific requirements and procedures specified by the Graduate School at their home institution. (For NMSU students, advancement to candidacy is automatic. UNM students will follow a filing process.) After advancement to candidacy, the student must meet the residency and minimum enrollment requirements specified by the Graduate School at their home institution.

## 4.7 Proposal Defense

By the end of Semester 8, the student should complete the Dissertation Proposal Defense, which assesses the soundness of the proposed research design, the student's readiness to undertake the project, and the student's expertise in research areas required to complete the dissertation. The student should circulate the written dissertation proposal to all members of the Doctoral Committee at least 10 days before the scheduled defense.

### Format

The Dissertation Proposal Defense is an oral examination with both public and non-public components. The student's presentation is public with a portion for audience questions. Following that, the Doctoral Committee has a private questioning of the candidate, followed by a deliberation closed to the student.

### Outcomes

Based on the result of the Dissertation Proposal Defense, the Doctoral Committee will take one of the following actions:

- Approve the student to undertake the dissertation as proposed.
- Recommend a revision of the written proposal before undertaking dissertation research.
- Recommend a revision of the written proposal, with subsequent oral re-evaluation, before undertaking dissertation research.
- Recommend a discontinuation of graduate work.

The results of the Proposal Defense will be recorded on the Proposal Defense Form and filed with the Graduate Director / Coordinator.

### Scheduling

Usually, students will undertake the Dissertation Proposal Defense after having completed the Comprehensive Examination, but this is not required. The Dissertation Proposal Defense is not a pre-requisite for advancement to candidacy, so the student and advisor have flexibility in its scheduling. It should be done at the earliest opportunity, however, to ensure that the student receives clear feedback from the Doctoral Committee about the direction and significance of the proposed dissertation research design. At minimum, the Dissertation Proposal Defense must be held no more than one year after the completion of the Comprehensive Exam and at least two semesters before the intended Final Oral Examination (dissertation defense).

## 4.8 Dissertation

Every student must complete a dissertation that presents the results of original investigations of a significant problem. The dissertation should display a mastery of the literature of the subject field, be methodologically sound, present an organized and coherent development of ideas with a clear exposition of results, and provide a critique of the limits and validity of the student's conclusions. At a minimum, the dissertation should provide the basis for publishable contributions to the research literature in the student's field.



**Format**

The NMDPG accepts both traditional and non-traditional (hybrid) dissertations. A traditional dissertation is a single written document, authored solely by the student, and formatted as a monograph with multiple chapters. A non-traditional (hybrid) dissertation consists of an introduction, a minimum of three related first-author articles prepared and/or submitted for publication (or already published), and a conclusion. The student, in consultation with their Doctoral Committee, must decide which format is appropriate. In either case, the dissertation must be substantially and primarily the student's original work. A contributions statement must be included in each paper to clarify research and authorship roles.

**Completion**

After the written dissertation is submitted to the student's Doctoral Committee, it must be orally defended in a public presentation that constitutes the final examination for completion of the degree. Refer to the section on "Final Oral Exam" for requirements.

**4.9 Final Oral Exam (Dissertation Defense)**

No later than 5 years after completion of the Comprehensive Examination, each student must complete and pass the Final Oral Examination (Dissertation Defense), through which the Doctoral Committee assesses both 1) the soundness and intellectual merit of the completed research project, and 2) the student's understanding of the project's results and significance within relevant academic fields. The student should circulate the final draft of the dissertation to all members of the Committee on Studies at least two weeks before the scheduled defense.

**Format**

The Final Oral Examination has both public and closed portions. The student's presentation is public with a portion for audience questions. Following that, the Doctoral Committee has a private questioning of the candidate, followed by a deliberation closed to the student.

**Outcomes**

At the conclusion of the examination, the Doctoral Committee members confer and make one of the following recommendations:

- That the dissertation be approved without change;
- That the dissertation be approved subject only to minor editorial corrections: or
- That the dissertation be rewritten or revised before approval.

The committee may also assign the grade of "Conditional Pass" and require that the student meet additional conditions before a grade of "pass" is awarded.

The results of the examination will be reported to the Graduate School at the home institution, and the student will format and submit the final version of the dissertation in accordance with the specific requirements of the home institution.

## 5. Required Forms and Documents

Table 7: Guide to required forms and documents.

Student-Initiated Forms and Required Documents	Submit To:			Signatures Required
	UNM GS	NMSU GS	NMDGP	
<b>Qualifying Exam</b>				
Tentative Committee			✓	Student, NMDPG Steering Committee
Competency Plan			✓	Student, NMDPG Steering Committee
Mastery Areas			✓	Student, NMDPG Steering Committee
Extended Abstract			✓	Student, NMDPG Steering Committee
<b>Competency Areas</b>				
Competency Evaluation			✓	Student, NMDPG Graduate Director of home institution
<b>Program of Study and Committee</b>				
Program of Study and Committee		✓		Student, Major Advisor, Minor Faculty, Department Head, Academic College Dean, Graduate School
Declaration of Committee, CV for any new members	✓			Student, All Doctoral Committee Members
<b>Comprehensive Exam</b>				
Announcement of Exam	✓			N/A; Submit to Graduate Program
Doctorate of Philosophy Examination Form		✓		Student, Major Advisor, Minor Faculty, Department Head, Graduate School
<b>Advancement to Candidacy</b>				
Candidacy Application	✓			Student, Major Advisor
<b>Dissertation</b>				
Announce Proposal Defense			✓	Student, Major Advisor
Proposal Form			✓	Student, All Doctoral Committee Members
Doctorate of Philosophy Examination Form		✓		Student, Major Advisor, Minor Faculty, Department Head, Graduate School
Announce Final Oral Exam (Dissertation Defense)	✓			N/A
Dissertation Manuscript	✓			N/A
Dissertation Title Submission Form		✓		N/A
Certification of Final Form	✓			Student, Major Advisor
<b>Graduation</b>				
Intent to Graduate			✓	Student, major advisor
Exit Survey			✓	No signatures needed