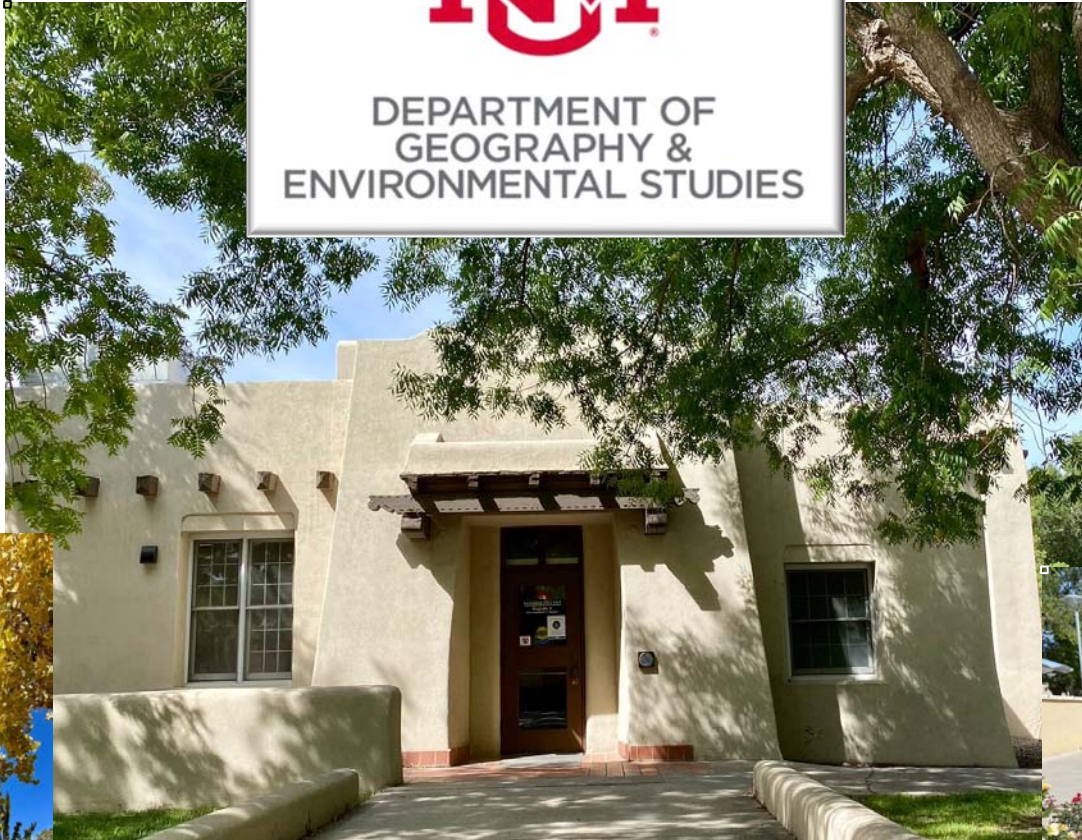




DEPARTMENT OF
GEOGRAPHY &
ENVIRONMENTAL STUDIES



Geography & Environmental Studies
Undergraduate Programs

<https://geography.unm.edu/>

Geography & Environmental Studies (GES) Undergraduate Programs

Geography focuses on physical and human landscapes, spatial analysis, and environmental and social processes. Geographers address challenging questions that concern human-environment interactions, climate change, globalization, and sustainable development.



Our Geography Majors learn geographic techniques, skills, and concepts. Graduates of our program can analyze geographic information, interpret spatial data, and communicate information verbally and graphically.

Here's why a Geography degree might be suitable for you:



- Upper division classes are designed to allow majors to interact with each other and with the faculty.
- Many classes are centered around field experiences.
- The Spatial Computing Lab offers a complete suite of image processing (ENVI, Terrset) and GIS (ArcGIS) software and statistical packages for coursework and research.
- Study abroad in places like Ecuador and Brazil to learn about place, local issues in sustainability, and human-environment interactions.



Lobo Community Garden
Sustainability Studies



Course-based undergraduate
research opportunities



Petroglyph National Monument
field trip

Field-based learning experiences



Field Methods in Geography



Acequia field trip



Jackpile-Paguate Uranium Mine visit,
R.H. Mallory Center for
Community Geography

Career Opportunities

Professional Geographers have a wide range of [Career](#) possibilities understanding social systems, improving the environment, and enhancing financial performance:

- Planning
- Tourism
- GIS
- Cartography
- Environmental Management
- Public Health
- Government
- Sustainability
- Emergency Management
- Education

[U.S. Bureau of Labor Statistics: Geoscientists](#)

2023 Median Pay	\$92,580 per year \$44.51 per hour
Typical Entry-Level Education	Bachelor's degree
Number of Jobs, 2023	26,300
Job Outlook, 2023-33	5% (Faster than average)

[U.S. Bureau of Labor Statistics: Geographers](#)

2023 Median Pay	\$90,880 per year \$43.69 per hour
Typical Entry-Level Education	Bachelor's degree
Number of Jobs, 2023	1,600
Job Outlook, 2023-33	3% (As fast as average)

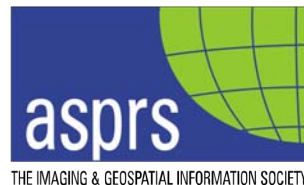
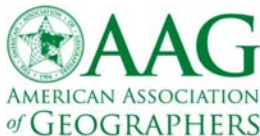
[Geographers Make Great Salaries!](#)

The median annual wage for **Geoscientists** was **\$92,580** (2023)

The median annual wage for **Geographers** was **\$90,880** (2023)

Opportunities to engage with students & faculty

- Social Activities (potlucks, hikes, camping trips)
- Academic activities (a colloquium series, attending geography conferences ([AAG](#), [ESRI UC](#), and [ASPRS](#)))
- Service-oriented Activities (trail clean-up, climate change awareness)
- Student Association of Geography & Environmental Studies ([SAGES](#) on Twitter/X)
- UNM Chapter of [ASPRS](#)
- GES [Instagram](#) & [Facebook](#) pages
- [Gamma Theta Upsilon](#) (International Geographical Honorary Society)



Here's why a Geography degree might be suitable for you:

It is a flexible major, allowing students to develop:

- **Breadth in the B.A. in Geography:**
coursework across all areas
or
- **Depth in the B.S. in Geography** with an emphasis in *Human Geography, Natural Resources, or GIScience*
- Geography coursework meets [General Education requirements](#) in Communication, Physical and Natural Science, Social and Behavioral Sciences, Humanities, and Global Diversity and Inclusion
- Geography Majors fulfill Department, College, and University requirements simultaneously.



Bachelor's Degrees

Bachelor of Arts in Geography

The BA degree is designed to allow students to sample broadly across topics and methodological approaches of geography, and to explore their integration. *Also offered as a 2nd Major BA.*

Bachelor of Science in Geography

The B.S. Program provides students with depth in theoretical approaches and methods in three emphases:

Human Geography, Natural Resources, and GIScience



Geography BA/BS Major Requirements

BA Geography	BS Geography
Required Courses <ul style="list-style-type: none">• GEOG 1115/1115L: Maps & GIScience/Lab• GEOG 1160/1160L: Home Planet/Lab• GEOG 1165: People & Place• GEOG 381L: Intro to GIScience• GEOG 419: Geography Careers	Required Courses <ul style="list-style-type: none">• GEOG 1115/1115L: Maps & GIScience/Lab• GEOG 1150: Intro to Environmental Studies• GEOG 1160/1160L: Home Planet/Lab• GEOG 1165: People & Place• GEOG 1175: World Regional Geography• GEOG 381L: Intro to GIScience• GEOG 419: Geography Careers
Elective Courses <p>Six elective courses (two from each group): <i>Human Geography, Natural Resources,</i> and <i>GIScience</i> *at least one upper division course</p>	Elective Courses <p>Four upper division courses from any one group: <i>Human Geography, Natural Resources,</i> or <i>GIScience</i></p>
Grand Total Credits 34-36	Grand Total Credits: 34 - 37

Geography 2nd Major BA Requirements

2nd Major BA Geography

Required Courses

Complete all of the following:

- GEOG 1115: Maps & GIScience
- GEOG 1160: Home Planet
- GEOG 381L: Intro to GIScience

Complete at least 1 of the following:

- GEOG 1165: People & Place
- GEOG 1175: World Regional Geography

Elective Courses (15 credits)

Five upper-division courses, at least one from each of the three groups ***Human Geography***, ***Natural Resources***, and ***GIScience***.

*One course may be replaced with GEOG 499, with department approval.

Grand Total Credits 28

Geography Minor Degrees

Minor degrees are open to all UNM Undergraduates. Geography Majors cannot pursue the Minor in Geography or GIScience, but can select to Minor in Sustainability Studies.

The **Minor in Geography** enables students to integrate spatial thinking and spatial analysis into any major field of study. An ideal complement for students who are interested in pursuing career pathways in the humanities, biological science, resource management, urban studies, and environmental science.

The **Minor in Geographic Information Sciences** is designed for students to complement their major with knowledge of mapping, GIS, and geospatial technologies. The curriculum includes the theory and foundations of GIScience and the use of geospatial technologies for acquiring, creating, mapping, and analyzing geographic information.

The **Minor in Sustainability Studies** integrates knowledge and methodologies from the Sciences, Humanities, and Arts to provide a unique educational experience that can be applied to the design, selection, and implementation of sustainable policies, practices, technologies, and strategies. More info here: [Sustainability Studies Program website](#)

GES Minor Degrees

Minor in Geography

Required Courses:

- GEOG 1115: Maps & GIScience (3)
- GEOG 1160: Home Planet (3)

Complete at least 2 of the following:

- GEOG 1115L: Maps & GIScience Lab (1)
- GEOG 1160L: Home Planet Lab (1)
- GEOG 1175: World Regional Geography (3)

Complete at least 1 of the following:

- GEOG381L - Intro to Geographic Information Systems (4)
- GEOG421L - Cartography (4)
- GEOG483L - Remote Sensing Fundamentals (4)

Elective Courses: (6-8 credits):

Two upper-division Geography courses.

Grand Total Credits: 20 - 22

Minor in GIScience

Required Courses:

- GEOG 1115: Maps & GIScience (3)
- GEOG 1115L: Maps & GIScience Lab (1)
- GEOG 2115: Information Design in Science & Society
- GEOG381L - Intro to Geographic Information Systems (4)

Elective Courses: (9-12 credits):

Three courses from the GIScience Elective Group

Grand Total Credits: 20 - 22

GES Minor Degrees

Minor in Sustainability Studies

Required Courses:

SUST 1134. Introduction to Sustainability Studies (3)

Complete at 1 of the following:

SUST 334: Environmental Justice Practicum (3)

SUST 364: Local Food Systems Practicum (3)

SUST 384 Heritage Farming Practicum (3)

Complete both of the following:

SUST 434: Synthesis of Sustainability Perspectives and Innovations (3)

SUST 499: Sustainability Independent Capstone Project* (3)

Elective Courses: (9 credits):

Select (1) elective from each of the following areas:

- Environmental Health
- Social Equity
- Economic Vitality, Politics, & Policy

Grand Total Credits: 21

Human Geography Classes

Human Geography courses are focused on how people and place, space and the environment shape each other. Topics in Human geography classes include Economics, Politics, Culture, History, Urban studies, Political ecology, Feminist geographies, Post-colonialism, and more.

Human Geography Courses

- GEOG 1165 - People & Place (*required for BA & BS*)
- GEOG 1175 - World Regional Geography (*required for BS*)
- GEOG 1970 - World of Beer
- GEOG 1996 – Topics: Latin America Today
- GEOG 2996 - Topics: Geology, Society, & Justice
- GEOG 360 - Land Use Management
- GEOG 361 - The Global Countryside
- GEOG 364 - Law, Place and Space
- GEOG 369 - Latin American Culture & Society
- GEOG 440 – Race and Geography
- GEOG 444 - Interdisciplinary Museum Science
- GEOG 464 - Food, Environment, & Society
- GEOG 466 - The City
- GEOG 469 - Environments and Peoples in Latin America
- GEOG 475 - Geography of New Mexico and the Southwest
- GEOG 476 - Field Experience Abroad
- GEOG 499 – Multiple sections offered; consult Class Schedule

Natural Resources Classes

Natural Resources courses are focused on ecological and earth surface processes and the ways in which natural resources are managed. Courses explore the ways experts are maintaining the integrity of natural systems and providing goods and services to society.

Natural Resources Courses

- GEOG 1150 - Introduction to Environmental Studies
- GEOG 1160/1160L - Home Planet: Land, Water, Life/Lab (*required for BA & BS*)
- GEOG 2170 - Energy, Environment and Society
- GEOG 352 - Global Climate Change
- GEOG 355 - Nature and Society
- GEOG 441 - Environmental Management
- GEOG 442 - Water Governance
- GEOG 443 - Public Lands
- GEOG 447 - Governing the Global Environment
- GEOG 450 - Hazards and Disasters
- GEOG 457 - Environmental Security: Energy
- GEOG 458 - Environmental Security: Food & Water
- GEOG 499 – Multiple sections offered, consult Class Schedule

GIScience Classes

GIScience courses are focused on spatial analysis to examine economic, environmental, physical, and social phenomena. Courses in GIScience enable students to develop capability in spatial thinking and gather in-depth knowledge in geospatial technology.

GIScience Courses

- GEOG 1115/1115L - Maps & GIScience/Lab (*required BA & BS*)
- GEOG 2115 - Information Design for Science and Society
- GEOG 320 - Field Methods in Geography
- GEOG 380L - Basic Statistics for Geographers
- GEOG 381L - Introduction to Geographic Information Science (*required BA & BS*)
- GEOG 389 - Qualitative Methods for Geographers
- GEOG 421L Cartography
- GEOG 423 - Environmental Systems Modeling
- GEOG 426 - Critical Cartography
- GEOG 427 - Introductory Programming for GIS
- GEOG 428 - Open-Source Programming for GIS
- GEOG 483L - Remote Sensing Fundamentals
- GEOG 484L - Applications of Remote Sensing
- GEOG 485L - Interactive Web Mapping
- GEOG 487L - Geocomputation and Spatial Modeling
- GEOG 488 – Applications of GIS
- GEOG 499 – Multiple sections, consult Class Schedule

Sustainability Classes

Sustainability courses are focused surrounding the student with colleagues, mentors, and peers who understand and practice sustainability; providing access to thriving examples of sustainable communities on and off campus; and facilitating the integration of theory and practice through service learning, research, and outreach projects.

Sustainability Courses

SUST 1134 - Introduction to Sustainability Studies

SUST 334 - Enviro Justice Practicum

SUST 364 - Food Systems Practicum

SUST 402 - Multiple Sections offered

SUST 410 - Lobo Gardens

SUST 434 - Synthesis of Sustainability Perspectives and Innovations

SUST 499 - Sustainability Independent Capstone Project as Research or Creative Expression

Complete your GenEd requirements (mostly) in Geography!

UNM undergraduates must take one or more courses in each of the nine areas of study of the General Education curriculum. **Geography courses fulfill the requirement in five of these areas.**

AREA 1: COMMUNICATION (6 CREDITS REQUIRED)

GEOG 2115: Information Design for Science and Society (3)

AREA 3: PHYSICAL AND NATURAL SCIENCES (4 CREDITS REQUIRED)

GEOG 1160: Home Planet: Land, Water, Life (3)

GEOG 1160L: Home Planet Lab (1)

AREA 4: SOCIAL AND BEHAVIORAL SCIENCES (3 CREDITS REQUIRED)

GEOG 1165: People and Place (3)

GEOG 2170: Energy, Environment, & Society (3)

AREA 5: HUMANITIES (3 CREDITS REQUIRED)

GEOG 1175: World Regional Geography (3)

U.S. GLOBAL DIVERSITY AND INCLUSION (3 CREDITS REQUIRED)

GEOG 1175: World Regional Geography (3)

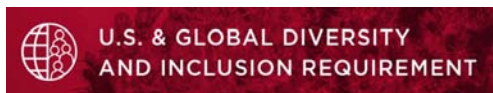
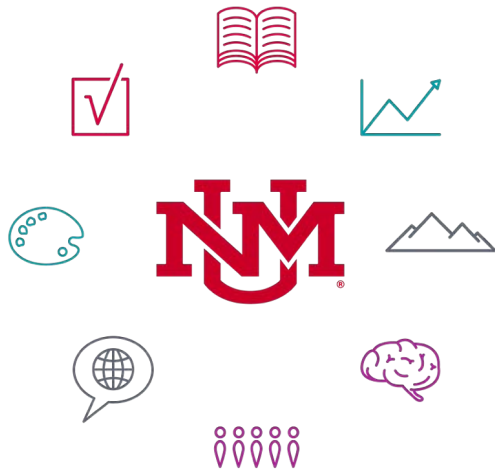
GEOG 364: Law, Place, and Space (3)

GEOG 466: The City (3)

GEOG 468: Geographies of Race (3)

GEOG 464: Food, Environment, and Society (3)

GEOG 475: Geography of New Mexico and the Southwest (3)





□

Geography & Environmental Studies *Faculty*

Human Geography Faculty



Ronda Brulotte



Natasha Howard



Chris Duvall



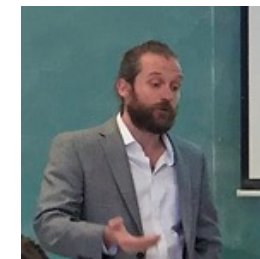
Maria Lane



Miriam Gay-Antaki



MaryGold Walsh-Dilley



Ben Warner

[Faculty Profiles](#)

Natural Resources Faculty



Chris Duvall



Cait Lippitt



Costa Hadrilambrinos

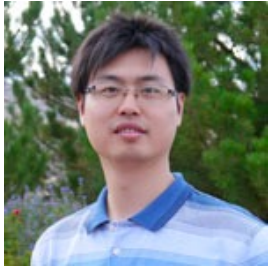


Mel Morgan



Yolanda Lin

GIScience Faculty



Xi Gong



Yan Lin



Yolanda Lin



Cait Lippitt



Chris Lippitt



Liping Yang

Sustainability Faculty

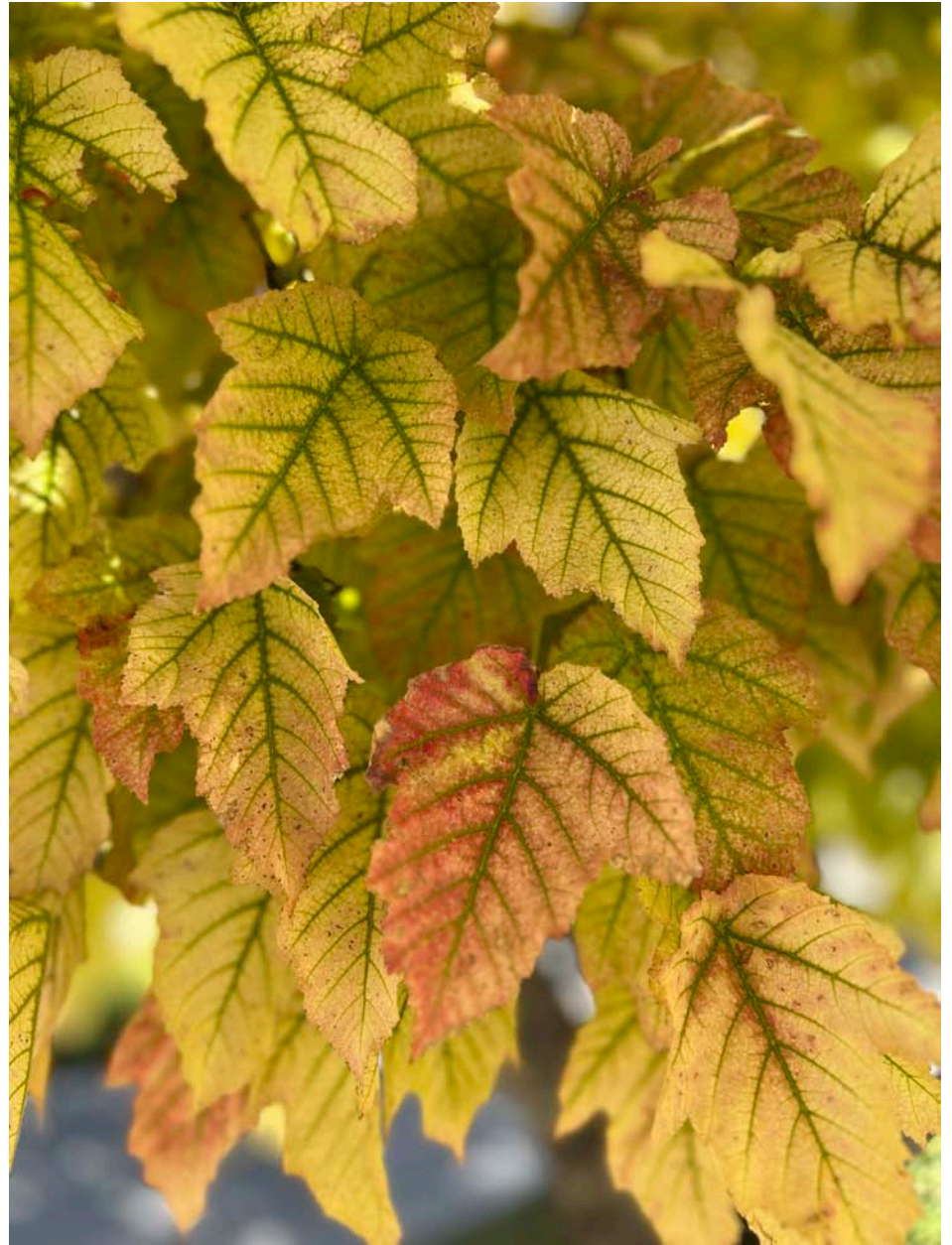


Andreas Hernandez



Jessica Rowland

Geography &
Environmental
Studies
Staff



Geography & Environmental Studies Staff

Iris Gutierrez

Department Administrator
Bandelier East 108

igutierrez12@unm.edu

505-277-5041

Iris serves and manages the department with administrative tasks, HR procedures, and supports students, staff, and faculty.



Mark Evans

Tech Support III

Bandelier Hall East (BANDE) - Room #106B

marke@unm.edu

(505) 277-0671 [Office – No Voicemail]

Mark serves as the technical support person for Geography & Environmental Studies and as the Spatial Computing Lab's manager.



Melodie D'Amour

Graduate Programs Coordinator

Bandelier Hall East 108

mdamour@unm.edu

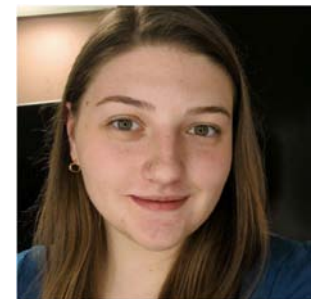
Melodie works full-time as the Graduate Program Coordinator for Geography & Environmental Studies.

Sarah Blake

Administrative Assistant II

Bandelier Hall East 108

dizzygrizzly@unm.edu





Geography &
Environmental
Studies
*Centers
& Student
Success*



R.H. MALLORY CENTER FOR COMMUNITY GEOGRAPHY

The mission of the R.H. Mallory Center for Community Geography is to build partnerships between the University of New Mexico and its surrounding communities that are effective in addressing critical human-environment issues and concerns. To achieve this mission, the center coordinates and funds community-engaged research and learning activities.

The center works in four main areas: service learning, collaborative mapping, place-based research, and public events that bring UNM and its surrounding communities together.

We welcome inquiries from students, professors, and community groups interested in working with us.



Core faculty from:

Geography & Environmental Studies

Biology

Earth & Planetary Sciences

Frequent Collaborators:

Civil, Construction, & Environmental
Engineering

School of Architecture & Planning



Example Projects

Airborne pollutants on tribal
reservations (Lin – NIH)

Crowdsourcing labels for automated
waterfowl classification from UAS data
(Lippitt – USFWS)

Automating bridge construction QAQC
using LiDAR (Lippitt, USDOT)

Machine classification of camera trap
imagery (Lippitt - USFWS)

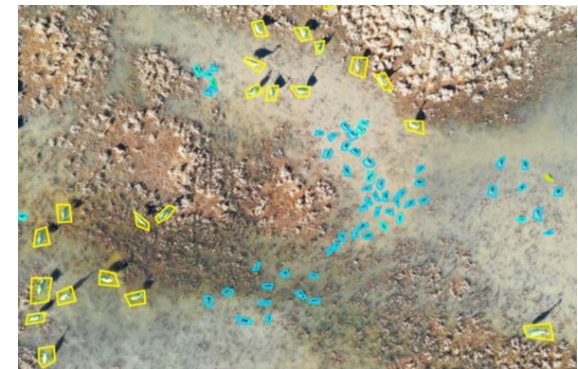
Assessing uranium exposure through
livestock (Lin – NIH)

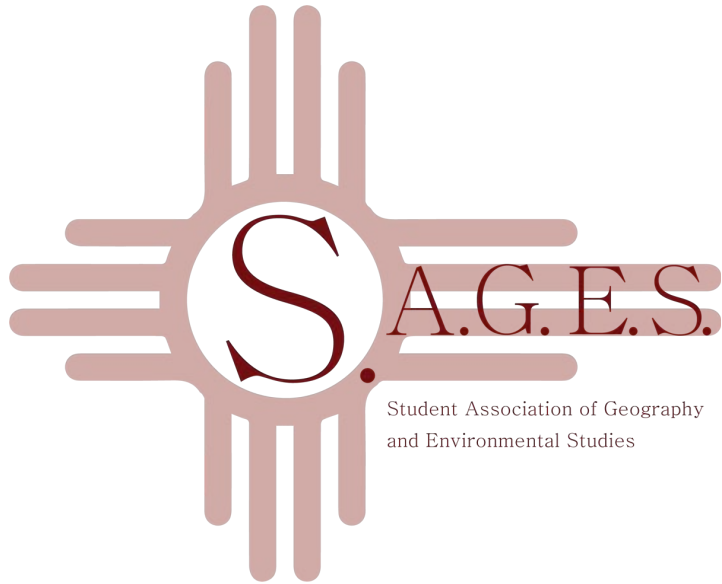
New Mexico Habitat Map (Lippitt –
NMDG&F)

Earthquake Scenario Optimization (Lin
– USGS)

Equipment and Services

- UAS photogrammetry,
LiDAR, and Multispectral
- GPS/GNSS surveying
- GPU Computing
- Spectroscopy



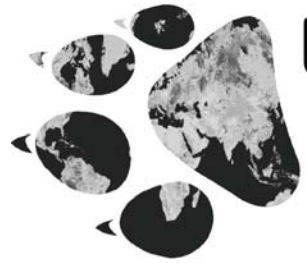


Our Mission: To provide students with a network of contacts in the department and around the field, while developing friendships and having fun in a relaxed, student-organized environment.

Our Vision: To foster students' ability to chart their academic future.



Twitter:
@SagesUnm



UNM DEPARTMENT OF GEOGRAPHY & ENVIRONMENTAL STUDIES ALUMNI CHAPTER

Our Mission: To provide a platform for professional development and networking for Geography Professional in the New Mexico Region.

Our Vision: To Build “The Alumni Chapter of the Future”

LinkedIn:

[UNM Geography & Environmental Studies Alumni](#)

Web address: <https://www.unmalumni.com/>



Departmental Honors

Geography Majors have the option of seeking honors in Geography by completing advanced independent work that leads to a Senior Thesis. Students must declare their intention to enter the Departmental Honors program to the Undergraduate Program Director during their junior year.

Requirements:

- Completion of all requirements for the B.A. or B.S. in Geography
- Maintenance of an overall grade point average of at least 3.50
- Completion of a minimum of 6 credit hours of GEOG 491 Problems
- Submission of a written senior thesis or comparable project, and a public presentation and discussion of the work

GES Internships

We maintain several public listservs where announcements, event information, internships, and job opportunities is sent:

To sign up for our listservs visit this link: [GES Department Listservs](#)

Standing Opportunities

(<https://geography.unm.edu/careers/index.html>)

- [Sandia National Lab](#)
- Earth Data Analysis Center ([EDAC](#))
- [ASPIRE](#) (Center for Advancement of Spatial Informatics & Research)
- Agricultura Network <https://agri-cultura.org/>
- Downtown Growers' Market <http://www.downtowngrowers.org/>
- New Mexico Solar Energy Association <https://www.nmsolar.org/>
- Warehouse 508 <https://www.warehouse508.org/>

GES Graduate Programs

Master of Science in Geography

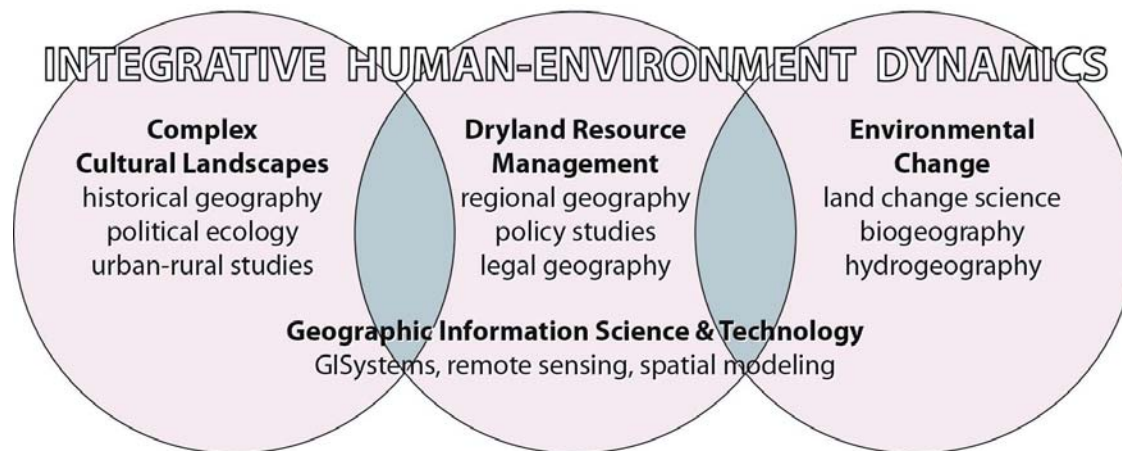
Concentrations:

Environmental Studies

Geographic Information Science

New Mexico Geography Ph.D. Program

The Department of Geography at New Mexico State University (NMSU) and the Department of Geography and Environmental Studies at the University of New Mexico (UNM) jointly offer a Doctor of Philosophy in Geography.



Questions?

Undergraduate Program Director

Dr. Miriam Gay-Antaki



Department Chair

Dr. Ronda Brulotte



Department of Geography & Environmental Studies

[Faculty Profiles](#)

<https://geography.unm.edu/>