The faculty encourages graduate students to arrange courses of study appropriate to their individual needs and aspirations. Programs in Geography may be directed toward a career in public service, teaching and research, private industry, or one of the many other vocational opportunities open to geographers. Students typically concentrate their study on topics that fall within the special skills and interests of the faculty. Current specialties include: behavioral geography; biogeography; cartography; climatology; cultural geography; feminist geography; geo-computation; geographic education; geographic information science; geography of the developing world; geographic theory; geographic visualization; historical geography; human dimensions of global change; nature and society; political geography; population geography; regional economic development and industrial location; remote sensing; and urban geography.

The M.S. program is broadly based. It is designed to provide beginning graduate students with basic training in systematic fields, geographical theory, and research techniques. Study at the Ph.D. level is also broad in the first year, then becomes more specialized.

Example Program for a Two-year Master’s Thesis Student with Half-time TA/RA Funding
(TA: Teaching Assistant, RA: Research Assistant)

YEAR 1

Fall
- Attend Geography orientation the entire week before classes start; TAs attend TA workshop given by Schreyer Institute for Teaching Excellence
- Attend entry interview with entry committee on last day of orientation;
  Student’s Summary and Adviser’s Report to Grad Staff Assistant
- Register for GEOG 500, 590, and additional credits before classes begin
- Select Adviser by Friday before Thanksgiving; gold form to Grad Staff Assistant
- TAs and RAs meet with supervisor at end of semester to discuss performance; form to be provided near end of fall semester; completed form goes to Grad Staff Assistant

Spring
- Register for GEOG 502, 590, and additional credits before classes begin
- Complete annual progress report by January 31
- Select two additional faculty members to complete master’s program committee; green form to Graduate Staff Assistant
- Meet with committee to defend thesis proposal and confirm that breadth and communications skills requirements are met; pink evaluation form with proposal copy attached to Grad Staff Assistant
TAs and RAs meet with supervisor at end of semester to discuss performance; *form to be provided near end of spring semester; completed form goes to Grad Staff Assistant*

**Summer**

- Conduct thesis research
- RAs meet with supervisor at end of summer to discuss performance; *form to be provided near end of summer; completed form goes to Grad Staff Assistant*

**YEAR 2**

**Fall**

- Register for 9 to 12 credits before classes begin; most or all of these credits can be GEOG 600/610
- Meet with committee by October 15, discuss summer’s research, and plan crucial dates for thesis completion
- TAs and RAs meet with supervisor at end of semester to discuss performance; *form to be provided near end of fall semester; completed form goes to Grad Staff Assistant*

**Spring**

- Register for 9 to 12 credits; most or all of these credits can be GEOG 600/610
- Complete annual progress report by January 31
- Activate intent to graduate in late January
- Submit draft of thesis to Adviser and to Graduate School for format review by early March
- Adviser and second reader read and sign final thesis; submit signed thesis to Department Head to read and sign by end of March/start of April (two weeks before Grad School deadline).
- Submit final thesis to Grad School in middle of April
- TAs and RAs meet with supervisor at end of semester to discuss performance; *form to be provided near end of spring semester; completed form goes to Grad Staff Assistant*
- Present MS research to department at poster session
- Submit bound copy of thesis to department
- Attend Graduate School commencement in early May

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**Penn State University Geography Department**

**Example Program for a Four-year PhD Student with Half-time TA or RA Funding**

**YEAR 1**

**Fall**

- Attend Geography orientation the entire week before classes start; TAs attend TA workshop given by Schreyer Institute for Teaching Excellence
☐ Attend entry interview with entry committee on last day of orientation week; student’s Summary and Adviser’s Report to Grad Staff Assistant.
☐ Register for GEOG 500, 590, and additional credits before classes begin
☐ Select Adviser by Friday before Thanksgiving; gold form to Grad Staff Assistant
☐ Select two other candidacy committee members by last day of classes; gold Provisional Doctoral Candidacy Committee form
☐ TAs and RAs meet with supervisor at end of semester to discuss performance; form to be provided near end of fall semester; completed form goes to Grad Staff Assistant

Spring
☐ Register for GEOG 502, 590 and additional credits before classes begin
☐ Complete annual progress report by January 31
☐ Submit “Appointment of Doctoral Candidacy Committee” form; blue form to Graduate Program Officer two months before candidacy exam
☐ Take candidacy exam; candidacy committee evaluates performance and also confirms progress on communications skills requirement; Adviser reports on green form; Grad Staff Assistant submits Grad School form
☐ Select doctoral committee; orange form to Grad Staff Assistant
☐ TAs and RAs meet with supervisor at end of semester to discuss performance; form to be provided near end of spring semester; completed form goes to Grad Staff Assistant

Summer
☐ Conduct pilot dissertation research
☐ RAs meet with supervisor at end of summer to discuss performance; provided form goes to Grad Staff Assistant

YEAR 2

Fall
☐ Register for 9 to 12 credits before classes begin; most or all of these credits can be GEOG 600/610
☐ Meet with doctoral committee to confirm program plans
☐ Discuss comprehensive exam topics with each committee member
☐ TAs and RAs meet with supervisor at end of semester to discuss performance; form to be provided near end of fall semester; completed form goes to Grad Staff Assistant

Late Fall or Spring
☐ Present dissertation proposal to doctoral committee in formal meeting (before comprehensive exam; note: student and Adviser can choose to have doctoral proposal meeting after comprehensive exam); Adviser reports on pink form to the Grad Staff Assistant with proposal copy attached to be placed in student’s file

Spring
☐ Register for 9 to 12 credits; most or all of these credits can be GEOG 600/610
☐ Complete annual progress report by Jan. 31
Schedule comprehensive exam; yellow form to Grad Staff Assistant three weeks before exam; 
Grad Staff Assistant submits form to Grad School
Take comprehensive exam (4 days writing with oral exam one week to 10 days later); Grad 
School evaluation form to Grad Staff Assistant
TAs and RAs meet with supervisor at end of semester to discuss performance; form to be 
provided near end of spring semester; completed form goes to Grad Staff Assistant

Summer

- Conduct dissertation research
- RAs meet with supervisor at end of summer to discuss performance; provided form goes to Grad Staff Assistant

YEAR 3

Fall
- Register for 9 to 12 credits before classes begin
- Meet with doctoral committee to discuss dissertation progress and plans
- Continue research as necessary
- TAs and RAs meet with supervisor at end of semester to discuss performance; provided form goes to Grad Staff Assistant

Spring
- Register for 9 to 12 credits before classes begin
- Continue research as necessary
- TAs and RAs meet with supervisor at end of semester to discuss performance; provided form goes to Grad Staff Assistant

Summer

- Conduct dissertation research
- RAs meet with supervisor at end of summer to discuss performance; provided form goes to Grad Staff Assistant

YEAR 4

Fall
- Register for 9 to 12 credits before classes begin
- Meet with doctoral committee before October 15 to discuss dissertation progress and plans
- Continue research as necessary
- Start writing dissertation
- TAs and RAs meet with supervisor at end of semester to discuss performance; provided form goes to Grad Staff Assistant

Spring
- Register for 9 to 12 credits before classes begin
Activate intent to graduate by middle of January
Complete annual progress report by Jan. 31
Finish writing dissertation
Submit partial draft of dissertation to graduate school for format review
Get agreement from Adviser and committee that dissertation defense may be scheduled (Adviser and usually all committee members have read drafts); schedule defense gray form to Grad Staff Assistant and Grad School
Present completely finished dissertation to committee two weeks before defense (all figures, appendices, etc.)
Announce defense one week before scheduled date (email to all grads and faculty)
Defend dissertation; Grad School evaluation form to Grad Staff Assistant
Make revisions and submit final dissertation with all signatures to Department Head to read and sign in first week of April
Submit final dissertation to Grad School in middle of April
Submit bound copy of dissertation to Department
Attend Graduate School commencement at end of finals week in May

Below are two actual examples of current M.S./PhD candidates specializing in Geospatial Sciences:

Paulo Raposo, PhD Candidate
PhD Dissertation Title: “Multiscale Geomorphometric Representation by Pixel Generalization”
MS Thesis Title: “Scale-Specific Automated Map Line Simplification by Vertex Clustering on a Hexagonal Tessellation”

FALL SEMESTER 2009
GEOG 500 INTRO GEOG RES 3.0
GEOG 590 COLLOQUIUM 1.0
GEOG 501A PHYSICAL GEOGRAPHY 1.0
GEOG 501B HUMAN GEOGRAPHY 1.0
GEOG 501C HUMAN-ENVT GEOG 1.0
GEOG 512 CARTOGRAPHY SEMINAR 3.0
GEOG 497E GEOVISUSEUSABILITY 3.0

SPRING SEMESTER 2010
GEOG 502 RESEARCH IN GEOG 3.0
GEOG 461W DYNAMIC CARTO REPR 3.0
GEOG 590 COLLOQUIUM 1.0
GEOG 600 THESIS RESEARCH 3.0

SUMMER SEMESTER 2010
GEOG 610 THES RES OFF CMPUS 1.0

FALL SEMESTER 2010
GEOG 497F CONCEP MOD PRG GIS 3.0
GEOG 600 THESIS RESEARCH 6.0

SPRING SEMESTER 2011
GEOG 596 INDIVIDUAL STUDIES 2.0
Jennifer Mason, PhD Candidate

PhD Dissertation Title: Dimensions of Uncertainty Visualization Research

FALL SEMESTER 2011:
GEOG 500 INTRO GEOG RES 3.0
GEOG 590 COLLOQUIUM 1.0
GEOG 560 GISCIENCE SEMINAR 3.0
GEOG 596 INDIVIDUAL STUDIES 1.0
GEOG 497G HUMAN FACTORS GIS 3.0

SPRING SEMESTER 2012:
GEOG 502 RESEARCH IN GEOG 3.0
GEOG 590 COLLOQUIUM 1.0
GEOG 597A SPATIAL THINKG SEM 3.0
GEOG 596 INDIVIDUAL STUDIES 3.0
FALL SEMESTER 2012:
IST 522 HCI THEORIES 3.0
STAT 505 APPL MULT ANAL 3.0
GEOG 597B VISANALYTICSGEOSOC 3.0
GEOG 497C GIS PROGRAMMING 3.0

SPRING SEMESTER 2013:
COMM 517 PSY ASP COMM TECH 3.0
GEOG 600 THESIS RESEARCH 3.0
GEOG 464 ADV SPATIAL ANAL 3.0
PL SC 597E BIG DATA 3.0

FALL SEMESTER 2013:
PL SC 597E BIG DATA & LAW 3.0
GEOG 596 INDIVIDUAL STUDIES 1.0
STAT 401 EXPT METHODS 1 3.0
GEOG 600 THESIS RESEARCH 5.0

SPRING SEMESTER 2014:
PL SC 597D ISSUES IN BIG DATA 3.0
GEOG 600 THESIS RESEARCH 3.0
GEOG 596 INDIVIDUAL STUDIES 3.0

FALL SEMESTER 2014:
GEOG 601 PHD DIS FULL-TIME 0.00