Geography

Amy E. Hessl, Associate Chair for Geography
G49 Brooks Hall

Degrees Offered

• Master of Arts
• Doctor of Philosophy

Nature of the Program

The graduate program in geography at West Virginia University provides students with the opportunity to study for a master of arts or a doctor of philosophy degree with an area of emphasis in one or more of the following fields:

• Geographic information science
• Environmental geography
• Human geography

Research

Students who are interested in pursuing research in an area other than these may do so provided the research area matches the interest of a faculty member in the department who agrees to supervise the student’s program. Students who wish to focus their research on a particular region are encouraged to do so. The Graduate Program in Geography at WVU has strong links with the University’s Regional Research Institute, the State GIS Technical Center, the Geology Program, the Water Research Institute, the International Studies Program, the West Virginia Geological and Economic Survey, the Center for Women’s Studies, and the Center for Black Culture and Research.

Computing Facilities

The geography program has extensive computing facilities housed in a new 98,000 square foot building dedicated exclusively to geography and geology. The new building has five computer laboratories dedicated to teaching and research. The department has ESRI ArcGIS, ERDAS Imagine, and ENVI site licenses. In addition, the department supports SAS, SAS-Graph, JMP, Surface III, Oracle, and extensive database and statistical packages. The department’s geovisualization research group operates an immersive four-wall 3-D display environment or CAVE. The remote sensing program operates an ASD full-range portable spectroradiometer.

Faculty

Chair

• J. Steven Kite - Ph.D. (University of Wisconsin)

Associate Chair for Geography

• Amy Hessl - Ph.D. (University of Arizona)

Professors

• Gregory A. Elmes - Ph.D. (Pennsylvania State University)
  GISc, Spatial Modeling, Crime Mapping
• Trevor M. Harris - Ph.D. (University of Hull)
  Eberly Professor, GISc, Virtual Reality and GIS, Participatory GIS, Spatial Humanities
• Randall Jackson - Ph.D. (University of Illinois)
  Director of Regional Research Institute, Regional Economic Geography, Regional Economic Health and Performance, Regional Science
• Ann M. Oberhauser - Ph.D. (Clark University)
  Director of Women’s Studies, Economic Geography, Regional Development, Gender Geography, Political Economy, Appalachia
• Timothy A. Warner - Ph.D. (Purdue University)
  Remote Sensing

Professor Emeritus

• Kenneth C. Martis - Ph.D. (University of Michigan)
  Political and Electoral Geography, Historical Geography
Associate Professors
- Amy Hessl - Ph.D. (University of Arizona)
  Biogeography, Forest Ecosystems
- J. Steven Kite - Ph.D. (University of Wisconsin-Madison)
  Geomorphology, Quaternary Studies, Geoarchaeology
- Brent McCusker - Ph.D. (Michigan State University)
  Uneven Development, Political Ecology, Africa

Associate Professor Emeritus
- Robert Q. Hanham - Ph.D. (Ohio State University)
  Political Economy of Uneven Development, Labor Geography

Assistant Professors
- Jamison Conley - Ph.D. (Pennsylvania State University)
  GISc, Geocomputation, Medical Geography
- Karen Culcasi - Ph.D. (Syracuse University)
  Geopolitics, Identity, Middle East, Cartography
- Eungul Lee - Ph.D. (University of Colorado)
  Climatology, Vegetation-atmosphere Interactions, Asian Monsoon
- Brenden McNeil - Ph.D. (Syracuse University)
  GIS, Remote Sensing, Ecosystem Ecology
- Jeremia Njeru - Ph.D. (University of Wisconsin-Milwaukee)
  Urban Development and Environmental Change, Urban Political Ecology
- Bradley Wilson - Ph.D. (Rutgers University)
  Social Movements, Globalization, Environmental Justice, Latin America

Clinical Assistant Professor
- Rick Landenberger - PhD. (West Virginia University)
  Remote Sensing, Ecology, Educational Outreach

Post Doctoral Researchers
- Jonathan Hall - Ph.D. (Ohio State University)
  Ecology, Biogeography
- MariaAlejandra Perez - Ph.D. (University of Michigan)
  Human Geography, Science and Society

Admission/Application Requirements
Master of arts applicants must submit GRE scores, a personal two-page statement defining the applicant’s interest in geography and career intentions, and two letters of recommendation from people who are familiar with the student’s undergraduate training. Ph.D. applicants should send three letters of recommendation, GRE scores, and a personal two-page statement defining the applicant’s interest in geography and career intentions. This material should be forwarded directly to:

Coordinator of the Geography Graduate Program
West Virginia University 330 Brooks Hall
P.O. Box 6300
Morgantown, WV 26506

Priority will be given to applications for fall admission and teaching assistantships received by January 15. To apply for fall admission without financial assistance, application material should preferably be received by April 1.

International students should submit their materials at least three months in advance of all deadlines. Prospective students must have an overall undergraduate GPA of 3.0 and a 3.0 GPA for undergraduate geography courses. Prospective doctoral students should have a cumulative GPA of at least 3.3. Students with degrees in other disciplines are encouraged to apply although they may be asked to make up deficiencies in geography during the first year in the program.

Research Assistantships
Research assistantships must be applied for through the faculty member whose research is providing the funding. The geography faculty are engaged in numerous funded research projects, many of which provide graduate students with opportunities for obtaining research skills and experience as well
as employment and tuition aid. Furthermore, the professional contacts made in the course of faculty research frequently provide graduate students with opportunities for career development.

**Master of Arts**

The M.A. degree program in geography was designated a program of excellence by the West Virginia University Board of Governors in 1998, 2003, and 2008. This award is given to superlative degree programs in recognition of their contribution to higher education in West Virginia and national recognition.

**Degree Requirements**

The program is designed so that full-time students should satisfy all program requirements within two years. Students are expected to be well-grounded in one or more of the program’s three areas of specialization (environmental geography, geographic information science, and space, place, and development). Students will be awarded an M.A. after fulfilling the following requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 601</td>
<td>Geographic Traditions</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 594</td>
<td>SEM:Geographical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 603</td>
<td>Qualitative Research-Geography</td>
<td></td>
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<tr>
<td>GEOG 701</td>
<td>Advanced Research Methods</td>
<td></td>
</tr>
<tr>
<td>GEOG 600</td>
<td>Geography Research Colloquium</td>
<td>4</td>
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<tr>
<td>GEOG 780</td>
<td>Non-Thesis Project</td>
<td>3-6</td>
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<tr>
<td>GEOG 797</td>
<td>Research</td>
<td></td>
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<tr>
<td>Additional Hours</td>
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<td>8</td>
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<tr>
<td>Total Hours</td>
<td></td>
<td>30-33</td>
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</table>

- Obtain thirty hours of graduate credit
- Complete the course GEOG 601
- Complete either GEOG 603 or GEOG 701
- Complete GEOG 600 for four semesters (four credit hours)
- Complete nine hours of geography graduate courses (400 level and above) but excluding GEOG 689–695 and GEOG 697–699 (Note: With the approval of the graduate committee, courses from other programs may also be used to fulfill this requirement.)

A. **Thesis Option**

Complete and successfully defend a written research thesis (GEOG 697, six credit hours)

B. **Professional Masters Option**

Complete a one-semester project (three credit hours) and an additional graduate course (400 level and above, three credit hours, but excluding 691 and 791 courses)

**The First Year for all M.A. Students**

Each incoming student is interviewed before the fall semester to identify the student’s interests and any academic deficiencies that require remedial work before graduate studies continue. All students are initially supervised by the Graduate Committee.

Once the student develops a more clearly defined research interest, no later than the middle of the spring semester, the student should request a faculty member to be their advisor. The student should discuss with the advisor whether to pursue the thesis or professional master’s option. The student and the advisor together select an advisory committee. A minimum of two of the three committee members (including the advisor) must be geography faculty members at WVU. Students may change advisor or committee members after consultation with the advisor and the Graduate Committee. The progress of every student is reviewed toward the end of the spring semester. In cases where a student is performing significantly below expectations, the student may be required to leave the program.

**The M.A. Thesis Option**

The M.A. thesis is an independent research project undertaken by the student. The thesis research should adhere to the following:

- Demonstrate knowledge of the literature in the student’s chosen field
• Use data and methods appropriate to the research
• Draw conclusions from the research endeavor

M.A. thesis option students develop a thesis proposal toward the end of the first year and during the first summer. The first step is to develop a written thesis proposal. This must be completed to the satisfaction of the student’s advisor and thesis committee no later than October 1 of the student’s second year. This is followed by an oral presentation to all students and faculty in the geography program no later than October 31 (unless there are scheduling conflicts). Presentations must be advertised within the department. Students should aim to complete the thesis proposal process well before the October deadline in order to ensure progress towards graduation the following semester. Students not able to meet this schedule should seek a meeting with their advisor to resolve the issue prior to the deadline dates.

The defense of the thesis takes place when the advisor and the committee agree that a defendable copy of the thesis is complete. The defense date must be advertised at least two weeks in advance. Only in exceptional circumstances will the thesis committee waive the two-week requirement for advertising thesis proposals and defenses. The thesis examination is graded on a pass/provisional pass/fail basis. To pass the examination, there can be no more than one unsatisfactory grade from the committee members. A student who fails may submit another thesis or a revised version upon the approval of the student’s committee. No student may be re-examined more than once. A student who is given a provisional pass will generally be required to make minor revisions or corrections to the thesis.

Thesis proposals and defenses are not normally scheduled between June 15 and August 15.

The Professional Master's Option

Overview
The professional master's option consists of an additional graduate course and a three-credit-hour project (GEOG 780). The professional master's option is designed for students interested in a more focused project than the traditional research thesis option. It is not recommended for students considering entering a Ph.D. program. The thesis project has strict deadlines and must be completed in one semester and after the completion of GEOG 601 and either GEOG 603 or GEOG 701.

Deadlines and Timetable

Students planning on selecting the professional masters' option must make a written request to the Geography Graduate Committee no later than two weeks before the start of the semester in which the project is undertaken. The request should be endorsed by the student’s advisor. Only after the written request has been received will the geography graduate director issue a permit for the course. It is strongly recommended that the project topic be selected prior to the beginning of the semester.

A written project plan is to be submitted to the advisor and committee no later than three weeks after the start of the semester. The project plan includes an objective, methods, and timetable. No public presentation of the proposal is required.

The student is required to have meetings with the advisor and the committee in weeks seven and eleven to present progress reports.

The project must be completed and successfully defended by the end of the semester in which the project was undertaken. If the student completes the project, passes the defense, and submits the project to the library by the end of the semester, the student will be given a grade of S (satisfactory) for the GEOG 780 course.

If the student completes and defends the project, but is unable to submit the project to the library by the university deadline, the student will be assigned an (I) incomplete for the project. The student then has up to two weeks after the last day of exam week to submit the project to the library; otherwise, the I is converted to a U (unsatisfactory).

If the student completes the project and fails the defense or if the project is not completed and defended by the end of the semester, the student will be given a grade of U for the GEOG 780 course.

Students who receive a grade of U may reapply to do a different project the following semester. Students cannot reapply more than once.

The Graduate Committee may grant an extension to the one semester deadline under exceptional circumstances.

Project Topic and Defense

The choice of a project topic is to be determined by close interaction and agreement between the student, advisor, and committee. The project may comprise a wide range of activities, but is usually either (a) an applied problem-solving exercise with minimal literature review, (b) an empirical test of an idea from the literature with minimal literature review, or (c) a literature review or development of a conceptual idea using the literature.

The project is defended in a public presentation at the end of the project semester, but no later than the university deadline for a thesis defense. The defense time and location must be published in the department no less than two weeks in advance. The standard for passing will be that the majority of the advisory committee (two or more of the three members) evaluate the work as substantially meeting the goals identified in the written research plan.
Most projects are expected to be in written form (fifteen to twenty pages). Other forms of presentation may be acceptable such as maps, software, video, land-use plan, image classification, field-trip guide, work of art, etc.; however, a written document explaining the project is still required.

**Doctor of Philosophy**

Prospective doctor of philosophy students must have a master’s degree. Students with degrees in other disciplines are encouraged to apply, but they may be asked to make up deficiencies in geography during their first year in the program. Incoming geography students may also be asked to make up deficiencies if any are found during the student’s entry interview with faculty. This interview is immediately prior to the first semester of the program.

Students are expected to be well-grounded both in one of the program’s areas of emphases and in the history and philosophy of geography. Students will be awarded a Ph.D. after obtaining twenty-eight hours of graduate credit, completing certain required courses, passing comprehensive examinations, and writing a dissertation. These steps are discussed in more detail below.

**Coursework**

The courses *GEOG 600* and either *GEOG 701* or *GEOG 603* (three hours) are required as well as three general electives and two method electives. An additional eleven hours of other courses, which may include seminars and directed study courses, must also be completed. A limited number of the required courses may be waived if the student has already completed an equivalent course and can demonstrate proficiency with the material.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GEOG 601</td>
<td>Geographic Traditions</td>
<td>3</td>
</tr>
<tr>
<td><strong>Methods Course:</strong></td>
<td></td>
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<tr>
<td>GEOG 603</td>
<td>Qualitative Research-Geography</td>
<td>3</td>
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<tr>
<td>GEOG 701</td>
<td>Advanced Research Methods</td>
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<tr>
<td><strong>Geography Courses:</strong></td>
<td>6</td>
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<tr>
<td>GEOG 407</td>
<td>Environmental Field Geography</td>
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<tr>
<td>GEOG 452</td>
<td>GIS:Applications</td>
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<td>GEOG 453</td>
<td>GIS:Design and Implementation</td>
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<tr>
<td>GEOG 485</td>
<td>Methods Geographic Research</td>
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<tr>
<td>GEOG 550</td>
<td>Geographic Information Science</td>
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<tr>
<td>GEOG 603</td>
<td>Qualitative Research-Geography</td>
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<tr>
<td>GEOG 630</td>
<td>Sem:Land Use and Cover Change</td>
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<tr>
<td>GEOG 651</td>
<td>GIS:Technical Issues</td>
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<td>GEOG 655</td>
<td>Remote Sensing Principles</td>
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<tr>
<td>GEOG 701</td>
<td>Advanced Research Methods</td>
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<tr>
<td>GEOG 753</td>
<td>Exploratory Spatial Data Analy</td>
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<tr>
<td><strong>Seminar Course:</strong></td>
<td>3</td>
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<tr>
<td>GEOG 607</td>
<td>Geography of Fire</td>
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<tr>
<td>GEOG 612</td>
<td>Gender, Society and Space</td>
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<td>GEOG 615</td>
<td>Development Geography</td>
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<tr>
<td>GEOG 621</td>
<td>Advanced Fluvial Geomorphology</td>
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<tr>
<td>GEOG 694</td>
<td>Sem:Geopolitical Perspectives</td>
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<tr>
<td>GEOG 753</td>
<td>Exploratory Spatial Data Analy</td>
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<td><strong>Colloquium:</strong></td>
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<tr>
<td>GEOG 600</td>
<td>Geography Spatial Analy</td>
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</table>

**Total Hours** 22

**Examinations and Dissertation**

The student is required to pass an oral and three written comprehensive examinations no later than the fourth semester. The student will be examined on two areas of specialization and the student’s dissertation research topic. Upon successful completion of the comprehensive examination and no later than the end of the fifth semester, the student will be expected to defend a dissertation research proposal. The award of the Ph.D. is granted upon the successful defense of the dissertation itself.

**Assistantships**

The Geography Graduate Program has a number of teaching and research assistantships available each year, which are allocated to qualified students on a competitive basis. These awards include a full university tuition waiver. Teaching assistantships are awarded annually and for no more than four semesters for M.A. students and six semesters for Ph.D. students. Ph.D. teaching assistants who meet all comprehensive exam and dissertation proposal deadlines, have made excellent progress towards the completion of their dissertation research, and have applied for at least one external
research grant may request an additional year of funding. Assistantships are reconfirmed each year based on performance in the previous year with respect to both assistantship duties and academic progress. Additionally, meritorious tuition waivers are offered on a competitive basis to outstanding students who do not receive assistantships. Requests for teaching assistantships and tuition waivers should be sent directly to the Coordinator of Graduate Studies in Geography by January 1. International students should submit their materials at least three months in advance of this deadline.