

# Geography B.A./B.S.

## *Expanded Statement of Institutional Purpose*

### **Institutional Mission Reference**

Geography is highlighted in The Mission of the University as a program contributing to the University's role as Virginia's international institution. To support and enhance this role, the program designs curricula and teaches courses that cover the wide range of substantive and technical areas of the discipline, including area studies, human-environment relationships, the global environment, and technical areas of cartography and geographic information systems (GIS). The Bachelor of Arts and Bachelor of Science degree programs in Geography offer study of world religions, geographic concepts, and integrative skills for the intellectual and professional preparation of students.

### **Institutional Goal(s) Supported**

Geography contributes to University goals by: 1. Ensuring a high quality curriculum at the undergraduate level. 2. Ensuring high quality teaching effectiveness. 3. Promoting the discovery of new knowledge by an active research agenda. 4. Enhancing international and geographic perspectives and the University's international mission. 5. Adding to the diversity and enrichment of the academic community. 6. Providing integrative skills in computer technology in social and environmental sciences. 7. Providing substantial and diverse student learning outside the classroom. The Geography Program also contributes to Strategic Initiatives by: 1. Ensuring high quality, distinct, and rigorous undergraduate programs. 2. Enhancing diverse graduate programs in areas of geographic information systems (GIS) technology. 3. Enhancing the University's international education. 4. Supporting first-year graduate courses offered in BAIS/MAIS/GPIS programs. 5. Supporting area studies minors (Asia, Europe, Latin America, Middle East).

## *Intended Educational (Student) Outcomes, Methods for Assessment, Criteria for Success, Assessment Results, and Use of Results*

### **Intended Outcome 1**

Students will gain a foundation of geographic concepts of human organization, cultural differentiation, and human-environment interactions.

**Method for Assessing Outcome 1 and Criterion for Success:** A senior capstone paper is required for graduation and will be reviewed annual for satisfactory quality by a panel of three faculty members.

**Summary of Assessment Data Collected for Outcome 1:** Senior capstone papers were collected as required for graduation in May 2001. The departmental review of three graduating students assessed papers on five characteristics: 1) conceptual subject

understanding, 2) analytical and critical thinking, 3) writing style, 4) presentation, and 5) source materials. Three papers were reviewed in June 2001. Criteria #1, conceptual understanding of the subject, resulted in scores from 2-5 (scale 1-5) having a mean of 3.667. Scores were given based on the following: 1=poor, 2=below average, 3=average, 4=above average, 5=excellent.

**Use of Assessment Results from Intended Outcome 1 to Improve Academic**

**Program:** This year's senior capstone papers show need for improvement in the selection of papers for capstone submission. Next year's faculty advising and student instruction for capstone papers will be revised accordingly. Students will be instructed on improving the quality of source materials and presentation, including research papers conducted in methodological classes. Student advisors will be directed to review capstone paper selection prior to graduation. Course instructors will advise students on the general criteria for assessment within courses so that class requirements are directed at improving the criteria used for assessment.

**Intended Outcome 2**

Students will gain functional skills in methods of research, including research design, statistics, mapping, and critical thinking.

**Method for Assessing Outcome 2 and Criterion for Success:** A senior capstone paper is required for graduation and will be reviewed annual for satisfactory quality by a panel of three faculty members.

**Summary of Assessment Data Collected for Outcome 2:** Senior capstone papers were scored on the analytical and critical thinking criteria and presentation quality (including use of graphics, tables, and statistical tabulations.) The scoring system ranked papers from 1-5.

**Use of Assessment Results from Intended Outcome 2 to Improve Academic**

**Program:** The submitted capstone papers averaged 4.5(between above average and excellent) on presentation quality. Critical thinking criteria scored an average 4.25. Although the assessment score card did not explicitly include statistical and quantitative methods in the critical thinking criteria, papers generally included some analytical component using quantitative methods. Papers scored high largely in their investigative and scientific hypothesis-testing approach and use of Geographic Information System (GIS) techniques and presentation graphics. To improve scores for subsequent assessments, our assessment score card will be updated to reflect quantitative methods GIS graphics as well. Revision to the major curriculum will soon reflect students application of these analytical skills to research papers conducted in thematic geography courses.

**Intended Outcome 3**

Students will gain a foundation of skills in computer technology applications in geographic information sciences (cartography, desktop mapping, remote sensing, or geographic information systems).

**Method for Assessing Outcome 3 and Criterion for Success:** A senior capstone paper is required for graduation and will be reviewed annual for satisfactory quality by a panel of three faculty members.

**Summary of Assessment Data Collected for Outcome 3:** Three capstone papers were submitted for graduating seniors. Two of the papers included the above technology as fundamental to the research papers. The papers incorporated GIS and computer mapping methods and presentation graphics. The scores for these criteria ranged from 4 to 5 (2 papers) with an average 4.667 (near excellent).

**Use of Assessment Results from Intended Outcome 3 to Improve Academic Program:** The high scores reflect the curriculum changes in the past two years, providing students broader course offerings in the technology classes. The scores may further be improved if students are advised and encouraged to apply these techniques to research papers even if the class is topical or thematic rather than technical. The program will encourage students to apply their technical skills in the methods courses to research papers prepared for other classes. We will further stimulate this hybrid approach in senior theses and independent study projects to improve future capstone paper assessment quality.

**Intended Outcome 4**

Students will develop effective oral communication skills.

**Method for Assessing Outcome 4 and Criterion for Success:** All students will give a 30-minute oral presentation of their research or a series of 15- to 20-minute presentations in seminar "writing-intensive" courses. These presentations of research designs, projects, or reviews will be delivered to the class audience for evaluation and factored into the respective course grade. On alternate years, a sample of these presentations will be videotaped for review by a panel of three faculty members

**Summary of Assessment Data Collected, Alternate Method for Outcome 4:** Assessment of oral presentation quality is provided for in the classroom observation and grading by individual faculty. Scores on presentation quality, materials, and primarily delivery skills are factored into each course. Each graduating senior is required to have completed and satisfactorily presented a research presentation.

**Use of Assessment Results from Intended Outcome 4 to Improve Academic**

**Program:** High quality presentations are supported by the incorporation of graphics from the technology assessment criteria. A new seminar in the curriculum provides for group presentations. This course will be modified to encourage individual oral presentation and projects as well. We will provide a further outlet for presentation of independent studies in a public setting as part of the assessment of this course grade as well.

**Intended Outcome 5**

Students will develop effective written communication skills.

**Method for Assessing Outcome 5 and Criterion for Success:** A senior capstone paper is required for graduation and will be reviewed annual for satisfactory quality by a panel of three faculty members.

**Summary of Assessment Data Collected for Outcome 5:** Course grades for writing-intensive classes reflect a majority percentage of the grade being derived from writing assignments. Currently, GEOG 306U(W) Hazards: Natural and Technologic, fulfills this requirement. Independent study projects may also fulfill the requirement with permission of the program director. The capstone papers submitted scored the papers on writing style source materials to specifically evaluate the written communication skills. Results included a mean writing style of 4 (scale 1-5, modal value of 4 for all three papers). Results for source materials were weak, having a range of 2-4 and mean of 3.0.

**Use of Assessment Results from Intended Outcome 5 to Improve Academic**

**Program:** Overall quality of the written communication skills was "average" in this year's capstone papers. This assessment highlights the relatively weak quality and quantity of source materials for two papers. Given that the submitted papers were conducted for capstone work in technical courses, this comes as no major surprise. The program director will advise faculty to change the writing requirements for papers in technical classes to match the quality in substantive courses (the paper submitted for assessment having the highest score was in a non-technical course). The number, diversity, and quality of references will be thus raised across the board to a common standard and thereby improve subsequent years' quality.