A. ASSESSMENT OF INTERNAL AND EXTERNAL FACTORS AND STUDENT SUCCESS: Perform a SWOT analysis of your program, indicating the STRENGTHS, WEAKNESSES, OPPORTUNITIES, and THREATS in relation to program goals and available resources, including an evaluation of the curriculum in terms of student needs. Analyze the external factors affecting program goals and performance, e.g., changes in demographic, educational, social, economic, workforce, or global trends; evolving technology; demand (based on enrollment trends or other factors); linkage with other related campus programs, services, or committees; local availability of similar programs; availability of auxiliary funding. Include supplemental survey results and other data whenever available. (References: Educational Master Plan; Curriculum Sheet; Department and All-College Program Review Data (Retention, Success); 1999-2000 Program Planning Summary; Other ______________)

1. Internal factors:
   From 1997(?) to 2000-2001, the Geography Department was staffed exclusively by part-time faculty. The addition of a full time faculty member in the 2000-2001 academic year has greatly strengthened the program. The development of a strong web presence, frequent communications with counselors, and an internship program have helped to educate the campus about the importance of Geographic education.

   The Geographic Information Systems (GIS) certificate program, which was introduced in the 2001-2002 academic year, has greatly enhanced the Geography program. GIS skills are widely sought after by traditional employers of Geography majors, as well as by many nontraditional ones (e.g. business, journalism, social services etc.) Foothill College is the only community college in the region to offer a comprehensive GIS certificate program. The program has flourished, despite the recent economic downturn and the corresponding enrollment drop in other computer-related training programs.

   An examination of the Geography program’s numerical profile shows a continued trend of improvement. In the last three years, enrollment (WSCH) has increased 105% (from 1590 to 3271). Likewise, productivity has increased 28% (from 348 to 446), though this still remains below the division goal of 530. While retention remains high (85%), student success rates (73%) remain below the college average rates.

2. External factors:
   Since the addition of a full-time Geographer in the 2000-2001 academic year, the program has collaborated on courses and grant proposals with the Geology and Business programs. In addition, the industry outreach efforts pursued by the Geographic Information Systems (GIS) Certificate Program (giving presentations and invited talks at industry conferences, hosting booths at GIS Education fairs) has created a strong and well-respected presence for Foothill College within the Bay Area cartography community.

   The Geography curriculum remains current and fully transferable. The primary transfer courses (Human, Physical, World Regional, and Economic) are offered regularly in class and online. The Geography major can also be completed entirely online.

B. STUDENT SUCCESS EVALUATION: Briefly discuss how the program is performing relative to program and college projections for student success. Comment on specific student success programs or services provided by the college that you perceive to be particularly valuable to your students. Identify unmet needs related to student success. (References: Educational Master Plan; Curriculum Sheet; Department and All-College Program Review Data (Success); 1999-2000 Program Planning Summary; Other ______________)

C. STUDENT EQUITY/DIVERSITY ANALYSIS: Student equity may already be defined as a factor in the above assessments. Use this section to offer additional observations and to specify other needs related to bringing your program into alignment with college or program goals for student equity. (References: Educational Master Plan; Division and All-College Program Review Data (Success by Ethnicity, Gender, Age); Other __________________)

D. ACTION PLANS AND PROPOSED PROGRAMMATIC CHANGES: Review the Education Master Plan (EMP), Partnership for Excellence (PFE) goals, Curriculum Sheet, and Department Program Review Data. Using
measurable terms, describe the program’s goals related to these documents. (Examples: “The number of students issued a Career Certificate will increase by five over last year’s figure.” “The program will initiate an advisory board.” “Faculty will examine learning goals for their programs and courses.” Etc.)

1. Program Goals Related to Educational Master Plan and Partnership for Excellence:

2. Other Program Improvement Plans:

E. ENROLLMENT AND PRODUCTIVITY GOALS (References: Program Review Data Sheet (Enrollment and Productivity); Other ________________)

F. SUMMARY OF RESOURCES REQUESTED: Summarize resources needed to reach program goals and describe the expected outcomes for program improvement. (Specifically what will be the outcome of receiving these resources? What will happen if the resource requests aren’t granted?) Complete any of the following sections that apply to your current program needs.

1. FULL-TIME EQUIVALENT FACULTY OR STAFF NEEDS:

2. FACILITIES NEEDS: (Include all aspects of the physical setting, e.g., room size, seating type and arrangement, multimedia equipment, lab stations, etc., that might provide a more effective student learning environment.)

3. MATERIALS AND SUPPLIES BUDGET AUGMENTATION:

Evaluation of academic year 2001-02.__________________________________________________________________________ Date of evaluation:

List names of participants assisting in this program review.

Primary program contact person: K. Allison Lenkeit Phone or email address: lenkeitkaren@fhda.edu
Full-time faculty: K. Allison Lenkeit
Part-time faculty:
Administrators: Elizabeth Zoltan
Classified staff:
Students:
**PROGRAM NAME:** Geography and Geographic Information Systems  
Degree/certificate options available:  
Associate in Arts Degree: Geography  
Certificate: Geographic Information Systems (GIS)

**PROGRAM MISSION AND OUTCOMES**

**Program Mission**  
Upon completion of the Geography major, student will possess analytical skills necessary to engage in upper division course work in Geography. Students completing the Certification in Geographic Information Systems (GIS) will have the skills necessary to assume GIS Technician III to GIS Technician I jobs in the public or private sector.

**Goals**  
1. To be able to interpret maps  
2. To analyze regional development and prosperity  
3. To compare and contrast regional economic, cultural and physiographic diversity  
4. To discuss the use of computer technology in the discipline

**Expected Student Outcomes**  
1. Interpret choropleth and isopleth maps  
2. Analyze the environmental and cultural factors that affect the prosperity of different regions of the world.  
3. Compare and contrast the major economic, cultural and physiographic regions of the world.  
4. Discuss applications of Geographic Information Systems technology to Geography and other fields.  
5. Complete the required core classes for the degree or certificate.  
6. Complete the minimum number of electives required for the degree or certificate.  
7. Receive a “C” or better in all required courses.  
8. Complete all of the General Education Requirements

### DIRECT OUTCOMES: Program-Specific Outcomes and Attributes Desired of Program Graduates

<table>
<thead>
<tr>
<th>PROGRAM CONTENT PROFICIENCIES/ COMPETENCIES</th>
<th>BEHAVIORS: What should a student be able to do upon graduation?</th>
<th>REQUIRED PROGRAM COURSES related to this outcome: Where do students acquire experience?</th>
<th>OUTCOME MEASURES — Evidence or Sample Demonstrating Deep Learning: How do we know what a student has achieved?</th>
</tr>
</thead>
</table>
| Interpret maps                              | Interpret and analyze choropleth and isopleth maps.           | GEOG01, GEOG02, GEOG05, GEOG10, GEOG12, GEOG52, GEOG54, GEOG56, GEOG58, GEOG59 | Examinations involving map interpretation, projects, class discussions (all courses)  
Laboratory assignments (GEOG01, GEOG12, GEOG52, GEOG54, GEOG58, GEOG59) |
| Regional development and prosperity         | Analyze the environmental and cultural factors that affect the prosperity of different regions of the world | GEOG01, GEOG02, GEOG05, GEOG10 | Courses measure outcomes including some or all of the following assessment techniques: Essay midterm and/or final examinations, class and small group discussions, oral presentations, term projects/papers |
| Regional diversity                          | Compare and contrast the major economic, cultural and physiographic regions of the world | GEOG01, GEOG02, GEOG05, GEOG10 | Courses measure outcomes including some or all of the following assessment techniques: Essay midterm and/or final examinations, class and small group discussions, oral presentations, term projects/papers, laboratory assignments |
| Awareness of technology in the discipline   | Discuss applications of Geographic Information Systems (GIS) technology | GEOG01, GEOG02, GEOG05, GEOG10, GEOG12, GEOG52 | Courses measure outcomes including some or all of the following assessment techniques: Homework or laboratory |
### GEOGRAPHY

<table>
<thead>
<tr>
<th>PROGRAM CONTENT PROFICIENCIES/COMPETENCIES</th>
<th>BEHAVIORS: What should a student be able to do upon graduation?</th>
<th>REQUIRED PROGRAM COURSES related to this outcome: Where do students acquire experience?</th>
<th>OUTCOME MEASURES — Evidence or Sample Demonstrating Deep Learning: How do we know what a student has achieved?</th>
</tr>
</thead>
<tbody>
<tr>
<td>to Geography and other fields</td>
<td>GEOG54, GEOG56, GEOG58, GEOG59</td>
<td>exercises, multiple choice and/or essay exams, oral presentations</td>
<td></td>
</tr>
<tr>
<td>Required core courses</td>
<td>Pass with a “C” or better</td>
<td>See curriculum sheets</td>
<td>See curriculum sheets</td>
</tr>
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</table>

#### CORE COMPETENCIES:

<table>
<thead>
<tr>
<th>CORE COMPETENCIES</th>
<th>Outcomes and Attributes Distinct to This Program</th>
</tr>
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<tbody>
<tr>
<td><strong>Communication</strong></td>
<td>Proficiency in English reading, writing, speaking, listening, presentation and interpersonal communication</td>
</tr>
<tr>
<td>GEOG01, GEOG02, GEOG05, GEOG10, GEOG12, GEOG52, GEOG54, GEOG56, GEOG58, GEOG59</td>
<td>Courses measure outcomes including some or all of the following assessment techniques: Essay and/ or multiple choice midterm and/or final examinations, class and small group discussions, oral presentations, term projects/papers</td>
</tr>
<tr>
<td><strong>Computation</strong></td>
<td>Problem solving and analytical thinking skills, computer proficiency and using and interpreting graphs and numerical data</td>
</tr>
<tr>
<td>GEOG01, GEOG02, GEOG05, GEOG10, GEOG12, GEOG52, GEOG54, GEOG56, GEOG58, GEOG59</td>
<td>Courses measure outcomes including some or all of the following assessment techniques: Essay and/ or multiple choice midterm and/or final examinations, term projects/papers, laboratory assignments</td>
</tr>
<tr>
<td><strong>Creative, Critical &amp; Analytical Thinking</strong></td>
<td>Analysis, synthesis, evaluation, research</td>
</tr>
<tr>
<td>GEOG01, GEOG02, GEOG05, GEOG10, GEOG12, GEOG52, GEOG54, GEOG56, GEOG58, GEOG59</td>
<td>Courses measure outcomes including some or all of the following assessment techniques: Essay and/ or multiple choice midterm and/or final examinations, term projects/papers, laboratory assignments</td>
</tr>
<tr>
<td><strong>Community/Global Consciousness &amp; Responsibility</strong></td>
<td>Cultural awareness, social perceptiveness, empathy, awareness of global diversity</td>
</tr>
<tr>
<td>GEOG01, GEOG02, GEOG05, GEOG10</td>
<td>Courses measure outcomes including some or all of the following assessment techniques: Essay and/ or multiple choice midterm and/or final examinations, term projects/papers, class and small group discussions, oral presentations</td>
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