

## Response to Academic Program Review Report

Submitted by GES Dept Chair Maria Lane, 26 July 2017

### Criterion 1: Learning Goals and Outcomes

**Overall Findings: Met (M)**

The GES program goals for the undergraduate and graduate programs are specified by the department and are aligned with the college and university goals. Departmental goals are available on their website. Students are clearly kept apprised of the departmental goals and directions.

**Strengths/Positive Aspects:**

GES has developed an institutional practice of communication. By reaching out internally (across campus with affiliated faculty) and externally (the advisory board), department has established a strong internal reputation as a well-respected, hard-working department. The undergraduate and graduate program goals and the departmental goal of a joint Ph.D. program with NMSU are clearly understood and supported. The department presents a vision of where it wants to go and what it wants to be and articulates the goals quite clearly

**Considerations/Concerns:**

The GES Department has grown since the last APR, in large part, due to strong, driven leadership and the department, has to some extent, been cobbled together through hires of opportunity of faculty who fit well within the interdisciplinary frame of department. As the department moves forward, how this interdisciplinary faculty achieves those goals may be less clear, as at least a portion of the program appears to be "faculty specialty" driven, rather than programmatic.

### DEPARTMENT RESPONSE

The external reviewers have accurately perceived the challenge GES faces in forging programs and goals within a highly interdisciplinary faculty that has grown through opportunistic hiring rather than via strategic plan. This has been partly unavoidable, due to the prevalence of spousal/transfer hire activity within the College instead of competitive/planned hiring. To address the concern that GES may become driven by faculty specialty rather than by programmatic goals, we will work during AY2017-18 to clarify programmatic goals and set strategic targets that can guide the next 5-10 years of program building.

### Criterion 2: Teaching and Learning Curriculum

**Overall Findings: Met (M)****Strengths/Positive Aspects:**

There are a number of very positive aspects about the GES curriculum and course offerings. There is clear evidence of alignment with university and departmental goals in each course and coordination across campus from the documentation provided in the self-study. Many courses capitalize on the research and intellectual strengths of individual faculty members adding depth and richness to the offerings. Faculty are engaged in developing and refining the course offerings in an ongoing, evolving endeavor to maintain enrollment and to meet student, degree program, faculty, and workplace needs.

GES offers two distinct degrees, a BA emphasizing Environmental Studies and a BS focused on GIScience, and they are reasonably well integrated, sharing key core components of spatial analysis and concerns with human-environment relationships. At the graduate level, the two- course introductory sequence in the MS program offers

all students a clear foundation and appears to move students through completion of the degree successfully.

GES has been innovative in offering a selection of introductory online courses. However, this foray into online teaching may need further study to ensure it is meeting competing departmental needs to acquire SCHs and course fees as well as majors. Geography is somewhat unique in that few students come to the University seeking to major in it; it is a discipline often “discovered” through an introductory class, frequently as part of a core curriculum requirement. Online courses may not be as effective in recruiting potential majors as face-to-face offerings.

Given extensive faculty connections with other programs on campus, we suggest GES consider reaching out to other departments to develop double major schemes.

#### **Considerations/Concerns:**

As we noted in the introductory section of this review, we have concerns about the overall focus of the degree programs offered by GES, particularly because of the use of the term “Environmental Studies” in its name. In the self-study GES’s mission was described as, “...teaching and research in human geography and the environment.” The program description identified one degree as “a social science focus on human-environment interaction.” That is not what is considered classically an *environmental studies* program. We humbly suggest the department may wish to consider refocusing its mission from teaching “Environmental Studies” to teaching “Environment and Society” to reflect the strengths of the department. An alternative would be to seek resources to include more physical geography, a traditional component of environmental studies programs. We understand the purpose of the name change as explained on page 41 of the self-study. However, it is not clear it has achieved the original purpose or served the department well five years from its introduction.

More specifically, we feel that GES needs to continue to develop a clear scope and sequence for their two undergraduate degrees and to instill further rigor and structure into all degrees (BA, BS, MS). You may wish to consider implementing “cornerstone” course(s) as pre-requisites to upper division classes in the BA/BS. We recommend this processes of curricular review not rely solely on current faculty specialisms but rather align with a clearer statement of “what students should know and be able to do” at the conclusion of their program.

Students were generally very pleased with their programs. However, several requested additional field-based experiences in all courses, at the BA, BS, and MS levels. In addition, we also heard several requests for a wet lab from students. However, we are unclear on the need for this or the connection to research needs of faculty and potential use in existing courses.

Overall, there is a strong need for a long-range academic plan carefully outlining course offerings and a semester-by-semester schedule to ensure the department can deliver its courses on a regular basis. This will facilitate faculty course assignment and should improve time to degree if students have a clear idea of graduation requirements and their progress. It will also be necessary as the department adds a PhD program and needs to balance teaching responsibilities across three programs instead of two.

#### **DEPARTMENT RESPONSE**

Because Geography and Environmental Studies are highly interdisciplinary fields, it is uncommon for a single department to provide a full curriculum covering every sub-area. This means departments are forced to choose which sub-areas they will offer, and in general this is dependent on faculty expertise. Unless the GES faculty were to double in size (which we do not believe would serve UNM) and allow for an addition of multiple new curricular offerings, we will likely be forced to continue using a model that allows curricular planning to be driven to some extent by faculty specialization. That said, however, we agree that the curriculum could be re-worked to improve its coherence for students and to ensure it can be delivered regardless of whether any individual faculty member is on leave. We already produce long-range curriculum planning documents for both faculty and students, and we will revise these to ensure they are maximally effective.

The issue of whether GES should recast its curriculum as “Environment and Society” vs “Environmental Studies” is a somewhat philosophical question about department identity. GES faculty are not as concerned as the external reviewers that the “Environmental Studies” moniker necessitates a full GES-based physical geography curriculum. If GES moves toward building a full ES program, it would be linked to numerous different campus units to ensure a full suite of curricular offerings in physical geography, e.g. EPS, Biology. That said, however, “Environmental Studies” does not necessarily capture the full range of what GES offers in environmental, human, and legal geography. This mis-naming has become particularly acute in the last year (including in the months after the site visit), with the transfer into GEs of three faculty from other UNM departments. Although these new arrivals fit well within the interdisciplinary scope of academic Geography, “Geography and Environmental Studies” may not accurately describe for students what the department offers. We will therefore carefully consider questions of scholarly identity, academic mission, and naming at our upcoming retreat in August 2017.

### **Criterion 3: Teaching and Learning: Continuous Improvement**

#### **Overall Findings: Met with Concerns (MC)**

##### **Strengths/Positive Aspects:**

GES uses current evaluation tools and has documented processes that meet expectations for evaluating that program objectives are being attained. The shared learning outcomes for both the BA and BS degrees makes data collection and analysis more straightforward and keeps the programs carefully integrated (at least on paper). It is clear from the self-study that the department is using the data collected to refine their programs, the key goal of assessment to use evidence to “close the loop” and improve programs.

##### **Considerations/Concerns:**

The program goals and student learning outcomes would be improved if they featured measureable outcomes to facilitate better data collection and analysis. For example, how do you measure “...assess the results of a data-driven geographical inquiry.” Or “identify the geographic contexts relevant to an inquiry.” We suggest that with a revision of the mission and vision of the degree programs that writing clearer and less ambiguous learning outcomes and mapping where each “practice of geography” or “perspective of geography” is introduced, developed, and finally assessed.

Several geography departments around the nation have built student portfolios into their assessment plans to build student input and self-reflection into the process. Engaging students more directly in the assessment process and encouraging them to use the existing rubrics to self-assess is recommended to create responsible, life-long learners.

#### **DEPARTMENT RESPONSE**

We have worked diligently over the last decade to improve assessment techniques and link them to our evolving department mission. The external reviewers’ feedback will help us make further revisions in the next round of assessment planning and implementation.

## Criterion 4: Students

### Overall Findings: Met with Concerns (MC)

#### Strengths/Positive Aspects:

Current students clearly express a high degree of satisfaction with the program. Close personal and research relationships exist between faculty and students who are receiving a small liberal arts college experience, it appears, within the confines of an R1 institution. GES adheres to University guidelines and is working to build relationships with external institutions to attract majors. However, we suggest that the department might consider developing “double major” schemes with likely partners, e.g., Latin American Studies, Women’s Studies.

#### Considerations/Concerns:

We are concerned, as is the department, with fluctuations in enrollment in select courses and in the two degree programs. The situation needs further careful analysis and monitoring for short and long-term trends. We are also concerned about the average time to degree. It may be that the department is enrolling students late in their college experience and that that is extending graduation times. The data is not clear; GES needs better metrics to monitor a volatile and potentially explosive situation.

We understand that the MS program is being refined. Students expressed concern about the availability of courses on a regular basis. Better tracking of graduates from the MS program would provide useful information to use in revising courses and programs of study. This is especially important as GES begins its joint PhD program. Finally, there is a significant need for external support from the University for the department to recruit and retain students at BA/BS level. At the same time, GES might better take advantage of existing campus resources. It may require moving some attention from current students to build incoming numbers.

## DEPARTMENT RESPONSE

GES is concerned about how overall trends in decreased enrollment will impact the unit’s programs and contribution to the College and University. After talking internally about these issues for several years, we will use this report as an impetus to undertake a full analysis of trends in course enrollment, majors enrollment, and degree paths. We will use the resulting data to develop detailed plans that address issues of recruitment, retention, and time to degree in both the undergraduate and graduate programs.

## Criterion 5: Faculty

### Overall Findings: Met with Concerns (MC)

#### Strengths/Positive Aspects

The faculty is young, vibrant, enthusiastic, and well-trained. There is a definite sense of departmental loyalty and a stated shared sense of mission. The faculty are deeply engaged with their students, with teaching and with promoting the department. The GES faculty present themselves as a cohesive unit. They pride themselves on being an egalitarian department and engage in shared governance. The current faculty size is sufficient to, in general, meet current enrollment and teaching needs.

The faculty exhibits a strong determination, which will serve them well. To some degree this may be a result of how the faculty came to be, as many are hires of opportunity. This faculty of “misfit toys” (as one faculty member proudly described themselves) is a testament to the power of entrepreneurial attitude and drive. In order to grow the department and the faculty, the department has learned to be nimble and to take advantage of opportunities presented.

The faculty are respected across campus. In interviews with those outside the department it was common for individual faculty to be recognized for their scholarship, teaching, or service.

#### Considerations/Challenges:

This is an energetic faculty and, as noted above, there is a shared sense of mission. However, there may not be a

single vision to achieve that mission. Contributing to this conclusion are a number of observations.

While current faculty size is sufficient to meet enrollment and teaching needs the direction of the program may be being driven by current faculty's specialties and talents, rather than by common purpose. As faculties are dynamic and change in composition over time, we caution over a curriculum built on individuals, rather than program as this may impact long term goals and aspirations of the department.

Faculty research productivity is highly variable and there appears to be a departmental acceptance of these variations. While variation is always the case, the disparity in research productivity in the department may be outside the norm. This is especially a concern for a department wanting to move to the next level - especially the pursuit of a Ph.D. program. We are concerned, not only may this attitude negatively impact the longer term goals of the department, it may be divisive to the long-term cohesiveness of the faculty.

Faculty have devoted much energy to developing the department. Not only is this in terms of service, which is too high, but also in faculty interactions with current students. This may deter GES from moving forward in other areas. For example, alumnae engagement, community engagement, external outreach, and recruitment of new students.

Faculty mentoring in the department is a concern to the committee. While junior faculty think they understand the requirements for promotion and tenure, conversations suggest this may not be the case. Similarly, associate professors are without clear guidance. While the department is loath to quantify expectations, the committee suggests that clarity and guidance is needed (which does not exclude quantification) and expectations need be equivalent across the faculty. The committee also suggests the department take advantage of the experience in the department and that senior faculty take on the mentoring role for tenure track faculty and that the faculty actively take advantage of university resources, including the new ADVANCE grant.

Finally, the department may want to consider the efficacy of their rules of governance that, while providing an incentive for tenured faculty to continue to be active researchers, may have the unintended consequence of too quickly moving faculty to a larger teaching role without a plan in place to provide an avenue back to active research.

## **DEPARTMENT RESPONSE**

As described above in the first section, we will use our August 2017 GES faculty retreat to clarify departmental goals and mission, and to work toward a more programmatic, rather than faculty-specialty-driven, curriculum, to the extent possible. To address other shortcomings identified here, we will discuss the issue of service loads and student-engagement expectations, especially their unevenness and the possibility that they are compromising activities like outreach and development. We will also undertake a review of our workload policy, our approach to mentoring, and our statement of scholarly expectations. The reviewers are certainly right that GES has accommodated a wide range of faculty research productivity and that this is a concern that should be addressed before we launch a PhD program based in a research-intensive approach. All of these issues will be assigned to committees for review and discussion during AY2017-18.

## Criterion 6: Resources and Planning

### Overall Findings: Not Met (NM)

**Strengths/Positive Aspects:** The department is commended for their collective efforts for “doing more with less” in the short run, especially to develop computer labs and other research/teaching facilities, but the review team feels strongly that the current approach is not sustainable in the long run. We note that some GES faculty members are part of the PAIS initiative, which may potentially expand GES’ facilities and space, especially for the GIS faculty and students. Furthermore, the department as a whole has been successful in deploying additional human resources by working closely with the external advisory board to provide guidance in preparing workplace-ready students.

**Considerations/Challenges:** We are concerned about moving the GIS component of GES to the PAIS building. The physical split of a small department in two buildings could potentially cause further social as well as intellectual separation between technical and social science faculty and students. The review team also feels that the current departmental staffing is inadequate (e.g. currently the department has only one full-time staff member) and alternative staffing models are urgently needed. For example, to facilitate faculty’s efforts to seek external funding support for research grants and contracts, the department could offer additional help. Except for a few GIS faculty members, the department has received very limited external funding. The current DA is excellent and dedicated, but temporary and not fully trained or used to meet all the needs of the department. Overall, the growth rate of resources is out of sync with the departmental growth rate, and it has become a major hindrance to fully support the renaissance of the department. To obtain approval for the Ph.D. program and further improve the department’s research profile, the department as a whole needs to intensify its efforts in external funding. The department also needs to work closely with university development officers to reach out to the potential donor community to do a more aggressive fund-raising.

### DEPARTMENT RESPONSE

We agree that a lack of resources hinders achievement of GES department goals, but we also understand the University/College resources are dwindling and GES has a lower priority than departments with PhD programs and/or with high enrollments in service courses. We will continue to work with the College to seek incremental solutions that account for the department’s growth and provide adequate staffing and facilities support. We also agree with the reviewers that there is a potential downside in moving GIScience activities and personnel to the new PAIS space. Given that this is literally the only opportunity to gain access to modern facilities, however, we see no reason not to move and will instead address this directly within the faculty as a challenge to be met through intentional actions to avoid creating a split in the department. Finally, we will develop plans both for (a) working with development officers to generate additional resources, and (b) increasing faculty rates for external funding.

## Criterion 7: Facilities

### Overall Findings: Met with Concerns (MC)

**Strengths:** GES faculty has developed multiple interdisciplinary links with other programs and units on campus, especially their productive collaboration with EDAC in sharing lab spaces. Library facilities seem to be adequate. There is general enthusiasm about the new geospatial library services and collaborations with Library personnel. The review is impressed by the spacious office space for the GES faculty. We also noted that some faculty have taken it on themselves (with permission) to make improvements in the office (e.g. painting).

**Considerations/Challenges:** The office space will not meet needs as the faculty grows, and they do not have space for visitors, affiliated faculty, or temporary instructors. It is not entirely clear to the review team about the relationship between EDAC and GES, which makes their shared space a question in light of the needs of the department for additional lab and administrative space. A department of this size need a central place (e.g. a department lounge or lunch room) for faculty and students to interact in the building. The department map room needs updating and the review team recommends the acquisition of digital databases and maps as part of the collection. The review team noted that some bathroom facilities could potentially be a health hazard and need immediate attention. We also found that departmental IT support is woefully inadequate. Wi-Fi in buildings is ephemeral, and faculty spend too much time doing their own IT support. The university has kept facility maintenance and upgrades to the minimal and the department bears a considerable amount of the maintenance cost from its bare-bones operating budget. The lab manager is supported through student course fees and that may not be sustainable given competing personnel and hardware/software needs.

### DEPARTMENT RESPONSE

GES will continue working with EDAC to request a Space Needs Assessment for both Bandelier East and Bandelier West, to address the issues identified here. We are unlikely to develop the map room as a separate resource, given that most of the paper maps are owned by EDAC, and digital resources are developed at this point through the Spatial Computing Lab. We have begun addressing a number of facilities issues, with PPD's help, in summer 2017 and will continue requesting assistance to address critical issues as they arise, including bathrooms. Although we cannot control the prioritization and decisions made by UNM's Central IT, we will continue to develop the staff IT position that is currently funded by student fees. If a portion of this salary can be covered by research funds or by the planned Geospatial Entrepreneurship online program, we will not only be able to pay a more competitive salary, but we will also be able to use this staff resource more broadly to support research and faculty needs beyond the student computing lab.

## Criterion 8: Peer Comparisons

### Overall Findings: Met with Concerns (MC)

**Strengths:** The review team is impressed by students' high morale. Students strongly feel that faculty cares about them, and there is a strong sense of community. Students are successful coming out of this program and are well-placed in a number of important positions in both private and public sectors across the state and nation. Graduate applications are strong and the master's program is attracting high quality applicants who would be competitive at peer and aspirational institutions. Many faculty compete well with peer and aspirational faculty in terms of research and key leadership roles in professional associations.

**Considerations/Challenges:** In comparison with peer institution, UNM has huge deficits in institutional services and support is inadequate to bring the department to the next level. College leadership has recognized the department's good citizenship and the important role the department can and has played across campus. That role may be diminished by a lack of resources. Furthermore, good citizenship has not resulted in increased support for the department. Senior department leadership needs to be more assertive in negotiating a better status for the department. The College should better allocate resources to meet minimal departmental needs. The ability to attract and retain high quality faculty will depend on the institution of a PhD program. Infrastructure, facilities, and lab equipment is inadequate compared to peer institutions. The department needs to work together to identify key peer institutions to enable meaningful comparisons in order to have a clearer vision for the department for the next 5-10 years.

### DEPARTMENT RESPONSE

Prior to the APR process, GES had not engaged in direct peer comparisons or used them as a metric for department success. Our first effort with this strategy, as reflected in the self-study report, was fairly crude and did not allow for a meaningful exploration of peer comparison. Starting in AY2017-18, we will assign a committee to identify peer institutions that we can track for the next 5-10 years. In the following year, we will develop metrics that can be used for this tracking purpose, and then we will begin a more sustained process of self-comparison to peers in the following year. We envision that this will eventually become a critical part of our planning process and that it may include more intensive activities (e.g. site visits) that allow us to go beyond the current method of simply using professional networks and word-of-mouth to gauge how well we are doing.

## Criterion 9: Future Direction

### Overall Findings: Met with Concerns (MC)

#### Strengths/Positive Aspects:

The committee is impressed with the drive and tenacity exhibited by the department. Further, the department successfully acted on the previous APR recommendations and engaged in strategic planning. The department exhibits a forward thinking attitude with a focus on growth and expansion, including the Ph.D. program. The committee observes that the department has succeeded through sheer grit, perseverance, determination, and faculty sacrifice. Since the last APR, the department has had strong leadership through a succession of chairs, each of which has moved the department forward. The current chair, Maria Lane, has managed, as a young inexperienced chair, to move the department to a new level. This collective leadership positions the department to move to a higher level.

**Concerns/Challenges:**

The committee recognizes the faculty's energy, effort, focus, and devotion that has allowed the department to get to where it is today. However, this is unsustainable. A new GES strategic plan based not only a shared mission, but with a well-developed single vision for the future direction is needed.

GES is fully aware of its strengths and weaknesses but appears unable to set priorities. This is understandable, as the department has been so consumed with meeting short term "survival" needs they may not be able to fully envision the future. The review team is concerned that the faculty may find it difficult to move from this survival mode to implementation of future goals. A clear set of departmental priorities and action items are necessary, some which may require faculty realignment of effort and focus.

The review team also notes that the department has grown through fortuitous hires. This has served the department well and has allowed the program to gain the faculty strength that it has today. But a movement from survival to strategic mode suggests the department may be well served by turning their attention to planned hires. As noted earlier, the current faculty size is sufficient to, in general, meet present enrollment and teaching needs. Thus, the committee suggests hires of opportunity be assessed with the same scrutiny as a national search for a strategic hire, as there are both benefits and costs to new faculty.

While the faculty rhetorically speaks of a shared vision, the reality appears otherwise. For example, individual faculty members disagree about the value of so-called "contract" work as opposed to "research" projects. It is often very difficult to distinguish between the two endeavors in terms of financial and intellectual benefit to the department. A second example is that while faculty strive for integration across the human and technical tracks, the results may not be as bi-directional as necessary. Further, the move to expand the departmental name may have inadvertently resulted in a program inconsistent with national norms. Clearly defining peer and aspirational institutions and analyzing the characteristics of these two separate groups may be a starting point in developing a new strategic plan.

A first step in moving towards a new strategic plan for a department that has, in many cases, defied the odds and become a vibrant, strong contributor to UNM, may be, in the humble opinion of the review committee, a facilitated, off-campus, faculty retreat that provides the department with an opportunity to clearly assess and redefine (if necessary) the mission of the department, but more importantly to define and gain faculty consensus of a unified vision and the actions, requirements, and responsibilities of the faculty to achieve the departmental goals.

**DEPARTMENT RESPONSE**

At our August 2017 faculty retreat, we will take up these issues of mission, focus, and strategic direction. This is critical at this particular moment, when we have gained six new faculty members in a mere 12 months, while losing two others to retirement and resignation. We have already re-worked our faculty hiring plan to reflect the need for additional GIScience teaching/research capacity before the PhD program can launch. This year, we will strategically evaluate our overall approach to hiring, addressing the issue of opportunistic versus programmatic hiring priorities.

**Overview of Review Findings:****Findings on strengths and shortcomings:**

- Since the last APR, the department has enjoyed strong, driven leadership.
- The department has done a great deal expanding faculty, developing new programs, and building computer labs with very limited resources. This includes an expansion of faculty, program and movement towards a Ph.D.
- Student morale and enthusiasm for the program is very high.
- GES is a collegial and energetic cohesive unit. They pride themselves on being an egalitarian department and engage in shared governance. This may be, in part due to the fact that the department has come together largely through opportunity hires, resulting in a strong bond between the faculty.

- GES has been entrepreneurial and nimble. Because of these attributes, they will survive the current budget crisis as well as any other threats, such as changes in the core curriculum.
- Across campus there is strong support for the department to succeed and respect for Dr. Lane as chair.
- GES exhibits innovative and future-oriented thinking as seen in the proposal for a joint PhD program with NMSU.
- Research in GES is on the upswing. They are developing a research culture in a positive trajectory. Research is interdisciplinary and faculty collaborate extensively across campus. Their research spans from technical, practical, and applied to highly theoretical contributions.
- GES has reached out both internally (affiliated faculty) and externally (advisory board) to build partnerships and support mechanisms.

**Considerations:***(issues we have identified and would like the department to consider)*

- Refocus the mission from “Environmental Studies” to “Environment and Society” to reflect the strengths of the department, or seek resources to include the traditional physical geography portion of environmental studies. In the self-study GES’s mission was described as, “...teaching and research in human geography and the environment.” The program description identified one degree as “a social science focus on human-environment interaction.” That is not what is considered classically an environmental studies program. The purpose of the name change as explained on page 41 of the self-study has not worked well five years on from its inception.
- Switch from opportunity hires to strategic hires. While GES has grown through fortuitous hires, it is not without a cost of leading to unfocused decision-making.
- Develop explicit guidelines and expectations for junior faculty for T&P that are consistent across the departmental specialties.
- Refine the curriculum and build structure into it in order to have a more orderly scope and sequence or course work.
- Design a two- to three-year academic master plan of course offerings and faculty teaching assignments to allow students and faculty to develop long-range plans and map out degree plans rationally.
- Identify key peer institutions to enable clear comparisons to have a clearer vision of current comparison or aspirational
- Work with development officers to improve fund raising activities.

**The department is on the cusp of moving to the next level. Factors affecting this transition include:**

- Developing a shared departmental vision for the next five years;
- Improving the balance of resources (human and capital);
- Developing and using senior leadership in more productive capacities; and
- Shifting from reactive to proactive actions. GES needs to prioritize actions aligned to the departmental vision.

**DEPARTMENT RESPONSE**

As described in the sections above, we largely agree with the findings of the external review team and appreciate the many insights contained in their commendations and recommendations. We will take up all of the issues identified above as “considerations” and will begin to address them in the 2017-18 academic year. The first step is a reconsideration of department mission and scope, which will be undertaken in the August 2017 faculty retreat.