January 11, 2011

Dr. Lauren B. Adamson, Dean and Regents Professor
College of Arts and Sciences
Georgia State University
CAMPUS MAIL

Subject: Academic Program Review for Department of Geosciences (GEOS).

Dear Dean Adamson,

On behalf of the Department of Geosciences, I am pleased to convey herewith the Geosciences Self Study required for Academic Program Review which is the first Academic Program Review Self Study for Geosciences. The Department of Geosciences formed in January 2006 from the former Department of Geology and the Geography program of the former Department of Anthropology and Geography. Since its formation, the unit has been moving forward in creating a functional unit while the individual GEOS faculty members continue to strive toward excellence in instruction and research endeavors. I offer my genuine thanks to Dr. Jeremy E. Diem, Dr. Seth E. Rose and Dr. Leslie A. Edwards for compiling this self study. Dr. Diem shouldered much of the effort. The Self Study was approved by Geosciences Faculty members on January 7, 2010. This Self Study reports on Geosciences for FY 2008 through FY 2010. I highlight below several important findings derived from this Self Study.

Relative to our peer departments chosen for this Self Study, GEOS teaches a considerable number of students (Table B7) and produces a larger research output in terms of papers as lead author and research articles per tenure-track faculty member (Table F2). GEOS’ roles in professional service are extensive including two editors-in-chief, several associate editors, and four national faculty honors. GEOS has three significant externally funded projects (US Dept. of Energy, NASA (Co-I) and NSF (CO-I). The unit has done well with internal grants (RIG) and this investment is starting to pay off with the anticipated arrival of several new grants (NSF, American Chemical Society, and NIH (as Co-I) to two Assistant Professors. An interesting finding is that the GEOS faculty cohort is not apparently satisfied with this level of research performance during the study period based on the polled data and this faculty group clearly thinks it can increase its productivity (Section F and OIR Faculty Survey). The GEOS faculty group is an ambitious group with realistic expectations and I trust the University will agree and want to support and reward our efforts to improve an already good level of performance.

GEOS teaches a considerable number of students at the introductory courses having lab sections. A high percentage of these courses/credit hours are taught by regular faculty members (tenure-track and lecturers). Introduction to Human Geography is taught for the
most part by a visiting instructor whose instruction is well regarded. The overall instructional effort is bearing fruit as seen by increasing numbers of undergraduate majors in GEOS. GEOS also contributes to the education of teachers through its instruction of eight sections of Integrated Science Curriculum Instruction (ISCI), one section of Natural Science Curriculum Instruction (NSCI), and one section of Georgia On My Line (GOML) on line M.S. degree in Science Education (the latter not mentioned in the self study) per year. Again, a high percentage of this instruction is done by regular faculty members and the quality of these instructional efforts is uniformly high.

While GEOS is teaching a large number of courses at the introductory level and contributes to teacher training with GSU College of Education, the credit hour generation in courses at the graduate level and majors has also increased during the study period (Table B8). The increase in graduate enrollment is significant in that our stipends are not nationally competitive. Though we attract a good cohort, we are confident that we can improve the number and quality of graduate students by offering higher stipends. There is some dissatisfaction raised by majors and graduate students of not having a larger variety of upper-division major courses and wanting more graduate-only courses. Our ability to offer the courses to our graduate students and majors, while meeting our aforementioned and increasing obligations in Area D courses, requires creative scheduling to maximize the number of offerings, having all our faculty positions filled, and continued improvement of our recruitment of majors and graduate students. The improvement of recruitment efforts is a stated goal for GEOS (Goal 2, Section H). Despite this dissatisfaction stemming from not having a larger variety of courses for majors and not enough graduate-only courses, our students are very satisfied based on the polled data with their overall education in GEOS and they find that they are able to seek and obtain responsible and gainful employment and are able to gain entry into good graduate degree programs elsewhere after completing their degree requirements in GEOS at GSU. In line with the need to define better learning outcomes and their assessment, the unit plans to discontinue the present degree programs and offer a combined B.S. degree in Geosciences, possibly a B.A. degree in Geosciences, and a combined M.S. degree in Geosciences.

We are currently searching for a full time lecturer (a conversion of visiting line) as well as a tenure-track faculty member in Geoscience Education (formerly held by Dr. Pamela C. Burnley now at UNLV). GEOS has additional vacancies caused by the recent departure of Dr. Dona J. Stewart, Dr. Timothy E. La Tour’s retirement, and Dr. Jeremy W. Crampton’s recently announced resignation effective for June, 2011). Moreover, this Self study notes a considerable turnover in faculty members since the self studies in the first cycle. The reasons for departures are varied and only a relatively small number of these departures are due to retirement from GSU. The Self Study correctly identifies the retention of a stable cohort to be a necessary goal over and above filling the open positions. This Self Study correctly identifies retention of a stable cohort of faculty members to be an important goal.

GEOS has spent considerable effort in building to critical mass our faculty strengths in the Geosciences in both geography and geology disciplines from which the synergies are
then defined for Geosciences. The Self Study notes the lack of a coherent plan or strategy beyond the immediate effort of building the unit by strengthening both disciplines. The departures mentioned above are frustrating but the losses present also an opportunity to define the intellectual directions in Geosciences that make sense in terms of both the GSU strategic plan being developed as well as our strengths and facilities in GEOS. We want these new directions to result in increased growth in both research productivity and funding opportunities and successes. We have extensive instructional/research facilities in Geographic Information Systems, analytical geochemical and mineralogical facilities, and developing strengths in areas such as informatics, climate change and climate change education, and a strengthening partnership with the Institute of Public Health. While this Self Study is under review, GEOS will begin these discussions to identify instructional and research directions and priorities in the Geosciences at GSU.

Overall, I agree with the goals in Section H derived from the Self Study. The goals offered in section H follow well from the Self Study data and these are good and reachable goals for GEOS. In particular, the goals for furtherance of the merge (reconfigured degree programs), retention of a stable faculty cohort, continued increase in majors and graduate students, for increased extramural support, improved learning assessment are reasonable and move GEOS forward.

I offer my sincere thanks to the GEOS faculty members, Dr. Diem in particular, for compiling the document. Please contact us if we can be of further assistance to the review committees.

Sincerely,

W. Crawford Elliott
Associate Professor and Chair