

IUPUI GAC Reviewer Form

Reviewer:

School:

Department:

Email:

Date Reviewed:

March 18, 2008

Documents Reviewed:

Proposal for Ph.D. in Applied Earth Sciences (and related documents)

Summary of Proposal:

1. Are the goals clear and achievable?

This is a new (first-in-the-nation) interdisciplinary Ph.D. program, and it draws on the fields of geology, biology, and chemistry seeks “to explore the complex interactions that exist in the interface between the earth’s surface and the organisms, including human, who occupy it” (pg. 3). The program seeks to prepare students for academic positions, as well as positions in environmentally-related organizations and agencies. The program goals, further outlined on pages 6-7 of the proposal, seem clear and consistent with doctoral-level work. Further, the resources, letters of support, and due diligence on the part of the department would signal that these goals are achievable.

2. Is the program academically sound?

This proposal appears to be academically sound. It requires 90 credits beyond the baccalaureate degree, prescribes appropriate undergraduate disciplinary preparation/prerequisites, and permits the use of up to 30 credits from a related master’s degree. The proposed curriculum, outlined on pages 8-11 of the proposal, delineates the program into three central components: core courses (18 credits); specialization courses (21 credits); and dissertation (51 credits).

The proposal notes that “students will be expected to utilize cross-disciplinary methods as they pursue original research in applied environmental sciences” (pg. 10). The proposal further describes the

approaches to qualifying exams and research committee composition. A main question is the sheer number of dissertation credits that this program includes (51 credits). While such a high number may be appropriate to the discipline and necessary—especially in such an interdisciplinary program—it might be clearer for the proposal to reflect some of the research tools and approaches students are asked to master.

3. Are faculty resources available to offer this program without undercutting other key missions of the unit?

Given the interdisciplinary nature of this program, and the modest numbers of students to be admitted each year, it would appear that there are appropriate resources available to support this program. Indeed, this Ph.D. program seems to be a natural “next step” for the department, school, and campus. Many faculty have received external funding, have served on thesis/dissertation committees in other departments, and have been involved in editorial leadership positions in their disciplines. Thus, there appears a growing capacity to support doctoral-level students at the department level.

4. Is there overlap, either real or potential, with any other unit that could harm the program or be exploited to help the program?

The proposal highlights the many resources on the IUPUI campus that can be used to help the program succeed. On pages 11-14 of the proposal, many on-campus programs/Centers and local field-based research sites are identified as potential learning resources for students. The letters of support from related programs helps to provide explanation around sufficient differentiation for this particular program. Indeed, other complementary programs at IUPUI will likely benefit from the courses and research opportunities that this new Ph.D. program can offer to them.

5. My recommendation, comments/concerns regarding this proposal...

The proposal speaks clearly to the demand, resources, prerequisites, partnerships, and other positive components for a new Ph.D., and the interdisciplinary nature of the program is an attractive feature. This reviewer recommends approval, but, as noted above, encourages the department to be more descriptive in how the dissertation credits will be delineated in supporting the program’s goals.