Date	January 29, 2009
From	David DiBiase
To	Alex Klippel, MGIS Program Chairperson
Subject	Peer review of teaching for Robert Smith – GEOG 543: GIS Applications in Archeology

It's been my pleasure to review evidence of Bob Smith's teaching in the Fall 2009 offering of GEOG 543: GIS Applications in Archeology. Bob and I met to discuss this review today, January 29.

GEOG 543 is an elective course in the GIS Certificate and Masters degree programs offered through the World Campus. The Fall 2009 offering attracted nine students.

Before considering Bob's teaching style and results let me briefly describe the structure of the course that distant students encounter online.

The Fall 2009 instance of GEOG 543 was presented to students in two parallel learning environments—a password-protected section in the University's ANGEL course management system and courseware deployed through the College of EMS' Drupal content management system as part of the College's Open Educational Resources initiative (http://open.ems.psu.edu/courseware). The ANGEL section provides an assignment schedule, assessment surveys and self-assessment quizzes, and communication tools including discussion fora and email. The open courseware includes 49 original HTML pages organized in six lessons. The lesson text is well written and helpfully illustrated with many tabular examples. The open courseware site also includes an up-to-date syllabus and orientation materials.

As recommended in the Institute's Peer Review Guide for Online Courses, my review is organized under seven headings corresponding to Chickering's and Gamson's Seven Principles for Good Practice.

1. Encourages contact between students and faculty

The volume of messages and high participation rate indicate that students felt comfortable contacting Bob. I only had access to questions and answers exchanged in discussion forums not the private exchanges between the instructor and students in the ANGEL email system.

Bob provided an ANGEL discussion for each of the six lessons, as well as for the course orientation and final project. Some lessons generated more discussion than others, and students were more or less communicative, but nearly all students participated at one time or another. I was also impressed that the discussion increased as the course progressed; in other online classes the opposite is the case. However, one student commented in the World Campus end-course evaluation that "there was little interaction on the discussion board, and I expected more interaction with students and teachers." This student may have been reacting to the "question-and-answer" nature of most forum discussions.

Assessment surveys – including pre-course, mid-course and post-course evaluation surveys – were present but hidden under ANGEL lessons tab. This seems like a missed opportunity to get to know students' backgrounds and to assess their feelings about their course and their progress in it while the course was still underway. I recommend that Bob consider revising the assessment surveys so that they include fewer but more pertinent questions. Aggregate responses to surveys make effective icebreakers for class discussions and can help build camaraderie among

students. An important subtext of the assessment surveys is to express the instructor's concern about his students. Such expressions can be effective, I think, in encouraging contact between students and faculty.

Although students were allowed to post comments to the open courseware, I did not find many.

2. Good practice develops reciprocity and cooperation among students

Bob allows, but does not require, students to work in small teams to fulfill the final project assignments. This optional approach to teamwork is appropriate for kind of students we teach (older, working full-time, dispersed across time zones). Apparently none of the nine students enrolled in this term opted for group work.

In the course orientation, students were encouraged to share professional profiles and reflections on their learning experiences through personal e-portfolios. These were available as links from the Course Roster under the Communicate tab in ANGEL. At the time of this review, seven of nine students have links to e-portfolios, and six of these exhibit their project work. Since I don't have access to private correspondence among students I can't tell if Bob's encouragement was effective in encouraging cooperation and esprit.

Evidence from the end-of-course evaluation survey conducted by the World Campus suggests that the discussion forums were not helpful in this regard: the mean rating of student responses to the question "rate your satisfaction with course discussions as a way to create a sense of community in the class" was only 3.75 out of 7 – though the response rate was only 44% and the standard deviation was 2.22. However, I see many examples of students helping their peers in the discussion forums for lessons 5 and the final project. This is usually a good sign about an online class' collaborative atmosphere.

3. Good practice encourages active learning

Students cannot achieve the educational objectives of Bob's class by reading the text and passing quizzes. Project assignments and associated documentation count for 70% of students' course grades.

4. Good practice gives prompt feedback

Bob typically responded within hours to student questions posted in the busiest discussion forums (lesson 5 and final project). However, a few students seemed to be somewhat dissatisfied with Bob's turn-around time in grading assignments: in the end-course evaluation survey conducted by the World Campus, student responses to the question "rate the timeliness of feedback you received from the graders in response to assignments you submitted" ranged from 4 out of 7 to 6 out of 7; the mean response was 4.75 out of 7. Their mean rating of the "quality of feedback" received was 5.75 out of 7, however.

5. Good practice emphasizes time on task

In the end-course survey students were asked to estimate the time per week they devoted to their studies. One respondent chose "9-12 hours," two chose "13-16 hours," and one other estimated "more than 16 hours." Activity logs recorded in the ANGEL course management system confirm that Bob's course demands substantial and sustained time-on-task. However, actual workloads seem to be in line with the "10-12 hours of student activity each week" that the syllabus warns students to expect. Three of four respondents to the end-course survey rated the workload as "just about the right amount of work." None complained that the required time on task was insufficient.

6. Communicates high expectations

The end-course survey indicates that respondents felt "well informed about course objectives, policies and due dates" (mean rating 6.25 out of 7). At the outset Bob warned students that the

class would be demanding, but worthwhile. Bob also insisted that assignments be delivered on schedule. This expectation may explain why eight of nine students successfully completed the course despite its rigors.

7. Respects diverse talents and ways of learning

Although the class objectives are focused on programming skills, students were opportunities to learn through interactive quizzes (worth 30% of course grade). One student commented that "I liked the real world examples and the flexibility of the deliverable for lessons … there was enough room for creativity." Another stated "the sample project and supplementary training materials were very helpful." On the other hand, another student requested "online lectures as opposed to just text and discussion forums."

Summary

Bob Smith is a key asset to the Penn State Online GIS Certificate and Masters degree programs. The "archeology" class is an innovative response to contemporary trends in the geospatial field. Evidence of his performance – as well as his students' – in the Fall 2009 offering of GEOG 543 demonstrates good teaching practice in relation to all seven of Chickering's and Gamson's principles. Students' average rating of the "overall quality of the course" was 6.0 out of 7.0. Opportunities for improvement include (1) use of succinct assessment surveys as means to demonstrate concern for student welfare and to encourage interaction; (2) manage expectations about delivery of feedback to student assignments; (3) consider alternative channels to stimulate interaction among students and instructor, such as occasional optional toll-free teleconferences; and especially (4) insist on higher rates of response to end-course evaluation surveys conducted by the World Campus. These results are needed for annual requests for permission to teach graduate courses.