Final Report on Assessment Grant (Physics)

(i) What was your project about?

The project was to give our graduating undergraduates the Educational Testing Services (ETS) Major Field Achievement Test (MFAT). This is a test of how much undergraduates in a particular discipline have learned. It is essentially a Graduate Record Exam (GRE) for undergraduates. We also requested funds to pay for our graduating MS students to take the Physics Subject GRE test. Both of these tests are in our assessment plan.

(ii) What did you do?

We ordered and gave the MFAT to our six graduating undergraduates. All the MS students who had planned to graduate during the time frame of the grant ended up extending their stay in graduate school. Thus we had no graduate students who were ready to take the GRE.

(iii) Why did you do it?

Both the MFAT and GRE are in our undergraduate and graduate assessment plans.

(iv) What did you want to find out or what were you trying to measure and for what purpose?

We wanted to determine the breadth and depth of physics knowledge of our graduating students, both BS and MS.

(v) Did you run into any problems?

There were no problems with the administration of the MFAT. However since all our MS students who had expected to graduate extended their stay we were not able to administer the GRE.

(vi) If so, what were they and how did you resolve them (assuming that you did. If you didn't resolve them, is there something that would help?).

There was nothing that could be done. The MS students all had good reasons for extending their time in graduate school. Given the unpredictable nature of research it is often hard to determine exact
graduation dates for MS students. Thus there is nothing that can be done.

(vii) What were your findings?

*Our undergraduates in general receive a solid education in physics. The weakest scores were in the area of thermodynamics.*

(viii) How did you use the findings or how are you planning to use them?

*We want to try and upgrade our undergraduate thermodynamics course.*