Program Assessment Report (PAR) on Completed Assessment

Year 1 [2014/2015] ~ Program: Mathematics, B.S.

1. Which set of PLOs was assessed this academic year (identify each PLO)?
   
   1. Demonstrate college-level knowledge in foundational mathematics
   2. Demonstrate college-level knowledge in algebra/geometry

2. Describe the assessment activities below. Please provide enough detail to convey the nature of the activities.

   Reviewed Item Information Reports from the ETS Major Field Test, which provides comparison of our students' percent correct for each question with national results. The differences of percentages for our students minus national results were studied. The differences are listed below in (3) in decreasing order.

3. What were the results of the assessment activities?

   Calculus: 29.3; 23.7; 17.8; 12.2; 11.2; 10.8; 10.6; 4.3; 2.4; -0.8; -1.6; -3.1; -4.8; and -6.6.
   Abstract Algebra: 45.2; 30.2; 20.4; 18.9; 13.8; and -0.5.
   Vector Spaces: 18.3; 7.2; 5.8; -3.9; -6.4; and -15.2.
   Linear Systems: 5.1; 1.0; and -3.1.

   We are succeeding with the PLO “Demonstrate college-level knowledge in foundational mathematics.” as indicated by the Calculus and Linear Systems results. We are also succeeding with the PLO “Demonstrate college-level knowledge in algebra/geometry.” as indicated by the Abstract Algebra and Vector Spaces results. However, the Vector Spaces results indicate that there is room for improvement.

4. Where applicable, outline the steps you will take to make improvements to the program based on the results of assessment activities identified in #3.

   Investigate the feasibility of introducing a second semester of Linear Algebra to help improve the Vector Spaces results. The second semester of Modern Algebra likely goes a long way in explaining the discrepancy between the quality of the Abstract Algebra results versus the quality of the Vector Spaces results.

5. Are there any new resources needed to make program improvements? If so, please include the resources and provide justification for each in the Budget section of the Annual Report.

   No.

*Submit to Ms. Rebecca Haggerty (Rebecca.haggerty@scranton.edu) with a notation in your Annual Report that “Program Assessment Report(s) (PAR) has been submitted under separate cover.”