

## PROGRAM REVIEW REPORT TO BOARD OF REGENTS

*Due 30 days following receipt of the External and Internal Reviewers' Report.*  
**This form is available electronically.**

*This report is filed with the Board of Regents Office. All units/programs undergoing an accreditation review, nationally recognized review process or institutional program review need complete this form. The Dean or Department Head must approve this report and submit it to Academic Evaluation and Assessment for approval and submission to the Board of Regents.*

Institution: Dakota State University

Department or School: College of Arts and Sciences

Program(s) Reviewed: B.S. in Physical Science

Date of Review: April 21, 2015

Please identify the program reviewers and any external accrediting body:

Dr. Kelly Dilliard, Professor of Earth Science, Wayne State University

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Items A & B should address the following issues: mission centrality, program quality, cost, program productivity, plans for the future, and assessment of progress.

A. Describe the strengths and weaknesses identified by the reviewers.

The Reviewer was impressed with the faculty involved in the Physical Science degree program, Associate Professor Barbara Szczerbinska and Assistant Professor Michael Gaylor. They have done much to recruit and retain students into the program and into STEM across the University with programs such as the STEM Institute, the NOBEL Conferences, the General Beadle Honors Program, and fomenting and supporting student involvement in research, grants, and graduate school programs.

B. Briefly summarize the review recommendations.

The reviewer recommended increasing enrollment via greater awareness of our program, strengthening ties to other state universities in the South Dakota public university system, and a program similar to one Nebraska employs for its smaller state universities.

C. Indicate the present and continuing actions to be taken by the college or department to address the issues raised by the review. What outcomes are anticipated as a result of these actions?

Shared science courses with Black Hills State University has been limited due to the desire of students to enroll in face to face classes on our campus. Therefore, most of the collaboration has come through opportunities for advanced students to conduct research, be employed at the Sanford Underground Research Facilities under the auspices of Black Hills State, or dissertation committee membership and other less formal mentorship for students.

The Reviewer mentioned Chemistry Laboratory issues both with equipment and having the expertise to manage the work. We will work with USD and SDSU in seeking out a suitable teaching assistant to support Chemistry Laboratory instruction. The Reviewer also noted the hood issue and at this time, we will limit the students in each lab in order to maintain safety. Funding for Chemistry and Physics Labs is sufficient and in the past three years has purchased a mass spectrometer, precision microscopes, and all requested consumables.

Nebraska's Rural Health Opportunities Program, or RHOP, mentioned by the Reviewer is something South Dakota should explore. Our Physical Sciences program has low enrollment, but is maintained due to the critical need for STEM. Each year, DSU loses promising students due to mistaken belief that one can't go on to medical school from DSU. Dakota State's Physical Science program has empowering low student to professor ratios, growing success for undergraduate research, and could lead to students becoming very successful in medical school. If South Dakota devised a similar opportunity where DSU, NSU, and BHSU were promised entry at USD's Medical School for qualified students, we could all entice more students for a quality education.

Reviewed by: Benjamin Jones  
Dr. Benjamin Jones, Dean, College of Arts and Sciences

Approved by: Judy Dittman  
Dr. Judy Dittman, Vice President for Academic Affairs