

Comprehensive Program Review

Self-Assessment Report

Columbus State University

College of Letters and Sciences

Department of Earth and Space Sciences

BS Earth and Space Sciences, 2016-2017

EXECUTIVE SUMMARY FOR THE
BS EARTH AND SPACE SCIENCES DEGREE

Major Findings of the Program's Quality and Productivity

This detailed self-study of the BS Earth and Space Sciences program assesses key indicators of program quality and productivity as specified in the institution's Comprehensive Program Review procedures. Rating categories for each indicator are assigned as Very Strong, Above Average, Satisfactory, Below Average, or Very Weak. Indicators rated as Very Strong or Above Average are listed as program strengths, while indicators rated as Satisfactory are listed as program weaknesses. In our self-assessment, we did not identify any program indicator as Below Average or Very Weak.

The BS Earth and Space Sciences degree in the Department of Earth and Space Sciences (ESS) is, in essence, 4 concentrations under one "umbrella" degree offered by a group of well qualified, well respected, and highly productive faculty. The program ranks in the top 3 Earth and Space Science programs in the state in terms of conferred degrees – and in fact is only outperformed in this area by 2 research institutions (University of Georgia and Georgia State University). This feat is especially impressive considering that over 90% of all ESS instruction is in 1000 and 2000-level core instruction – and that ESS faculty maintain active research programs which engage undergraduates in collaborative (and often published) projects. Program quality is evident in overall alumni satisfaction with the program and successful placement of graduates in post-baccalaureate employment and graduate school. Concerns with the program include long-term retention of faculty without increases in salary and adjustments in workload; improvement of faculty diversity; weaknesses in formalized, broad-based outreach efforts to the community; weaknesses in formalized alumni engagement; needed improvements in laboratory equipment; potential issues with retention and/or analysis of student retention indicators; and a lack of a formalized assessment tool for student learning outcomes.

Program Strengths with Respect to Quality

- Quality of Teaching
- Quality of Research and Scholarship
- Quality of Student and Faculty Achievement
- Quality of Curriculum

Program Weaknesses with Respect to Quality

- Quality of Faculty
- Quality of Service
- Quality of Facilities and Equipment

Program Strengths with Respect to Productivity

- Enrollment for the Past 5 Years
- Degrees Awarded for the Past 5 Years
- Comparison with CSU and USG Programs
- Graduation Rate
- Cost Effectiveness of Instructional Delivery

Program Weaknesses with Respect to Productivity

- Retention Rates
- Student Learning Indicators

List of Recommendations for Improving Program Quality

- Create manageable teaching loads for faculty involved in the BS program in order to enhance student-faculty engagement, provide more time for professional development, and enhance external funding pursuits – which has the potential to improve facilities and equipment and, therefore, student-faculty engagement. Concerns over faculty teaching workload were also expressed in the external reviewer report.
- Improve gender and race/ethnic diversity in the department where possible, specifically through new faculty lines which support existing degree concentrations –with the potential for adding new degree options. Strategic new faculty lines will also allow for more effective scheduling of upper level undergraduate courses and the addition of new course, as noted in the external reviewer’s report.
- Increase faculty development funds to allow for a greater range of professional development opportunities; subsequently improving teaching and student-faculty engagement.
- Increase salaries for faculty earning less than those at peer institutions – especially those faculty hired since the collapse of state budgets at the onset of the Great Recession in 2008.
- Implementation of a peer-based classroom evaluation system and improved mentoring of new faculty.
- Improve community service and departmental marketing efforts through formalized K-12 outreach efforts.
- Improve alumni relations through an annual departmental newsletter.

List of Recommendations for Improving Program Productivity

- Develop better assessment tools for gauging student retention rates, which are not accurately reflected using the standard comparison of first time, full-time freshman cohorts.
 - Develop and/or adopt tools for assessing the quality of discipline-specific ESS curriculum and student learning from both an internal (time dependent) and external (e.g. certification assessments) perspective.
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