The program review process has confirmed the strength of the Chemistry Department and its many contributions to the University—especially in the areas of graduate education and research. Development of a niche doctoral program in photochemical science and a Center for Photochemical Sciences have been critical to the department’s success and created opportunities for further growth. While several faculty whose research lies outside photochemical science have established successful research programs, the department’s focus on photochemical science has paid significant dividends—generating significant external funding, building an impressive research infrastructure, attracting high quality graduate students, and earning international recognition. Given the department’s strength and the close relationship between its research programs and the state’s economic development priorities (as reflected in the Third Frontier), the department is well-positioned for growth and further success.

The department is to be commended for developing a tightly focused, internationally respected doctoral program. In many ways, it serves as a model of the kind of Ph.D. programs we hope to foster. Given the small size of the faculty and limited physical space available, the department has established a record of research that has attracted significant external funding. Especially gratifying is the success in recent years of several junior and mid-career faculty members—individuals who are critical to the program’s future. Also notable are recent grants to build infrastructure; these should sustain further growth in research and external funding.

While the department has established a good record, it faces challenges in several areas. The number of undergraduate majors has shrunk in recent years—a worrisome development reflected in other science departments at BGSU and across the nation. Moreover, the undergraduate curriculum and the department’s general education courses need review and revision. Even in the areas of greatest success—graduate education and research—the department faces challenges. While it has recruited very good graduate students, it has relied too heavily on international students and should achieve a better balance between international and domestic students. In addition, as successful as faculty have been in securing grants, the department’s level of external support is not yet where it should be—and, more to the point, where it needs to be if we are to remain competitive.

In his response, Dr. Michael Ogawa, the department chair, accepts the Program Review Committee’s findings and recommendations. Like Dr. Ogawa, I accept all of the committee’s findings and recommendations, but wish to elaborate on several of the recommendations:

The College has already begun the process of rebuilding the faculty, authorizing two replacement positions for the coming year—a physical chemist who will provide leadership for the Ohio Laboratory for Kinetic Spectrometry and an instructor in organic chemistry who can meet teaching needs in a vital area—in addition to reauthorizing the search for an Eminent Scholar. I look forward to meeting this fall with Dr. Ogawa and Dr. Heinz Bulmahn, Vice Provost for Research, to develop a plan for meeting faculty personnel needs. As the Program
Review Committee Report suggests, the College will not commit itself to a specific number of new positions. The number of additional faculty hired must ultimately be determined by available resources (which are difficult to predict) and the department’s success in significantly expanding external funding and achieving other recommendations in the Program Review Committee’s report. Nevertheless, any hiring plan should identify priorities that build on existing strength and open new areas of research that will position the department to take advantage of new opportunities in a dynamic field.

Research space may be the most difficult issue to address, at least in the short-run. However, it is critical to do so if we are to recruit new faculty and help them become successful. Bob Waddle, Assistant Vice President for Capital Planning, must be an integral part of any discussions concerning space. Moreover, planning will involve careful examination of the use of existing space already assigned to the department as well as space in Overman Hall and the Physical Science Lab Building.

I encourage the department to expedite its review of the undergraduate curriculum. If a review is concluded in June 2006, as the Program Review Committee suggests, a new curriculum is not likely to be in place until fall 2007 at the earliest. I urge the department to complete its review by summer 2005. Moreover, as the review proceeds, I encourage it to hire consultants to provide advice, make us aware of best practices, and react to proposed changes.

Developing contemporary, engaging science courses for non-majors is vital to our efforts to reform general education and educate scientifically literate graduates. To assist the Department of Chemistry—and other science departments—with this task, I will work with science department chairs to appoint a committee to review best practices in general education science courses, provide guidance to departments as they revamp their courses for non-majors, and to explore the possibility of creating new, interdisciplinary general education science courses. Our goal should be courses for non-science majors that emphasize scientific method, the use of evidence, critical thinking, and other skills essential to the critical evaluation of claims about science, which students will see in the news, political campaigns, and daily life.

Given the impending visit of a team from the North Central Association to examine our progress on assessment, the department must develop and implement a viable assessment plan in the coming year. I have already asked Dr. Elizabeth Cole, Associate Dean for College Advancement, to meet with Dr. Ogawa to develop a timeline for this project.

Recruiting undergraduate students to study sciences and mathematics is a significant challenge nationally. The continuing decline of science and mathematics majors poses a serious problem for employers, K-12 education, and research. While I encourage the department to develop a plan for recruiting more majors, I believe this is an issue that can most effectively be addressed by the science departments together, in collaboration with the College Office. I will convene a meeting of science department chairs to discuss this issue and decide how we can best proceed to recruit students to study science at BGSU.
While the department has some important and challenging issues to address, it does so from a position of strength. I look forward to working with Dr. Ogawa and his colleagues in the coming years to make a good department even better.

______________________________________
Donald G. Nieman, Dean

Date

Concurred:

______________________________________
John W. Folkins, Provost

Date