

Date: May 12, 2010

To: Tracy Pellett  
Associate Vice President for Undergraduate Studies

From: Kirk Johnson  
Dean, College of the Sciences

Subject: 2009-2010 Program Review, Computer Science Department

You have asked me to provide commendations and recommendations as part of the program review process for the Computer Science Department. These observations consider the self-study, the external evaluator's report, as well as on the context and resource issues with the college.

The department prepared a self-study and hosted the campus visit of the external reviewer. Dr. Robert Bryant provided a focused set of recommendations in his report. My commendations and recommendations reflect some of the same points he addressed. The department's strengths are its instructional performance, a sound student learning assessment program, faculty scholarship, and the senior capstone experience. Challenges faced by the department include a curriculum focused on windows-based systems and an antiquated facility.

*COMMENDATIONS:*

- The department maintains a collegial and collaborative working environment. Department members are cognizant of and value the contributions each member makes to the team or greater whole.
- New faculty and staff appear to be integrated seamlessly into the working environment. Mentoring opportunities are available and the department has developed model guidelines for consistency in faculty and staff performance review.
- Department philosophy and practice reflects the teacher/scholar model. The department's SEOI scores and student feedback provided to the external reviewer attest to the quality of instruction provided by the department.
- The faculty are actively engaged in high impact nationally and internationally recognized scholarship as evidenced by the department's overall rate of publications, conference presentations and grant applications.
- The department has implemented a model programmatic assessment plan and utilizes assessment results in curricular planning. The recent revision of the CS 101 course referenced by the external reviewer constitutes a concrete example of a department engaged in active assessment processes.

- The capstone experience is widely regarded as a model on campus because its emphasis on the project.
- Student advisement is approached in a consistent and thoughtful manner, and the department is to be commended for implementing appropriate course prerequisites.
- The department's recent hires have stabilized and strengthened the undergraduate curriculum and led the department to propose an innovative multidisciplinary masters program in computational sciences.
- The department contributes to the broader university mission through the provision of service coursework for other majors and the general education program. The revised CS 101 general education course has been transformed into a course which provides students with critical thinking and writing skills that easily translate to other courses across campus.
- Computer Science faculty members participate in a broad array of service activities in the community and in university governance.

#### *RECOMMENDATIONS:*

- *Curricular Standards/ Integrity:* The external reviewer points to two concerns which the department should address. First, the mathematics entrance requirement is not in keeping with contemporary standards for the discipline. The department is advised to review its curriculum in light of this finding, and consult with Mathematics to see if that department can meet the need for the additional service course load. Second, he recommends that students gain wider exposure to unix/linux operating systems. Together these curricular changes might enhance the educational experiences and employment prospects of students.
- *Facilities:* Although Hebel Hall is in some ways a quaint historic building on the main campus, its charm does not make up for the lack of proper facilities. Outdated classroom furnishings and electronics detract from instruction, and the lack of air conditioning is an embarrassment. The college has committed funds to purchase and install, with the assistance of university facilities, in-room air conditioning units in the two hottest offices this summer. This is seen as a stop-gap effort until the building can be properly renovated (date unknown).
- *Building/Lab Access:* While it is true that today's students approach their studies differently than those in the past, liability and financial concerns suggest it would not be prudent to allow students virtually unfettered access to the building and computer laboratory facilities 24 hours a day as suggested by the external reviewer. If nighttime lab access constitutes a common student complaint or concern I suggest the department engage in a dialog with IT to assess the need for such a facility somewhere on the campus.

#### *SUMMARY:*

In summary, the Computer Science Department has a strong student-centered identity with a well defined disciplinary focus when it comes to its undergraduate mission. The department's faculty members maintain a strong record of instructional performance and have quietly generated an outstanding record of contributions to scholarship.