

Program Performance Review: Culmination Meeting Memo Computer Science, M.S. Program

The 2013-2014 Program Performance Review (PPR) process for the M.S. Program in Computer Science concluded with a culmination meeting on May 1, 2015.

During the meeting, the program was commended for the significant progress made in the past several years, which includes:

1. Department successfully runs a large computer science graduate program.
2. Program produces superior quality graduates that are sought after by local employers.
3. Program provides students with perfect blend of practice, theory and research.
4. Program is developing two new tracks: Computer Security and High Performance Computing.
 - The department reported that three more courses have been added in the area of Computer Security, resulting in a total of four courses in the area. Two faculty in Computer Security have been hired. A proposal for the Center of Cyber-Security has been submitted.
5. Most tenure/tenure-track faculty keep current with industry development, and actively participate in research.

The major recommendations and concerns raised through the PPR process were discussed. Suggestions on how to address them were provided:

1. Actions should be taken to “close the loop” on assessment findings.
 - The Dean stated that “closing the loop” in graduate engineering programs tends to take place by responding to industry needs. The addition of courses in Computer Security is an example of addressing increased industry interest in this topic.
2. Program should aim higher for student survey ratings of program quality, currently with an average score of 6 out of 10.
 - The department acknowledged the need to aim for higher student ratings, and indicated that another survey should take place soon to track any changes in student experience in the program.
 - One of the student complaints in the last survey is about “not getting enough help”. The department responded by expanding advising hours to reach more students. The graduate advisor acknowledged that it is difficult to reach out to those students who do not seek advising on their own, and is exploring strategies to “catch them early”.
 - The chair has also worked with staff and student assistants to change their attitude in order to be more proactive in seeking ways to help the students. He has encouraged the staff and student assistants to adopt the mentality of “don’t say no”. Instead, he recommended the staff to inform the students that they cannot help, but encourage the students to contact the department chair who may be able to help. The college is also responsive to student concerns, and actively seeks ways to address them.
 - Another student complaint in the last survey is the availability of course options and scheduling difficulties. The college does not have a cohort-based scheduling practice, partly due to enrollment management challenges resulting from the fact that students are

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- admitted every semester. For the first time last year, the college had no admissions in spring, and spent the semester studying enrollment patterns to improve fall course offering and scheduling. This resulted in less student complains regarding class scheduling.
- The college is currently considering changes to the spring admission process (e.g. higher admission standards; admission deposit; etc.). The Deputy Provost recommended the program to carefully consider how many to admit, and who (in terms of qualifications) to admit in order to ensure sufficient course availability.
3. Closely examine student portfolios during admissions process to address the issue of students being underprepared for classes, especially those students with undergraduate degree in other field.
 - The program currently does not use a portfolio approach in the admission process. It only examines transcripts and TOEFL scores. The college stated that student applications that reach the department are filtered by the university admission's office, which screens the application for criteria such as GPA requirement. The program's admission staff then review the applications to decide whether to accept (with or without remedial courses).
 - The Deputy Provost suggested the addition of other admission materials (such as essay), but the program did not think it would be helpful, and it would be too challenging for international students.
 4. Offer new graduate student orientation to help students understand requirements of completing program.
 - The college has implemented graduate student orientation for 6 years now, both in fall and spring. The orientation addresses both general college requirements, as well as discipline specific information.
 5. Offer more coursework that enables students to become more competitive in computer science related job market such as technical courses including computer programming, algorithm design, data structure, and networks courses, as well as more hands-on courses to teach tools, techniques, and methods widely used in computer science fields.
 - The college recommended the program to examine its curriculum, and explore ways to infuse more hands-on or team-based projects in the courses.
 - The college also requested the university to provide more support to graduate students on written communication skills, as well as university/cultural adjustment, particularly for international students.
 - The Deputy Provost will speak with the AVP of UEE/IP to enhance international student services.
 6. Time-to-degree should be reduced as only 50% of students graduate within three years, and some take as long as six years.
 - The college stated that the time-to-degree data provided by the IR office may be misleading, as it combines students who have computer science background and those who do not. The program currently requires 30 credit hours for graduation, but students

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who do not have computer science background are required to take additional “bridge” courses. As such, students with computer science undergraduate degree typically graduate in 2 years, and those who come from other fields take longer.

- The college has now more intentional focus on retention and graduation due to the university’s student success initiative, which is expected to lead to improved time-to-graduation.