

Executive Summary for the MS in Applied Computer Science Program

Turner College of Business

2013-2014

A detailed self-study of the MS in Applied Computer Science program was performed by the faculty of TSYS School of Computer Science and reviewed by an external team of evaluators. The objectives of this self-study were to assess the strengths and weaknesses of the program and to develop a plan for further improvement. In this summary all the areas assessed as above average to very strong are listed as our strengths, and areas assessed as weak or below average are listed as our weaknesses.

Major Findings of the Program's Quality and Productivity

- The program's overall quality is deemed to be **very strong**.
- Quality of faculty, service and research are **very strong**.
- Quality of faculty and student achievement is **very strong**.
- Quality of teaching and curriculum is **above average**.
- Quality of facilities and equipment rated **satisfactory**.
- Quality of program's overall productivity is **above average**.
- Enrollment is strong and growing.
- Retention is a major issue as the graduation rate of the program is deemed **below average**.
- Faculty is highly diverse and the program offers a multicultural perspective.
- Cost-Effectiveness of instructional delivery is **very strong**.

List of Recommendations for Improving Program Quality

- Explore additional graduate offerings: Doctorate of Science (Sc.D.) or Doctorate of IT (D.I.T.) in the area of Information Assurance.
- Hire additional faculty to reduce reliance on part-time faculty and to discontinue the comingling of undergraduate and graduate students.
- Increase stipends for graduate student assistants and encourage Masters with Thesis for these students. [DONE]
- Expand outreach to the local and professional communities.
- Closely monitor curriculum to ensure it remains current and matches the needs of major employers.
- Improve student recruitment and mentoring to include improving student transition guidance upon entering the program.
- Explore adding a professional certification requirement.
- Obtain funding to provide scholarships to high achieving students.
- Improve reward system to better align faculty incentives with the mission.

- Expand internship opportunities for students and faculty.
- Improve technology: new projectors for all classrooms, a faster network switch, and more wireless access points.
- Encourage interdisciplinary research between School of Computer Science and other disciplines involving undergraduate as well as graduate level research.
- Obtain additional space for Center for Academic Excellence in Information Assurance Education, GEMS Institute, Center for Enterprise Computing and other research needs.

List of Recommendations for Improving Program Productivity

- Seek funding for additional full-time tenure-track and non-tenure-track faculty members and reduce reliance on part-time faculty to improve RPG.
- Develop a graduate student recruitment plan (underway)
- Hire a student support specialist to help with student advising and recruitment. (DONE)
- Offer additional semester options (including summer) for selected courses to help increase student progression and graduation rates.

Conclusions about the Program's Viability at CSU

The program's viability is deemed **very strong and we recommend that it be enhanced and expanded.**

Program Improvement Plan

The program will continue to educate our students who will contribute to fulfilling the huge demand of technology workforce nationwide and improving the nation's economy as a consequence. Our students will also continue to be trained to think critically and conduct research in computing and technology.

Initiatives to Be Implemented:

- Create an ABET exploration task force.
- Seek additional state funding to hire additional faculty.
- Solicit private support to create a Center for Mainframe and Enterprise Computing to meet labor force needs of major employers.
- Solicit comprehensive campaign support for addition to the Center for Commerce and Technology.
- Improve reward system to better align faculty incentives with the mission.
- Explore expansion of additional graduate offerings (in-class masters and doctoral programs) once adequate resources are obtained to ensure the quality of existing programs.
- Explore the use of mini-grants and course release to stimulate quality research.
- Increase stipends for graduate assistants.
- Continue to address the 615 and 6106 success rate and seek to increase this success rate through improvements to student support and course design.
- Assess advising effectiveness.

Summary Recommendation and Supporting Rationale

The MS in Applied Computer Science program demonstrates the high quality and level of dedication of the existing faculty members. The quality will be further improved by adding new qualified members to this team. Hiring new faculty is also very crucial for improving the program productivity. Computer science graduates are highly marketable giving the program tremendous opportunity for growth.