

REPORT OF THE PROGRAM PERFORMANCE REVIEW TEAM

Master of Science in Information Technology

Academic Year 2015 – 2016

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December 17, 2015

Program Performance Review (PPR) Team Analysis

The PPR Team carefully studied the Self-Study Report and supplemental documents. On November 20 the Review Team spent one day meeting with faculty, students, alumna, administrators and a representative from the Industry Advisory Board. This analysis reflects the Review Team's assessment of the Master of Science in Information Technology program in its fulfillment of the program mission, goals, and student learning outcomes, as well as the program's contributions to the Departmental, College, and University missions and Goals.

Documents Received and Reviewed:

1. Self-Study Report
2. Course Syllabi:
 - a. ISDS418 Information Privacy and Security
 - b. ISDS505 Programming Concepts for Information Technology
 - c. ISDS550 Telecommunications and Business Networks
 - d. ISDS551 Information Resource and IT Project Management
 - e. ISDS552 Systems Analysis, Design, and Development
 - f. ISDS555 Business Database: Design and Processing
 - g. ISDS570 Business Data Transformation
 - h. ISDS577 Seminar in IS Implementation (Capstone)
3. Sample Project Assignments
4. Sample Students Projects
5. Course Websites

Faculty Members Interviewed:

1. Dr. Ester Gonzalez, Assistant Professor
2. Dr. Pawel J. Kalczyński, Professor
3. Dr. Bhushan Kapoor, Professor and Department Chair
4. Dr. Pramod Pandya, Program Director
5. Dr. Daniel Soper, Associate Professor
6. Dr. Yi "Jenny" Zhang, Professor and Associate Dean

Administrators Met:

1. Dr. Anil Puri, Dean
2. Dr. Isho Tama-Sweet, Associate Dean

Students and Alumni Interviewed:

1. Matthew Duncan, Cohort 9 – Graduated 2014
2. Timothy Heffern, Cohort 10 – Graduated 2015
3. Ranjeev Kumar, Cohort 9 – Graduated 2014
4. Jennie Phuong, Current student
5. Hector Ramirez, Cohort 9 – Graduated 2014
6. Cesarius Yakub, Cohort 9 – Graduated 2014

Industry Advisory Board Member Met:

Emilio Lopez

Meeting Agenda on Friday, November 20th, 2015

1. 8:30 - 9:30 AM: Breakfast Place: Marriott
2. 10:00 - 12:00 PM: Meet the MSIT faculty:
Place: Conference room, ISDS
 - a. Ester Gonzalez
 - b. Pawel Kalczynski
 - c. Bhushan Kapoor
 - d. Pramod Pandya
 - e. Daniel Soper
 - f. Jenny Zhang
3. 12:15 - 1:30 PM: Meet MSIT Graduates, Lunch
Place: Marriott
4. 1:45 - 2:40 PM: Meet Associate Dean Isho Tama-Sweet
Place: Conference room, ISDS
3. 2:40 – 3:00PM: Meet Dean Anil Puri, Dean’s office
4. 3:00 - 3:30 PM: PPR Review Team meeting

Program Strengths

The PPR Team commends the MS in IT faculty and the ISDS Department leadership for their vision and continuous dedication that sustain a high quality online program as evidenced by the ranking in California and the nation. In particular, the PPR Team recognizes the following strengths of the MSIT program:

1. Maintaining a reasonably high standard for admission ensures the quality of the students entering the program. All applicants must take GMAT or GRE and pass an interview to be admitted to the program. The applicants who are deficient in academic preparation are encouraged to strengthen their background knowledge by taking some classes in community colleges. Program Director Dr. Pramod Pandya provides valuable advice to the incoming and prospective students.
2. In addition to managing a high level of admissions, it is equally important to maintain a high level of education and teaching staff. MSIT department maintains the University requirements for tenure, as well as 3.0 student evaluation of faculty who are teaching graduate level courses is required (scale 1-4).
3. The cohort structure of the program improves student learning experience especially in the online setting. Students in the same cohort gradually get acquainted with each other and group learning can flourish. Both the retention rate and graduation rate are much higher than other programs on campus. The average graduation rate was 81.6% in the last five years while the whole university graduation rate was 61.9%. The time to degree is also much better.
4. An Industry Advisory Board meets once a year to provide inputs from the IT industries. An Internal Program Council holds meetings during the semester to discuss student concerns and course improvements.
5. The curriculum was updated and kept current with the advances of knowledge in the IT industry. Since the previous PPR one course Accounting 509 was moved out of the core requirements to become an elective course and another course ISDS 556 – Data Warehousing and Foundations of Business Intelligence was added to the core requirements. The sequence of courses was also altered to better align with the student learning progress. A new elective ISDS 557 – Issues in Information Technology was introduced.
6. Every single course engages students in some hands-on realistic projects. Student progress in the course was closely assessed and feedback was provided for improvements.

7. A capstone course provides students with an opportunity to develop a cumulative project utilizing the knowledge they acquire from the courses in the program. The students demonstrate communication skills through presentation and project report both individually and within a team.
8. Under the leadership of Department Chair Dr. Bhushan Kapoor and Program Director Dr. Pramod Pandya, a team of highly qualified and dedicated faculty members sincerely care about student success. The faculty members demonstrate competence and enthusiasm in their course presentations. Each of them possesses some unique pedagogy and methodology in online teaching. Multimedia and technologies are utilized in their courses.
9. Digital devices are acquired for faculty members to enhance their instructions, such as digital voice recorders, microphones, web cams, USB thumb drives, external hard drives, and a digital video camera.
10. The examinations are either on campus or proctored by trustworthy University approved agents. Course assessment has been a challenging issue in online education. The MSIT program established some best practices in this regard by always requiring a proctor to authenticate the individual taking the examination.
11. A boot-up camp prepares students for the online instructional environment and technologies. A midpoint symposium assesses the cohort progress and receives feedback and suggestions from the students.
12. Satisfaction of the students in the program is high as evidenced by the survey results included in the Self-Study Report and by the interviews with the alumni and student.
13. Survey conducted by the department showed that there was a 30% increase in salary of the MSIT students after graduation.
14. The Department and College leadership are open minded and work closely with the faculty together for a shared mission. The College promotes faculty development and encourages faculty to engage in high quality and productive scholarly activities.
15. The program is adding a new concentration in Data Science. The first cohort will be admitted in fall 2016.
16. New courses are added to keep up with the advancements and demands; for example Data Transformation to be added in fall 2016 to support the new Data Science concentration. Three new courses are being developed for this new concentration.

Areas for Program Improvement

The PPR Team praised the MSIT faculty for running an excellent online program and sustaining the high quality over a decade. In the spirit of helping the program to do even better, the PPR Team has identified seven areas for consideration. The PPR Team appreciated the thoroughness of the Self-Study Report and the comprehensive arrangement of the day for the visit. Nevertheless, these recommendations are based on our observation and from our perspectives. Thus, they are provided as inputs to the MSIT faculty, the Department and College leaderships.

1. **Possible Growth of Enrollment:** Such a high quality program supplies excellent employees to the IT industry. The IT industry needs more graduates from the program. While maintaining the quality of incoming students, maybe outreach activities can attract more prospective students.
2. **Engagement of the Industry Advisory Board:** In addition to providing inputs for improvement of the program and curriculum, the Industry Advisory Board may also help to spread the words and recruit more students.
3. **Development of the Data Science Concentration:** Big data and data science is an emerging area in IT industry. It is a good time to introduce this new concentration. Three new courses are being developed and the new concentration will increase the enrollment.
4. **The Alignment of the Curriculum between the Certificate Program and the MSIT Program:** The ISDS Department is developing a Certificate Program in Health Care Analytics. The curriculum needs to align with the MSIT curriculum so that students may transfer to the MSIT program with 9 units taken from the Certificate Program.
5. **Possible Improvement in Student Services and Technology:** According to the Self-Study Report, U.S. News ranks the program with the following indicators: faculty credentials & training, student services and technology, student engagement, and admissions selectivity. The MSIT program scored 93, 67, 80, and 92, respectively. There is potential in the area with low score that may be worth looking into, for example Student Services and Technology.
6. **Provide additional options in electives for students with technical background:** Students with extensive technical background may find it beneficial to select complimentary non-technical courses as electives.
7. **Group Projects and Team Work:** Most of the MSIT faculty already has class assignments that require individual as well as team effort and collaboration. A formal emphasis to have certain percentage of the assignments to require collaboration may be helpful.