Program Review

Master of Science
Information Systems

CITE

November 2010

MARSHALL UNIVERSITY

Date: February, 2011
Program: **Master of Science in Information Systems**

Date of Last Review: **2006**

**Recommendation**

Marshall University is obligated to recommend continuance or discontinuance of a program and to provide a brief rationale for the recommendation.

**Recommendation Code (#):**

1. Continuation of the program at the current level of activity; or

2. Continuation of the program at a reduced level of activity or with corrective action: Corrective action will apply to programs that have deficiencies that the program itself can address and correct. **Progress report due by November 1 next academic year;** or

3. Continuation of the program with identification of the program for resource development: Resource development will apply to already viable programs that require additional resources from the Administration to help achieve their full potential. This designation is considered an investment in a viable program as opposed to addressing issues of a weak program. **Progress report due by November 1 next academic year;** or

4. Development of a cooperative program with another institution, or sharing of courses, facilities, faculty, and the like; or

5. Discontinuation of the program

**Rationale for Recommendation:** (Deans, please submit the rationale as a separate document. Beyond the College level, any office that disagrees with the previous recommendation must submit a separate rationale and append it to this document with appropriate signature.)

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1. **John Biros**

   Recommendation: Signature of person preparing the report:

   Date: 2/15/2011

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1. **William Pierson**

   Recommendation: Signature of Program Chair:

   Date: 11-1-2010

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1. **Betsy E. Dulin**

   Recommendation: Signature of Academic Dean:

   Date: 11-1-2010

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**Recommendation:** Signature of Chair, Academic Planning Committee: (Baccalaureate pgms only)

Date:

**Recommendation:** Signature of President, Faculty Senate/Chair, Graduate Council:

Date:

**Recommendation:** Signature of the Provost and Senior Vice President for Academic Affairs:

Date:

**Recommendation:** Signature of the President:

Date:

**Recommendation:** Signature of Chair, Board of Governors:

Date:
College/School Dean’s Recommendation

Deans, please indicate your recommendation and submit the rationale.

Recommendation:

Continue program at current level of activity.

Rationale:
(If you recommend a program for resource development identify all areas for specific development)

The Master of Science in Information Systems program was one of the graduate programs acquired by Marshall University through the merger with the West Virginia Graduate College in 1997. Since that time, the program has functioned primarily as a night/evening program for working professionals, with some exceptions. Also since that time, regional demographics and market forces in the field of information technology have changed significantly, impacting program enrollment and student base. In addition, although program faculty remain closely connected to their industry colleagues and are responsive to many forms of informal feedback, the program has not undergone significant comprehensive curriculum review by employers, students, and other stakeholders in some time. The program also requires a much more detailed and fully implemented assessment plan.

Consequently, given the rapidly changing nature of this professional field, and corresponding changes in student/employer demands and needs, we are planning an immediate comprehensive review of the program curriculum through use of industry focus groups and related forums, and the development and implementation of a new assessment plan. In the meantime, we recommend continuing the program at the current level of activity unless and until changes are recommended or required as a result of the afore-mentioned curriculum review and assessment. Any future changes to the program as a result of this process will ensure that commitments to and opportunities for currently enrolled students are honored and supported.

Betsy E. Dulin
2/22/2011
Signature of the Dean
Date
Marshall University  
Program Review

For purposes of program review, the academic year will begin in summer and end in spring.

Program: Master of Science in Information Systems
College: College of Information Technology and Engineering
Date of Last Review: 2006

I CONSISTENCY WITH UNIVERSITY MISSION

Provide your program’s mission statement.

*The Information Systems program prepares participants to be effective users, designers, and developers of information systems, people who can add value to processes and products in organizations.*

Explain how your mission supports the mission of your college and the mission of Marshall University.

*The Marshall Mission statement contains several objectives. Several of these objectives are particularly pertinent to the MS IS degree program:*

**Marshall University will**
- provide affordable, high quality undergraduate and graduate education appropriate for the state and the region;
- make instruction available throughout Marshall’s service area using all appropriate modes of delivery;
- promote economic development through research, collaboration, and technological innovations;

*In addition, the CITE mission is to deliver undergraduate and graduate programs in high-technology fields that optimize opportunities for our students and that support the growth and reputation of our university, state, and region. The MS IS objectives are consistent with the college mission.*

II ACCREDITATION INFORMATION –

There is no external accreditation for the MS IS program.

III PROGRAM STATEMENT on Adequacy, Viability, Necessity and Consistency with University/College Mission

A. ADEQUACY Provide a narrative summary for each of the following in addition to the requested appendices.

1. **Curriculum:** Students must complete 36 graduate credit hours, including at least 24 credit hours at Marshall University. The degree consists of 27 credit hours of required courses and 9 hours of approved elective courses.

   **Required courses:**
   IS 600 Management Information Systems
IS 605 Systems Analysis Techniques  
IS 610 Systems Design  
IS 621 Information Structures I  
IS 622 Information Structures II  
IS 623 Database Management  
EM 660 Project Management  
TE 698 Comprehensive Project Formulation – after 18 hours  
TE 699 Comprehensive Project – after completion of min. 27 hours

Three electives in IS or other related fields as approved by advisor.

The Comprehensive Project (TE-699) requires the student to produce an original solution to a problem through the stages of problem definition, analysis, design and implementation. It requires a committee approval and a formal oral project presentation.

2. Faculty:

As of the Fall 2010 semester, there were three IS faculty: Professor John Biros, Dr. Jamil Chaudri, and Dr. Patricia Logan (who was on sick leave). Since then, we had the unfortunate death of Dr. Patricia Logan...leaving just two full-time faculty members. All three faculty members were tenured. One is a full professor while the other two are associate professors. In addition, one adjunct normally teaches the GIS course. Part time adjuncts have been used over the past two years to fill in while full time instructors were on sick leaves. A summary of the IS faculty credentials is contained in Appendix II.

3. Students:

a. Each applicant for admission to the M. S. in Information Systems program must satisfy at least TWO of the following criteria:
   • Score at the mean or above on the verbal GRE;
   • Score at the mean or above on the quantitative GRE;
   • Score at the mean or above on the analytical writing portion of the GRE;
   • Score at the mean or above on the Miller Analogies Test;
   • Have an undergraduate GPA of 2.75 or above;

Also, international students must score at the mean or above on the TOEFL, and must have met all CITE admission criteria prior to registering for the first semester of courses.

b. Entrance Abilities: See Appendix III for actual scores for entering students. The QPA is consistently above minimum as are the quantitative scores. The verbal scores are over average but lower than qualitative, which is expected.

c. Exit Abilities: The comprehensive project is our primary means of evaluating exit abilities. We approve a student’s work if it demonstrates competence in analysis, design and system implementation. In addition, the student must be able to present the material effectively to a group composed of faculty and, at times, other professionals with knowledge of the student’s topic. In addition, the high number of graduates employed in the field, along with the high positions many hold in the industry, testify to the strength of the program’s academics. Unfortunately, there are no external measures of exit abilities for the program.
4. **Resources:**

   a. **Financial:** The average State financial support over a five-year period for the Weisberg Division of Engineering and Computer Science is $233,550, with approximately 32% annually going towards personnel (Student assistants, Part-Time Faculty, etc.).

   If this program was terminated, three tenure-track faculty positions would be lost. However, courses from the MS IS program are required for students in Technology Management who have an emphasis in IS or IS Security (over 50% of the students in the TM program) as well as students enrolling in the new Health Care Informatics degree program. If the MS IS program were terminated, these courses would still have to be offered. In addition, enrollment in support courses such as TE-698 and EM-660 would decline with the loss of the program.

   There is one administrative support position on the South Charleston campus for all the CITE MS graduate programs. The IS program utilizes this support person for their secretarial services. If the program is terminated, the workload would be less but the position would still be needed to support the other CITE graduate programs on the South Charleston campus.

   b. **Facilities:** MS IS courses are taught using conventional delivery as well as video links and Wimba technology. Furthermore, courses are often taught on both the Huntington campus as well as the South Charleston campus. Lecture sessions are almost always in the evening (4:00 pm or later) since many of the students are working professionals.

   MS IS courses taught in Huntington, use classroom and computer facilities located in Gullickson Hall (GH5, GH206A, and GH211). Each of these rooms can seat 25-30 students. MS IS courses taught in South Charleston share facilities used by other graduate programs offered on that campus, primarily utilizing the computers in classroom GC136 which seats 12 – 20 students.

   Office space is also utilized in South Charleston for resident faculty. Library facilities are utilized by majors in the IS program for their research requirements.


   a. **Summary Information:** Appendix V carries a chart showing the major outcomes desired from the program, the methods for reaching those goals as well as areas that need improvement. The greatest need is for a curriculum revision to allow for the addition of more courses dealing with changes in the industry.

   b. Since the majority of students are older and employed, most of the learning experiences for them come directly from their work environment, which they pass on to the other students enrolled in the program. Along these lines, the IS program conducted two extensive contract courses for the State of West Virginia IT people. Each course ran 9 months with the classes meeting on the third Friday of the month with a different topic in the morning and in the afternoon for a total of 20 sessions. The courses were well received and provided great input into the IS graduate program.

   c. Plans for program improvement are centered around major curriculum revision to update course content and courses offered. In addition, a marketing plan needs to be implemented to raise enrollment rates. In addition, the program needs to make extensive use of the advisory committee in order to assist with the program revision as well as identifying
qualified adjuncts to pick up the teaching load, especially with the state of the
courses.
d. A program needs to be implemented to document student success ratios and
employer satisfaction. Attached is a spread sheet showing the graduates
during the last five years and indicating which students are employed in the
field. This is exceedingly difficult as more and more students in the program
are international who return home after completing the program.
e. We have no assessment letters to attach at this point in time.

6. Previous Reviews: At its meeting in April 2007, the Marshall University Board
of Governors recommended that the MS in Information Systems continue at its
current level of activity with a requirement that a progress report on the 12-month
strategic plan be submitted to the Board of Governors during the next program
review cycle. After receiving this follow-up report at its April 2008 meeting, the
Board of Governors approved the follow-up report and recommended that the
MS in Information Systems continue at its current level of activity.

Two major areas from prior assessments were not sufficiently addressed during
this review period. The first is that the IS program has never identified learning
goals, objectives and measurable outcomes. This is a deficiency that needs to be
addressed. Each course needs to have defined measurable objectives along
with methods to evaluate success. The second area deals with employer and
student satisfaction. This has not been a priority in the past since 90% of the
students were employed. Employer satisfaction was measure by whether or not
the employee remained employed and/or got promoted. Student placement was
never an issue since most students were employed. So, the success of the
program was never measured by how many students were able to get jobs.
However, with the influx of international students as well as direct entry of
undergraduates, employment now takes on new significance.

7. Strengths/Weaknesses: Identify the strengths and weaknesses of the program.
Describe program plans for removing the weaknesses.

The strength of the MS IS program is the overall commitment of the faculty to delivering
relevant, high-quality instruction to its students.

This strength of the program is seen in the many high positions held by its graduates.
They fill positions not only here in Advantage Valley but throughout the world.

The primary weakness of the program is the relatively weak enrollment trends that have
developed. Since 2005, for example, the peak program enrollment was 37, with a five-
year (2005-2009) average of about 32 students. During this same period, there were four
full-time faculty dedicated to the MS IS program, for a student-to-faculty ratio of 8:1. As
faculty retirements and resignations occur, the college is reallocating these resources to
other high-growth areas.

Currently, there are only two full time faculty members devoted to the program, which
significantly changes the student-to-faculty ratio. Adjunct faculty are being used to fill
gaps in the teaching load.

The stated goals of the MS IS program are:

The Information Systems program prepares participants to be effective users, designers, and
developers of information systems, people who can add value to processes and products in
organizations. The program also helps participants improve their professional writing, presentation, and teamwork abilities. Specific objectives expected of graduates include:

- The ability to describe a situation as a system, specifying components, boundaries, and interfaces
- Communication skills for effectively leading teams, collaborating with managers in defining needs and opportunities, and assisting colleagues
- Knowledge of the basic hardware and software components of computer systems and their configurations
- The ability to develop specifications for a software system in terms of functions, modules, and interfaces
- The ability to gather and use information needed by information systems professionals
- Mastery of the technical and human skills needed to successfully deploy information technologies in various organizational settings.

B. VIABILITY Provide a narrative summary for each of the following items in addition to requested appendices.

1. Articulation Agreements: Not applicable.
2. Off-Campus Classes: No off-campus courses are offered.
3. Online Courses: Three MS IS courses are designated as WEB-based:
   - IS656 Communications and Network Technologies  
     (Offered fall 2008, 12 students enrolled)
   - IS646 Computer System Security  
     (offered spring 2009, 6 students enrolled)
   - IS631 Information Security  
     (offered spring 2009, 13 students enrolled)

   (Most courses are now offered as lecture and Wimba allowing students to attend classes remotely via Blackboard and Wimba)

4. Service Courses:

   Technology Management: Students enrolled in Technology Management pursuing the Information Technology or Information Security areas of emphasis are required to take IS courses. Over half of the TM majors have declared an emphasis in Information Technology or Information Security (24 of 43 = 56% in fall 2009 and 36 of 58 = 62% in fall 2010). Courses they take include:

   - IS631 Information Security
   - IS656 Communications and Network Technologies
   - IS646 Computer Systems Security
   - IS647 IT Disaster Planning and Recovery
   - IS623 Database Management
   - IS605 System Analysis
   - IS610 System Design

   Health Care Informatics -- The new degree in Health Care Informatics is a combined degree between three Colleges, The College of Health
Professionals, The Lewis College of Business and CITE. Information Systems is providing the IS courses associated with this degree program.

**Technology Engineering** offers a course titled TE-698 Comprehensive Project Formulation. The IS department conducts this class for CITE. The course is traditionally offered every semester and occasionally during the summer sessions as well.

**MBA, in Health Care Administration as well as the Criminal Justice** Students enrolled in these programs often take IS courses as electives.

5. **Program Course Enrollment.** The average course enrollment since 2005 is about 12 students per course. The typical (median) enrollment is 11-12.

6. **Program Enrollment:** Program enrollment has averaged about 32 students per year over the past five years. New admissions have averaged about 7-8 students per year.

7. **Enrollment Projections:** Enrollment has remained consistent throughout the review period. This was done despite the fact that there was no outside advertising or recruitment. Course enrollment will likely increase with the creation of the Health Informatics Degree since IS is providing the technology courses. In addition, with any planned recruitment, enrollment should show an increase.

C. **NECESSITY:**

1. **Advisory Committee:** There is an advisory committee. The sub-committee on Health Care Informatics has been very active over the past three years. The sub-committee has met 4 times, strongly recommending that the IS program offer an area of emphasis in health care. The sub-committee recommended this because the greatest need in the health care industry is going to be the need for well-trained information systems specialists. Unfortunately, this proposal was denied by our Provost nullifying the work of the sub-committee.

2. **Graduates:** Many students in the program are working professionals who already have full-time jobs. Those who are not working professionals are typically international students. An alumni database and mailing list has been assembled. Employment history is being collected. Two successful alumni meetings have been held during the past 5 years and a third is being planned. Employment tracking is difficult due to the fluidness of the IS job market and the influx of international students.

3. **Job Placement:** To this point in time, the Information Systems program primarily served working professionals in the Advantage Valley area. As a result, job placement has never been required in the program. For instance, of the Charleston based students in the program, over 90% are employed full-time. It is only recent that the program has been attracting full time non-working students. Most of these are international exchange students. As a result, the program is just now starting to get into the placement area.
IV. RESOURCE DEVELOPMENT (If applicable)

There are a number of areas where resource would assist the program:

a. First, there is a need for administrative support on the South Charleston campus. Currently, all administrative decisions are being made on the Huntington campus. Unfortunately for this program, and other graduate programs, administration in Huntington has been preoccupied with the development and enhancement of Huntington bases programs. This has resulted in delays and miscommunications that are affecting program development. The presence of an Associate Dean of CITE (or similar position) in South Charleston would greatly facilitate matters.

b. Second, there is a crying need for marketing support and initiative. Over the past five years, there have only been minimal marketing efforts by the administration extended to assist growth in the programs. A concentrated marketing and public relations campaign is needed. It is fortunate that the IS program has been able to survive as well as it has without this type of support from the University.

c. Development funding is really needed by the faculty within the program. There has been very little funding given for faculty in IS to attend classes, seminars and conferences. With the fast changing pace of information in this field, it is crucial to fund faculty development so that the program can stay current with today’s technology.

d. Graduate Assistantships have been eliminated over the past two years. This has particularly hurt the development of the IS program since it has put additional work on the faculty that had been handled by the graduate assistants. We really need these positions restored.

e. The computers in GC136 are old and slow. If we are going to continue using that room as our primary IS instruction area in South Charleston, we need the computers either upgraded or replaced.
# Appendix I

## Required/Elective Course Work in the Program

Degree Program: MS Information Systems  
Person responsible for the report: William Pierson

<table>
<thead>
<tr>
<th>Courses Required in Major (By Course Number and Title)</th>
<th>Total Required Hours</th>
<th>Elective Credit Required by the Major (By Course Number and Title)</th>
<th>Elective Hours</th>
<th>Related Fields Courses Required</th>
<th>Total Related Hours</th>
</tr>
</thead>
</table>
| IS 600 – MIS  
IS 605 – Systems Analysis  
IS 610 – Systems Design  
IS 621 – Information Structures I  
IS 622 – Information Structures II  
IS 623 – Database management  
TE 698 – Comprehensive Project Formulation  
TE 699 – Comprehensive Project | 24 | Three approved electives | 9 | EM 660 – Project Management | 3 |
Appendix II
Faculty Data Sheet
(Information for the period of this review)

Name: John R. Biros          Rank: Associate Professor

Status (Check one): Full-time X Part-time Adjunct Current MU Faculty: Yes

Highest Degree Earned: MS Date Degree Received: 1997

Conferred by: West Virginia Graduate College
Area of Specialization: Information Systems

Professional Registration/Licensure Agency:

Years non-teaching experience
Years of employment other than Marshall
Years of employment at Marshall
Years of employment in higher education
Years of service at Marshall during this period of review

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment. (Expand the table as necessary)

<table>
<thead>
<tr>
<th>Year/Semester</th>
<th>Alpha Des. &amp; No.</th>
<th>Title</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2010</td>
<td>IS610-201 &amp; 231</td>
<td>Systems Design (10 + 5) Wimba</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>IS624-231</td>
<td>Data Warehousing</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>TE-699</td>
<td>Comprehensive Project</td>
<td></td>
</tr>
<tr>
<td>Fall 2009</td>
<td>IS605-101 &amp; 131</td>
<td>Systems Analysis Techniques (13 + 5) Wimba</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>IS623-101 &amp; 131</td>
<td>Database Management (9 + 7) Wimba</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>TE-699</td>
<td>Comprehensive Project</td>
<td>1</td>
</tr>
<tr>
<td>Spring 2009</td>
<td></td>
<td>Medical Leave of Absence (Did not teach classes ...adjuncts handled teaching load)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TE-699</td>
<td>Comprehensive Project</td>
<td>7</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>IS605-111</td>
<td>Systems Analysis Techniques</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>IS623-101 &amp; 131</td>
<td>Database Management (12 + 6) Wimba</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>TE-699</td>
<td>Comprehensive Project</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>IS651-131</td>
<td>Sp. Tp.: Web Development Tools</td>
<td>2</td>
</tr>
</tbody>
</table>
NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2) Activities that have enhanced your teaching and or research.
3) Discipline-related books/papers published (provide a full citation).
4) Papers presented at state, regional, national, or international conferences.
5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
6) Externally funded research grants and contracts you received.
7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
8) Community service as defined in the Greenbook.

2. Activities that have enhanced your teaching and or research:
   Member of The Kanawha Valley Chapter of AITP all five years.
   Attended all monthly scheduled meetings for AITP Chapter for all five years.
   Attended Health Informatics Network Conference 12/11/2009
   Attended numerous Webinars on a multitude of topics
   Hosted the WV Technology Security Conference at Marshall 10/19/2009
   Primary Advisor for Comprehensive Projects – 9 in 2009, 9 in 2009, 7 in 2007
   Developed data warehouse for Health Care Admin faculty housing 2002-2008 data
   One of first faculty members to introduce Breeze/Wimba into all courses taught
   Attended seminars on using Breeze 1/24/2008 and 5/8/2008
   Developed Special Topics Seminar for WV State Office of Technology that met third Friday of each month for 10 months – 20 attendees --- Taught 2007-2008 and 2008-2009
   Hosted Alumni Meeting for all graduates of the Information Systems program 5/17/2007
   Attended PASS SQL Server Database Seminar 5/1/2010
   Presented seminar to WV State Office of Technology on Business Analyst accreditations

5. Professional development activities including professional organizations, etc.
   Kanawha Valley Chapter of The Association of Information Technology Professionals (AITP)
   Active member during the past 5 years
   Attended all monthly scheduled meetings
   Served on Board of Directors and as the Regional Representative
   Attended all annual Spring Conferences
   Attended all annual Leadership Conferences
   Member of West Virginia Technology Association
   Serve on West Virginia State College’s Computer Science Advisory Board

8. Community Service
   Member of Sacred Heart’s Catholic Business Network
   Main speaker at the September, 2009 meeting
   Member of Carpatho-Rusin Society
   Panel member at discussion February, 2007
   Member of Advisory Committee for Byzantine Catholic Seminary in Pittsburgh, PA
   Member of Sister City Committee between Charleston, WV and Banska Bystricia Slovakia
   Sponsored 9 foreign exchange students from Slovakia over 5 years placed in various cities in USA
   Served as judge at State High School Social Science Fair in 2007

8. School Service
   Member of Faculty Senate
   Member of Faculty Senate Executive Committee
   Serve on CITE Promotion & Tenure Committee
   Member of Faculty Senate’s Legislative Action Committee
   Developed an Information Systems Advisory Board
   Member of committee that developed first intra-college degree program (2009).
   Program was MS Degree in Health Informatics
   Program between CITE, Health Care Admin and Health Care Professionals
Appendix II
Faculty Data Sheet
(Information for the period of this review)

Name: _______ Jamil Chaudri _______ Rank: Professor_____

Status (Check one):  Full-time  X  Part-time_____  Adjunct ______ Current MU Faculty: Yes

Highest Degree Earned: PhD  Date Degree Received: 1982

Conferred by: Durham University Business School
Area of Specialization: Management Information Systems

Professional Registration/Licensure_______________ Agency: ______________________________

Years non-teaching experience  16
Years of employment other than Marshall  16
Years of employment at Marshall  26
Years of employment in higher education  27
Years in service at Marshall during this period of review  26

List courses you taught during the final two years of this review. If you participated in a team-taught
course, indicate each of them and what percentage of the course you taught. For each course include
the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

<table>
<thead>
<tr>
<th>Year/Semester</th>
<th>Alpha Des. &amp; No.</th>
<th>Title</th>
<th>Enrollment</th>
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<tbody>
<tr>
<td>Spring 2010</td>
<td>IS622-201</td>
<td>Information Structures II</td>
<td>5</td>
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<tr>
<td></td>
<td>IS622-231</td>
<td>Information Structures II</td>
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<tr>
<td></td>
<td>IS650-201</td>
<td>Sp. Tp.: Risk Management in IS</td>
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<tr>
<td>Fall 2009</td>
<td>IS621-101</td>
<td>Information Structures I</td>
<td>7</td>
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<td></td>
<td>IS621-131</td>
<td>Information Structures I</td>
<td>4</td>
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<tr>
<td></td>
<td>IS640-101</td>
<td>Programming Languages</td>
<td>2</td>
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<tr>
<td>Spring 2009</td>
<td></td>
<td>On sabbatical leave</td>
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</tr>
<tr>
<td>Fall 2008</td>
<td></td>
<td>On sabbatical leave</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2) Activities that have enhanced your teaching and or research.

On Sabbatical leave, in the first phase, I conducted Evaluation of the Masters Program at National University of Science and Technology – School of Business. The aim of the evaluation is to establish whether the courses offered at NUST Business School were about the same level as at Marshall University. In the second phase, I developed a new course in Project Risk Management, for COMSATS’s new Masters Degree program in Project Management.

In 2010 June, I attended the InSite International Conference, in Rome, Italy. It was an excellent learning experience for me. Among the many topics of interest were: use of technology in teaching; the difference between IT Governance and Management; different Learning Styles of Students; encouraging minority and women students to enter and successfully complete degrees in CS and IS.

3) Discipline-related books/papers published (provide a full citation).

4) Papers presented at state, regional, national, or international conferences.

The 6th International Management Conference, at Ludhiana, Punjab, India. I presented a paper titled: “A New Model for Understanding Risk and the Emerging Environment Facilitating International Projects”

5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.

Have been a member of the British Computer Society since 1968; in 2001 became a LIFE MEMBER.

6) Externally funded research grants and contracts you received.

7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.

1. 2008 – Winner of Fulbright Fellowship for Pakistan
2. Invited Presenter - 2009 Seminar on Hospital Computerization, Armed Forces Post Graduate Medical Institute, Rawalpindi, Pakistan
3. International Reviewer for the submitted papers – 2010 InSite Conference, Rome, Italy
4. Session Chair for papers/presentations in Research Area: Art & Design as Elements of Informing, InSite Conference, Rome, Italy

I am often invited to speak professionally in England or Pakistan, but my department does not provide the funds for travel. My Division Chair has not even provided me any Faculty Development funds for the last 6 years. The per-person Faculty Development allocation SHOULD BE $2’000 per year. My Division has thus spent the $12’000 I should have received in ways unknown to me (or the public).

8) Community service as defined in the Greenbook.

1. I am a Founding Member of the Muslim Association of Huntington, since 1984. I am in continuous service – in whatever capacity required; presently, I am preparing the 2008-2009 Financial Reports for them.
2. Member of the University Faculty Senate Standing Committee on University Functions, since 2009-
3. Chair of the University Faculty Senate Committee for Faculty Development, 2010-
Appendix II
Faculty Data Sheet
(Information for the period of this review)

Name: Thomas D. Hankins
Rank: Professor

Status (Check one): Full-time X Part-time _____ Adjunct _____
Current MU Faculty: No

Highest Degree Earned: PhD Date Degree Received: 1974

Conferred by: Clark University
Area of Specialization: Resource Management

Professional Registration/Licensure AICP Agency: American Institute of Certified Planners

| Years non-teaching experience | 4 |
| Years of employment other than Marshall | 6 |
| Years of employment at Marshall | 37 |
| Years of employment in higher education | 43 |
| Years in service at Marshall during this period of review | 5 |

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment. (Expand the table as necessary)

<table>
<thead>
<tr>
<th>Year/Semester</th>
<th>Alpha Des. &amp; No.</th>
<th>Title</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2010</td>
<td>IS600-231</td>
<td>Management Information Systems</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TE698-201</td>
<td>Comprehensive Project Formulation</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>TE699-201</td>
<td>Comprehensive Project</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TE699-231</td>
<td>Comprehensive Project</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>IS500-131</td>
<td>Computer Systems Structured Programming I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>IS600-131</td>
<td>Management Information Systems</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>IS685-101</td>
<td>Independent Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>IS623-131</td>
<td>Database Management</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>TE698-201</td>
<td>Comprehensive Project Formulation</td>
<td>6</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>IS600-201</td>
<td>Management Information Systems</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>TE699-201</td>
<td>Comprehensive Project</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TE699-231</td>
<td>Comprehensive Project</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>IS600-131</td>
<td>Management Information Systems</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>IS656-131 (50%)</td>
<td>Communications and Network Technologies</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>TE698-101</td>
<td>Comprehensive Project Formulation</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>TE699-134</td>
<td>Comprehensive Project</td>
<td>2</td>
</tr>
</tbody>
</table>
NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.
   My undergraduate major was math. I began teaching programming courses in 1982 and gradually retooled (by taking 30+ hours of credit courses and many CEU's of non-credit courses) and moved from teaching environmental studies to teaching information systems.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2) Activities that have enhanced your teaching and or research.
3) Discipline-related books/papers published (provide a full citation).
4) Papers presented at state, regional, national, or international conferences.
5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
   American Planning Association
   American Institute of Certified Planners (AICP)
   Completed continuing education requirements for biannual AICP certification 2009
   West Virginia Planning Association
6) Externally funded research grants and contracts you received.
7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
   Marshall University Outstanding Graduate Advisor award, May 2008
   Marshall University Distinguished Service Award, May 2010
   Marshall University Professor Emeritus, July 2010
8) Community service as defined in the Greenbook.
   Member of the Putnam County Planning Commission since 1977, chair for 3 years
   Member of the Putnam County Port Authority, chair since 2004
   Active in the Kanawha Valley and Ashland Area Emmaus communities
   Active in Kairos of West Virginia prison ministry
Appendix II
Faculty Data Sheet

Note – Faculty member is on medical leave. Some information may be incomplete or estimated.

Name: Patricia Y. Logan        Rank: Associate Professor

Status (Check one): Full-time X  Part-time   Adjunct  Current MU Faculty: Yes

Highest Degree Earned: PhD     Date Degree Received: 1996

Conferred by: Utah State University
Area of Specialization: Business Information Systems

Professional Registration/Licensure  CA CC Credential  Agency: CA Dept of Education

| Years non-teaching experience | 10 |
| Years of employment other than Marshall | 25 |
| Years of employment at Marshall | 8 |
| Years of employment in higher education | 25 |
| Years in service at Marshall during this period of review | 7 |

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment. (Expand the table as necessary)

<table>
<thead>
<tr>
<th>Year/Semester</th>
<th>Alpha Des. &amp; No.</th>
<th>Title</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2010</td>
<td>IS631-201</td>
<td>Information Security</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>IS646-231</td>
<td>Computer System Security</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>IS647-231</td>
<td>IT disaster Plan Recovery</td>
<td>5</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>IS646-101</td>
<td>Computer System Security</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>IS647-131</td>
<td>IT disaster Plan Recovery</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>ISS656-101</td>
<td>Communications Network and Technologies</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>IS623-131</td>
<td>Database Management</td>
<td>7</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>IS631-231 (50%)</td>
<td>Information Security</td>
<td>13</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>IS605-101 (50%)</td>
<td>Systems Analysis Techniques</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>IS631-231 (50%)</td>
<td>Information Security</td>
<td>12</td>
</tr>
</tbody>
</table>
NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

Information not available – faculty member on medical leave.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2) Activities that have enhanced your teaching and or research.
3) Discipline-related books/papers published (provide a full citation).
4) Papers presented at state, regional, national, or international conferences.
5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
6) Externally funded research grants and contracts you received.
7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
8) Community service as defined in the Greenbook.
Appendix II
Faculty Data Sheet
(for the period of this review)

Name: Jamie Wolfe                                Rank: Instructor

Status (Check one): Full-time     Part-time     Adjunct X     Current MU Faculty: X yes     no

Highest Degree Earned: MSE             Date Degree Received: 1999

Conferred by: Marshall University

Area of Specialization: Environmental Engineering

Professional Registration/License
Agency:

<table>
<thead>
<tr>
<th>Years non-teaching experience</th>
<th>20</th>
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</thead>
<tbody>
<tr>
<td>Years of employment other than Marshall</td>
<td>4</td>
</tr>
<tr>
<td>Years of employment at Marshall</td>
<td>16</td>
</tr>
<tr>
<td>Years of employment in higher education</td>
<td>12</td>
</tr>
<tr>
<td>Years in service at Marshall during this period of review</td>
<td>5</td>
</tr>
</tbody>
</table>

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught, course number, course title and enrollment. (Expand the table as necessary)

<table>
<thead>
<tr>
<th>Year/Semester</th>
<th>Alpha Des. &amp; No.</th>
<th>Title</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2010</td>
<td>IS 645-201</td>
<td>Geographic Information Systems</td>
<td>15</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>IS 645-231</td>
<td>Geographic Information Systems</td>
<td>18</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>IS 645-131</td>
<td>Geographic Information Systems</td>
<td>6</td>
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</tbody>
</table>
# Appendix Ila

## Teaching Assistant Data Sheet

<table>
<thead>
<tr>
<th>GTA Name</th>
<th>Course No. (e.g. 101)</th>
<th>Course Name</th>
<th>Year 1 20 - 20</th>
<th>Year 2 20 - 20</th>
<th>Year 3 20 - 20</th>
<th>Year 4 20 - 20</th>
<th>Year 5 20 - 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
<td></td>
<td>Su</td>
<td>Fa</td>
<td>Sp</td>
<td>Su</td>
<td>Fa</td>
</tr>
</tbody>
</table>

Complete graduate teaching assistant’s name; course number and course name taught; indicate enrollment in the semesters taught.

*Expand table as needed.*
## Appendix III

Students’ Entrance Abilities (Graduate Programs)

<table>
<thead>
<tr>
<th>Year</th>
<th>N (with GRE)</th>
<th>Mean Undergraduate GPA</th>
<th>Mean GRE Verbal</th>
<th>Mean GRE Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2010</td>
<td>6 (4)</td>
<td>3.31</td>
<td>382.5</td>
<td>610.0</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>5 (5)</td>
<td>3.39</td>
<td>400.0</td>
<td>648.0</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>4 (4)</td>
<td>3.43</td>
<td>295.0</td>
<td>720.0</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>10 (9)</td>
<td>2.74</td>
<td>427.8</td>
<td>500.0</td>
</tr>
<tr>
<td>Spring 2008</td>
<td>2 (1)</td>
<td>3.25</td>
<td>420.0</td>
<td>450.0</td>
</tr>
<tr>
<td>Fall 2007</td>
<td>8 (8)</td>
<td>3.34</td>
<td>431.3</td>
<td>601.3</td>
</tr>
<tr>
<td>Spring 2007</td>
<td>2 (1)</td>
<td>3.35</td>
<td>340.0</td>
<td>660.0</td>
</tr>
<tr>
<td>Fall 2006</td>
<td>5 (3)</td>
<td>2.67</td>
<td>470.0</td>
<td>486.7</td>
</tr>
<tr>
<td>Spring 2006</td>
<td>2 (2)</td>
<td>2.71</td>
<td>375.0</td>
<td>645.0</td>
</tr>
<tr>
<td>Fall 2005</td>
<td>10 (8)</td>
<td>3.62</td>
<td>421.3</td>
<td>593.8</td>
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</tbody>
</table>
# Appendix IV
Students’ Exit Abilities (Graduate Programs)

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>Mean GPA</th>
<th>Licensure Exam Results</th>
<th>Certification Test Results</th>
<th>Other Standardized Exam Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 – 10</td>
<td>10</td>
<td>3.85</td>
<td></td>
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</tr>
<tr>
<td>2008 - 09</td>
<td>16</td>
<td>3.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007 - 08</td>
<td>9</td>
<td>3.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 - 07</td>
<td>10</td>
<td>3.71</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2005 - 06</td>
<td>19</td>
<td>3.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Expand table as needed.*
# Appendix V

**Assessment Summary**

Marshall University

Assessment of the Program's Student Learning Outcomes

5 year summary

Component Area/Program/Discipline: Information Systems

<table>
<thead>
<tr>
<th>Program Level</th>
<th>Program’s Student Learning Outcomes</th>
<th>Assessment Measures (Tools)</th>
<th>Standards/Benchmark</th>
<th>Results/Analysis</th>
<th>Action Taken to improve the program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student preparation</td>
<td>Transcript Review</td>
<td>2 semesters programming</td>
<td>Require needed courses</td>
<td>Need evaluation procedure prior to entrance</td>
<td></td>
</tr>
<tr>
<td>2. System Specification</td>
<td>IS-605, Comprehensive Project, term papers</td>
<td>Professional standards</td>
<td>Employers value graduates</td>
<td>Continuation</td>
<td></td>
</tr>
<tr>
<td>3. Communication &amp; Teamwork</td>
<td>Course projects, comprehensive project</td>
<td>Professional standards</td>
<td>Student writing is weak.</td>
<td>More emphasis in TE-698</td>
<td></td>
</tr>
<tr>
<td>4. Hardware &amp; Software knowledge</td>
<td>IS-600, IS-621, IS-622, comprehensive project</td>
<td>Standard professional practice</td>
<td>Students doing well</td>
<td>Continuation</td>
<td></td>
</tr>
<tr>
<td>5. Software System Design</td>
<td>IS-610, IS-623, comprehensive project TE-698, comprehensive project</td>
<td>Professional standards</td>
<td>Employers value graduates</td>
<td>Continuation</td>
<td></td>
</tr>
<tr>
<td>6. Library research ability</td>
<td>Professional standards</td>
<td>Students starting to see the need</td>
<td>More in depth research required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. IT Deployment</td>
<td>IS-600, IS-610, IS-623 and comprehensive project</td>
<td>Project success</td>
<td>Students do well</td>
<td>Continuation</td>
<td></td>
</tr>
<tr>
<td>8. System Security</td>
<td>IS-651, IS-610</td>
<td>Industry Standards</td>
<td>More students need to take courses in this area</td>
<td>Curriculum revision to allow more electives.</td>
<td></td>
</tr>
<tr>
<td>9. New Technology</td>
<td>IS-624, IS-651, TE-698, comprehensive project</td>
<td>Industry Development</td>
<td>Students weak in area</td>
<td>More elective courses dealing with new technology</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix VI - Program Course Enrollment

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Required/Elective/Service</th>
<th>Delivery Method</th>
<th>Location</th>
<th>Year 1 2005-2006</th>
<th>Year 2 2006-2007</th>
<th>Year 3 2007-2008</th>
<th>Year 4 2008-2009</th>
<th>Year 5 2009-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 600</td>
<td>MIS</td>
<td>R</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>21 Su 2 Fa 10 Sp</td>
<td>7 Su 10 Sp 8</td>
<td>14 Su 10 Sp 10</td>
<td>8 Su 14 Sp 10</td>
<td>10 Su 8 Sp 8</td>
</tr>
<tr>
<td>IS 605</td>
<td>Systems Analysis</td>
<td>R</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>18 Su 7 Fa 19 Sp</td>
<td>19 Su 19 Sp 18</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IS 610</td>
<td>Systems Design</td>
<td>R</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>12 Su 6 Fa 20 Sp</td>
<td>12 Su 15 Sp 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 621</td>
<td>Information Structures 1</td>
<td>R</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>9 Su 9 Fa 22 Sp</td>
<td>6 Su 11 Sp</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IS 622</td>
<td>Information Structures 2</td>
<td>R</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>9 Su 9 Fa 20 Sp</td>
<td>5 Su 8 Sp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 623</td>
<td>Database Management</td>
<td>R</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>9 Su 14 Fa 17 Sp</td>
<td>18 Su 16 Sp 12</td>
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<tr>
<td>IS 625</td>
<td>Software Engineering</td>
<td>E/S</td>
<td>Td</td>
<td>HTN</td>
<td>2 Su 2 Fa</td>
<td></td>
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</tr>
<tr>
<td>IS 631</td>
<td>Information Security</td>
<td>E/S</td>
<td>Td</td>
<td>O</td>
<td>9 Su 4 Fa 10 Sp</td>
<td>10 Su 13 Sp 5</td>
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<tr>
<td>IS 645</td>
<td>GIS</td>
<td>E/S</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>7 Su 10 Fa 18 Sp</td>
<td>15 Su 6 2</td>
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</tr>
<tr>
<td>IS 646</td>
<td>Computer Systems Security</td>
<td>E/S</td>
<td>Td</td>
<td>O</td>
<td>6 Su 2 Fa</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>IS 647</td>
<td>IT Disaster Planning &amp; Recovery</td>
<td>E/S</td>
<td>Td</td>
<td>SC</td>
<td>11 Su 5 Fa</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IS 650</td>
<td>SpTp</td>
<td>E</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>4 Su 3 Fa 7 Sp</td>
<td>11 Su 4 Sp 2</td>
<td>7 Su 2 Sp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 651</td>
<td>SpTp</td>
<td>E</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>3 Su 3 Fa 7 Sp</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 655</td>
<td>Multimedia &amp; Electronic Dissem.</td>
<td>E</td>
<td>Td</td>
<td>SC</td>
<td>3 Su 8 Fa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 656</td>
<td>Comm &amp; Network Tech</td>
<td>E/S</td>
<td>Td</td>
<td>HTN</td>
<td>15 Su 1 Fa</td>
<td>1 Su 1 Fa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 680</td>
<td>Social Issues in Info. Systems</td>
<td>E</td>
<td>Td</td>
<td>HTN</td>
<td>3 Su 3 Fa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS 685</td>
<td>Independent Study</td>
<td>E</td>
<td>Td</td>
<td>HTN &amp; SC</td>
<td>2 Su 1 Fa</td>
<td>1 Su 1 Fa</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Indicate all program and service courses. Please include all special topics courses offered as well as independent studies. When listing Independent studies, please list the **number of independent study students enrolled**, but **DO NOT** include individual names or the titles of the independent studies. Please use the following codes:

**Required/Elective:** Required = R; Elective = E (Please indicate all that apply; e.g. E + S, if the course is both an elective and a service course).

**Delivery Method:** Traditional = Td, Online = O, Hybrid = H

**Location:** Huntington, South Charleston, Point Pleasant, etc.

*Expand table as needed.*
## Appendix VII
### Program Enrollment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New Students Admitted</td>
<td>12</td>
<td>7</td>
<td>10</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Grand Total of Students Enrolled in the Program</td>
<td>38</td>
<td>25</td>
<td>33</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>Graduates of the program</td>
<td>19</td>
<td>10</td>
<td>9</td>
<td>16</td>
<td>10</td>
</tr>
</tbody>
</table>

### MS IS Five-Year Enrollment and Graduates

![Graph showing MS IS Five-Year Enrollment and Graduates](chart.png)
### Appendix VIII
Job and Graduate School Placement Rates

<table>
<thead>
<tr>
<th>Year</th>
<th># of graduates employed in major field</th>
<th># of graduates employed in related fields</th>
<th># of graduates employed outside field</th>
<th># of graduates accepted to further graduate study</th>
<th># of graduates not accounted for</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2006</td>
<td>14</td>
<td>4</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>2006-2007</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>2007-2008</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2008-2009</td>
<td>12</td>
<td>1</td>
<td></td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2009-2010</td>
<td>8</td>
<td>2</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Five –Year Total</td>
<td>43</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
Letters from the Office of Assessment
This letter will document that the Office of Assessment did not receive an annual assessment report for the MS in Information Systems Program for the academic year 2008 – 2009 (report was due December 1, 2009). I will contact you at the beginning of the fall 2010 semester to discuss the report due December 1, 2010.

Sincerely,

Mary E. Reynolds

Mary E. Reynolds
Director of Academic Assessment

C: Dr. Betsy Dulin, Dean, CITE
Dr. Tom Hankins, Program Director
Information Systems
CITE

Dear Tom:

The Graduate Council and I have completed our evaluation of the MS in Information Systems’ assessment of student learning. This letter will provide my general comments and suggestions for improvement. Although the scoring rubric we used to evaluate assessment reports is attached, I will not include numerical ratings in this letter. The reason for this is that we used the attached rubric for the first time this year and, as you will see, it has changed considerably from the ones used in previous years. It raises the bar for what is considered excellent assessment considerably and, since it was not shared with programs before this assessment cycle, I’m not comfortable using it to give programs a formal rating this year. However, I ask that you use it for formative purposes to help improve your assessment plan. We also would appreciate your comments concerning this new rubric.

First, I’d like to thank you for your work in revising your assessment plan! You student learning outcomes are well articulated and cover higher levels of learning. It appears to me that the assessment measures you’ve chosen for each outcome also are well considered and complementary. I especially appreciate your outcome/course matrix. Finally, the rubric you’ve created provides a nice start upon which to build. You’ve done a great job, which I expect will result in continuous improvement of student learning in your program. I’ll look forward to seeing the first results of assessment next December.

Please see the attached rubric and letter to Deans, Chairs, and Faculty detailing general suggestions for an effective assessment program. If you have questions or concerns, please let me know.

Sincerely,

Mary E. Reynolds

Mary E. Reynolds
Director of Academic Assessment

C: Dr. Betsy Dulin, Dean, CITE
Dr. Bill Pierson, Division Chair  
Engineering and Computer Science  
Dr. Tom Hankins, Program Coordination  
Information Systems

Dear Bill and Tom,

The Graduate Council and I have completed our evaluation of the annual program assessment report for the MS in Information Systems. This letter will provide feedback in the following manner.
First, I will comment generally on each section of your report. Second, I will rate the following areas of the report on a four point scale (0–3, with 3 being the highest rating): student learning outcomes, assessment measures, and the feedback loop. Although I considered feedback from committee members, I made the final decision on ratings for all reports submitted. Third, I will offer suggestions for your consideration as you plan your assessment for the 2008-2009 academic year. Fourth, I will include my evaluation using the Primary Traits Analysis rubric and will include reviewers’ comments for your information.

General Comments

Your program goals are appropriate. The qualities you list as being expected of your graduates could easily be reworded to be student learning outcomes. In short, the goals you have listed on page 1 and in the course matrix on page 4 are more appropriately student learning outcomes than are the outcome listed in the outcome section of your narrative and in the chart on page 5. Let me first deal with the chart on page 5. Student preparation should be an “income” rather than an outcome of your program. Although I realize you suggest that not all students come to your program with this preparation, and must therefore receive it as part of your program, the student learning outcome should specify what this preparation is. From my reading it appears to be something like, “Students will be able to program specific software applications.” The second outcome should state exactly what the academic standards that students must meet and how they will show you they have met these. The third outcome should do the same. Finally the fourth outcome, that employers will value your graduates, is not a specific learning competency. It is, of course, important that employers value your students, but this is an indirect assessment measure, rather than a student learning outcome.

For the chart on page 4, I would recommend rewording your goals as follows:

When students complete the MS in Information Systems, they will be able to

1. Describe a situation as a system, specifying components, boundaries, and interfaces.
2. Effectively lead teams, collaborate with managers in defining needs and opportunities, and assist colleagues.

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3. Identify the hardware and software components of computer systems and their configurations.
4. Develop the specifications for a software system.
5. Gather and use information needed by Information Systems professionals.
6. Successfully deploy information technologies in various organizational settings.
7. Communicate effectively, in the discourse of the discipline, both orally and in writing.

The only thing I would suggest regarding the outcomes listed above is that you might want to rewrite numbers 1 and 3 to reflect higher order learning if that is appropriate. It might not be, because I know students must have knowledge before they move to higher levels of learning, but we are talking about what students will be able to do when they complete your program, and this is a graduate program. For #3, might students be able to compare and contrast the components of different systems? Might they be able to evaluate the most effective components for specific systems?

Your report shows that you are reviewing your curriculum and make use of an Advisory Council, both of which are good. However, to date, you do not show that the changes you make to your curriculum are based on data regarding student learning. As a starting place, you should identify appropriate assessments for each student learning outcome. You do identify some on your current report, e.g., final project, exams, etc. These need to be tied more specifically to outcomes. Remember that, when using exams, it’s probably more appropriate to use specific exam questions because it is unlikely that all questions will pertain to just one outcome. I also would suggest that you develop detailed scoring rubrics for assessment measures. For example, if oral presentations are evaluated on a scale of 4-1, with 4 meaning “outstanding,” 3 meaning “proficient,” 2 meaning “acceptable,” and 1 meaning “not acceptable,” you will be able to determine the mean class performance on each area of the rubric for the presentations. This will allow you to determine students’ strengths and weaknesses regarding this outcome. After developing the rubrics, you need to set benchmarks for acceptable performance. For the example above, you might expect different levels of performance at different points in the program. Perhaps for classes early in the program, your benchmark for mean performance across students might be 2.5 in all areas of the rubric, whereas by the time of program completion it might be at least a 3.

Ratings for Student Learning Outcomes, Assessment Measures, and the Feedback Loop

Student Learning Outcomes = 3. This rating was given because, although identified as program goals in your report, your student learning outcomes are comprehensive, measurable, support Marshall’s educational goals, and span multiple learning domains. I would suggest some of the wording mentioned above. Also, please note that most of the statements you identified as student learning outcomes in your report are not appropriate.

Assessment Measures = 1. This rating was given because several measures were identified that could relate to learning outcomes. It was difficult for me to evaluate this according to our present rubric because the assessment measures were not tied to the learning outcomes I suggested above. To move to level 2, you should include some indirect data (you allude to this type of data [advisory board, employer data] in your present report, but the information you glean from these sources should specifically address your student learning outcomes. Remember, however, that direct measures should be more numerous than indirect measures.
MS in Information Systems

Feedback Loop = 0. Your report did not show evidence that you have collected data regarding student learning and have made curricular modifications based on this information.

Suggestions to Consider as you plan your assessment strategies for the 2008-2009 academic year

I have the following suggestions for the upcoming academic year. First, I suggest that you identify more than one direct assessment measure (and at least one indirect measure) for each student learning outcome. Second, as you begin to collect assessment data, you not try to do everything at once. It is perfectly acceptable and encouraged to assess only a portion of your student learning outcomes each year. So, you may choose to do an in-depth assessment of one/third of your outcomes during year 1. If this is done using several assessment measures with detailed rubrics, you will be able to collect detailed data regarding the outcomes. These data should allow you to identify specific strengths and weaknesses regarding student learning (and hence, your program). Changes to strengthen these areas of learning can be implemented the following year, while you assess two more outcomes. This will allow you to assess all outcomes on a three-four year rotation and will give you sufficient time to allow curricular modifications to have an effect before the next assessment.

I appreciate the work you are doing to make your assessment stronger. If I can be of additional help, please do not hesitate to contact me at 62987 or at reynoldm@marshall.edu.

Sincerely,

Mary E. Reynolds
Interim Director of Assessment

C: Dr. Anthony Szwilski, Interim Dean, CITE
To: Dr. William Pierson, Chair, Information Systems  
From: Bob Edmunds, Coordinator for Program Review and Assessment  
Date: June 15, 2006

Yearly Assessment Report for: MS Information Systems

Thank you for submitting the Yearly Assessment Report for the program. Please use the information in this report to guide your assessment activities during AY 2006-2007.

The Yearly Assessment Report for documenting AY 2005-2006 assessment activities is due by October 3, 2006. If the program is scheduled for a program review during the 2006-7 academic year, the Program Review will suffice as the documentation of assessment activities and no separate report will be due.

Reviewer summary of yearly assessment report:
What follows is a brief critique of the report you submitted for the academic year 2004-2005. In most cases the report has been reviewed by members of the University Assessment Committee.

<table>
<thead>
<tr>
<th>Yearly Assessment Report Critique</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. a. Program goals: Program goals and learning outcomes appear to be reversed. Please revisit them. The program goals look more like competencies than goals.</td>
</tr>
<tr>
<td>b. Learning outcomes and data collection: The current outcomes relate to goals of the program. Such statements like “Employers value our graduates” and “Providing adequate preparation for incoming students” are more in line with program goals than outcomes. No data are reported.</td>
</tr>
<tr>
<td>c. Results: Results do not appear to come from any formal collection and analysis of data.</td>
</tr>
<tr>
<td>II. BOT Initiative #3: Not applicable to graduate programs.</td>
</tr>
<tr>
<td>III. Plans for current year: Development of a college wide assessment model.</td>
</tr>
<tr>
<td>IV. Assistance needed: Program requests help with the assessment process. Please contact this office for any help you may need.</td>
</tr>
<tr>
<td>V. Lessons learned: Assessment is a process that needs to be nurtured. Faculty buy-in is essential.</td>
</tr>
</tbody>
</table>

Review of the Assessment Summary Chart “Marshall University: Assessment of Student Outcomes.”

This chart will help the program and the University Assessment Committee monitor a program’s patterns of evidence. Please remember that a program does not have to assess every outcome every year; however, within a 3-4 year period of time all program objectives must be evaluated, results analyzed, and actions taken (feedback loop) documented.

The program has presented an assessment chart. This assessment chart is primarily designed to measure program goals and not specific student outcomes. The outcomes are really listed in the chart immediately preceding the assessment chart. This chart “relationship between goals and coursework”, found on page 5 of the report, should be used for assessment purposes. Data can be collected and analyzed using these outcomes as opposed to the ones which appear in the current assessment chart found on page 6 of the report.
Efficacy of Assessment:

Programs are evaluated in terms of the development of measurable learning outcomes, the use of viable assessment measures, and the implementation of an effective feedback loop. The current report has been evaluated based on these categories. This year the report shows program scores from 2000-2001 to the present.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Learning Outcomes</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>II. Assessment Measures</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>III. Feedback Loop</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total Overall Score</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Level of Implementation</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(efficiency of assessment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Score Ranges

<table>
<thead>
<tr>
<th>Score Ranges 0-3 in each of the three categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>A score of 0 indicates minimum activity in the category</td>
</tr>
<tr>
<td>A score of 1 indicates that a program is in the beginning stages of assessment</td>
</tr>
<tr>
<td>A score of 2 indicates that a program is making progress toward implementing a viable assessment program</td>
</tr>
<tr>
<td>A score of 3 indicates that a program is in the maturing stages of its assessment program</td>
</tr>
</tbody>
</table>

Levels of Implementation

<table>
<thead>
<tr>
<th>Efficacy of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A total overall score between 0 and 3 indicates</td>
</tr>
<tr>
<td>A total overall score between 4 and 6 indicates</td>
</tr>
<tr>
<td>A total overall score between 7 and 9 indicates</td>
</tr>
</tbody>
</table>

Interpretation:

The learning outcomes resemble program goals as opposed to measurable student outcomes. Outcome #1 relates to preparation prior to entering the program. Outcomes like this cannot be measured while the student matriculates through the program. While a variety of measures were listed, there were no specific measures. The program should evaluate specific measures to guarantee student competency of the objectives. Much of the learning that takes place should be as a result of program requirements and how the student interacts with such measures. There are indications of changes in the program, but generally without the use of data derived as the result of an assessment activity.

Recommendations:

The program is encouraged to determine the specific competencies a graduate with a degree in Information Systems should have. Then the program should measure those competencies and report the results. There are two charts presented. One chart is the relationship between the goals and the course work. Tweaking these goals into
measurable outcomes should provide the basis for the assessment. The second chart is primarily related to program goals and not learning outcomes. This chart could be dispensed with in favor of the first chart. Gather data and use the data and resulting analysis of the data to institute program changes.

General Comments:

The program is involved in the assessment process, but the challenges are there to evaluate student performance and provide conclusions that will continue to improve student performance and improve the quality of the program.

Thanks so much for continuing to aid Marshall in its ongoing assessment efforts.

Enclosures