Undergraduate Academic Program Review

Name of Program:  Management Information Systems (B. S. in Business)

Name and contact information for person completing the review:

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Assistant Professor of Management Information Systems  
Raj Soin College of Business  
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Barbara.denison@wright.edu

Indicate whether the program is  
[X] on campus  
_____ online  
_____ both

NCA Criterion 1—Mission and Integrity  
NCA Criterion 2—Preparing for the Future  
NCA Criterion 3—Student Learning and Effective Teaching  
NCA Criterion 4—Acquisition, Discovery, and Application of Knowledge  
NCA Criterion 5—Engagement and Service

I. Program Mission (NCA Criterion 1 and Criterion 5)
• program mission statement (should identify constituency served) (1A, 1B)  
• consistency with university mission (1C, 1E)  
• consistency with college mission (1C, 1E)  
• consistency of goals, learning objectives with program mission (1C)

The strategic objective of the ISOM department is to be the department of choice of organizations in the Miami Valley, from which WSU draws most of its undergraduate students. Our strategic goal is to seek a leadership role in all relevant knowledge creation activities by creating outstanding internal capabilities in research and education.

The MIS program educational objectives are to:
• Prepare individuals to deploy information technology to support organizations.  
• Prepare individuals to understand, perform, and manage the process of information systems development.  
• Prepare individuals for entry-level positions in information technology or in a graduate school program.  
• Prepare individuals for a process of lifelong learning.

The expected learning outcomes are that graduates will:
• Demonstrate an understanding of the role of information systems in an organization.
• Be able to apply project management concepts and tools while working on an information systems development team.
• Demonstrate an understanding of the social and ethical issues in information systems.
• Be able to perform the role of a systems analyst in the systems development life cycle.
• Be proficient in application development.
• Be familiar with networking and telecommunications concepts.
• Contribute to organizational database design (logical and physical) projects.
• Be able to learn independently.

In addition, graduates of the Raj Soin College of Business must meet the program educational objectives and learning outcomes for all business students to:

• Be responsible and tolerant citizens in their communities.
  o Outcome: Behave in an ethical manner and exhibit professional responsibility in their business careers.
  o Outcome: Acquire an understanding of and appreciation for cultural, racial, and gender differences.
• Be able to effectively communicate with others.
  o Outcome: Demonstrate effective oral and written communication skills.
• Understand the cross-functional nature of business.
  o Outcome: Students will integrate functional business disciplines in a decision-making context.
• Possess problem-solving and information technology skills relevant to current business practice.
  o Outcome: Students will show their understanding of statistical theory and application to a data set.
  o Outcome: Students will apply spreadsheet and database skills in a business practice setting.
• Have teamwork and leadership skills necessary to effectively lead teams in solving business problems.
  o Outcome: Students will be able to recognize the characteristics of effective teams.
  o Outcome: Students will be able to recognize key elements that distinguish leadership from management.
• Possess an appreciation for the interdependencies that exist among nations, economies and peoples.
  o Outcome: Students will recognize the nature of global business competition and the cultural differences that impact decision-making in a global environment.
• Understand the principles and concepts of contemporary business practice contained in the Undergraduate Business Core.
Outcome: Students will demonstrate the ability to prepare, present and analyze external financial reports.

Outcome: Students will be able to explain the meaning of the “marketing concept” and describe the major strategies that are related to its implementation.

Outcome: Students will be able to explain the marketing exchange process, including an ability to describe the role of the marketing mix.

Outcome: Students will be able to calculate a firm’s cost of capital and prepare a capital expenditure analysis solution for a given set of financial data.

Outcome: Students will be able to evaluate and improve supply chain operations in their organizations.

Outcome: Students will be able to design and build a small-scale database application using organizational information requirements.

The mission of Wright State University follows:

Wright State University will be a catalyst for educational excellence in the Miami Valley, meeting the need for an educated citizenry dedicated to lifelong learning and service. To those ends, as a metropolitan university, Wright State will provide: access to scholarship and learning; economic and technological development; leadership in health, education, and human services; cultural enhancement, and international understanding while fostering collegial involvement and responsibility for continuous improvement of education and research.

The mission of the Raj Soin College of Business follows:

To prepare students to be successful and ethical leaders capable of making valued contributions within the global marketplace; to advance knowledge through research; and to provide professional, entrepreneurial, and economic development assistance to individuals, businesses, organizations, and government in the Greater Miami Valley and the State of Ohio.

The MIS educational objectives listed are consistent with the university and college missions. The college and department program objectives align with creating “an educated citizenry dedicated to lifelong learning and service.” The college objectives of “be responsible and tolerant citizens in their communities” and “possess an appreciation for the interdependencies that exist among nations, economies and peoples” support creating an educated citizenry and international understanding. The specific information systems objectives contribute not only to an educated citizenry but to the “economic and technologic development” that Wright State is dedicated to providing. This MIS program has graduated more than 650 MIS majors in the last seven years. The majority live and work in the Miami Valley. The MIS program provides co-op and intern students to numerous local employers. The MIS senior projects have helped dozens of small businesses solve information systems problems.
We analyze how the missions of Wright State University and of the Raj Soin College of Business influence the department and program objectives. We view mission statements as having two influences on program objectives: shaping influence (direct transposition of university and college mission into program) and reflective influence (embedding of broad mission and purpose into program objectives). These are shown below:

<table>
<thead>
<tr>
<th>Shaping influence</th>
<th>How</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wright State University will be a catalyst for educational excellence in the Miami Valley</td>
<td>ISOM department objective is to be the department of choice of organizations in the Miami Valley</td>
</tr>
<tr>
<td>RSCOB: To prepare students to be successful and ethical leaders …..in the Greater Miami Valley and the State of Ohio.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reflective influence</th>
<th>How</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wright State University will be a catalyst for educational excellence in the Miami Valley, meeting the need for an educated citizenry dedicated to lifelong learning and service.</td>
<td>Prepare individuals for entry-level positions in information technology or in a graduate school program.</td>
</tr>
<tr>
<td></td>
<td>Prepare individuals for a process of lifelong learning.</td>
</tr>
<tr>
<td>RSCOB: To prepare students to be successful and ethical leaders capable of making valued contributions within the global marketplace; to advance knowledge through research; and to provide professional, entrepreneurial, and economic development assistance to individuals, businesses, organizations, and government in the Greater Miami Valley and the State of Ohio.</td>
<td>Deploy information technology to support organizations.</td>
</tr>
<tr>
<td></td>
<td>Understand, perform, and manage the process of information systems development.</td>
</tr>
</tbody>
</table>

Wright State University and the Raj Soin College of Business are both focused sharply on meeting the needs of businesses and organizations in the Miami Valley area. This focus drives the department and program objectives.

- extent to which program prepares students to "live and work in a global, diverse, and technological society" (4C)

All Raj Soin College of Business graduates are expected to “Possess an appreciation for the interdependencies that exist among nations, economies and peoples.” Students are expected to “recognize the nature of global business competition and the cultural differences that impact decision-making in a global environment.” MIS majors complete the business core curriculum. In addition, effective spring quarter, 2006, the MIS faculty adopted the textbook *A Gift of Fire*, Sara Baase. The coverage of the social, legal, and ethical issues in the book has been integrated into the required upper level MIS courses. Technology is closely intertwined with the globalization of the workforce and a number of issues are addressed.
MIS majors are expected to be proficient in technology to be able to obtain employment in information technology. The MIS requirements include technological skills in computer programming, systems analysis and design, database management, and telecommunications. As important is the emphasis on applying technology to solve business problems and understanding the role of information systems in organizations.

- extent to which program, through its curriculum and co-curriculum, fosters civic engagement and social responsibility (5A, 5C)

The social, legal and ethical issues for computers and the Internet is closely aligned with the curriculum, as illustrated by the use of *The Gift of Fire* text. In addition, all senior MIS majors do a systems development project as part of the capstone course, MIS 495, Information Systems Development and Project Management. Teams of students work with a business or non-profit on a systems development project. Many of these projects are referred by the Small Business Development Center. The students annually contribute thousands of hours assisting small businesses and non-profits, e.g. County Corp, Greene County Habitat for Humanity.

- extent to which program fosters life-long learning (4A)

The information systems faculty tries to model the necessity to engage in continuous learning. Faculty members attend MIS Club or classes with speakers and participate in the question and answer sessions. The department has a student advisory board that meets regularly with department faculty for a mutual exchange of ideas, concerns, and understanding of each other’s needs.

Information Systems requires constant learning to understand, evaluate, and apply new technologies. Students are required to research and report on new technologies in a number of classes. The senior project requires independent learning to research the needs of a client and to choose and/or develop and apply the appropriate technological solution.

- interrelationship with general education (1C, 4B)

MIS students take the university general education courses as identified by the university and the Raj Soin College of Business. Typically, they begin their MIS major courses as juniors. They are required to have a minimum of 45 credit hours before being admitted into the college of business; most of these hours come from general education courses. Further, they are required to take the basic courses in each business discipline.

- interrelationship with other WSU programs (1C)

One of the most important WSU programs for the MIS students is the Writing Across the Curriculum program that forces them to continuously improve their writing skills in both business courses in general and, specifically, in MIS courses. Faculty can also recommend that students visit the university Writing Center for help with their papers. Writing is extremely important for future business leaders and communication skills are emphasized by our employers.
We work closely with the Department of Computer Science and Engineering. Computer Science teaches the required courses of CS 208 and CS 209, Computer Programming for Business. Computer Science offers a number of electives that MIS majors may take. In 2004, we began our efforts to obtain accreditation for the MIS program from the Computing Accreditation Commission (CAC) of ABET. As part of strengthening our assessment, preparing our Self-Study report, preparing and maintaining our course portfolios, we communicate regularly with Computer Science course coordinators.

• community engagement (5C, 5D)

Student Projects
One of the strengths of the management information systems program is its interaction with business, nonprofit organizations, and other college and university organizations. These provide learning opportunities for students and also provide services to these various organizations. MIS 495, Information Systems Project Management and Development, is the capstone class for the major. In this class, student teams of four or five students, work with a business or non-profit on a quarter long information systems project. The typical project might be development of a website or development of a database for inventory tracking. The department works closely with the Small Business Development Center to identify clients. Client evaluations are completed at the end of each project and regularly cite the professionalism of the students and the contribution that the students have made. Depending on enrollment in the MIS major, typically students complete 15 to 20 projects per year.

Internships and Placement of Graduates
The department has designated a faculty member to facilitate and increase its internship program. Although it does not at this time require an internship for its students, the program is growing and students are increasingly deciding that an internship experience is important for their resumes and may lead to jobs. In addition to the students that choose to do an internship for credit one quarter, many students participate in co-operative education. The department works closely with employers including International Truck and Engine, WorkflowOne, and NCR, which sponsor multiple internships each year, as well as smaller organizations. The department has worked with students and employers to participate in the Third Frontier Internship program, in which the State of Ohio pays for a portion of the students’ wages.

We work closely with businesses to ensure that Wright State is their choice for information systems professionals. For example, in 2006, we met with Reynolds and Reynolds executives to hear a presentation on their strategy and helped them identify Chinese speaking interns. We worked with WorkflowOne spring quarter to identify students for summer internships. They hired four Wright State MIS majors and we continue to work with them to identify interns.

In May, 2006, we hosted Deloitte Consulting for a day. They made presentations to two classes on the ECSS project that the Air Force will be awarding. This project is expected to require hundreds of local information systems jobs in the next decade. In addition to making a presentation to Deloitte and facilitating the classroom presentations, we hosted a
reception for students and alumni and community representatives from GDITA, the i-Zone, and the Dayton Chamber of Commerce to meet the Deloitte team.

**Digital Mixer**
The Information Systems faculty initiated the Digital Mixer in 2006. The Digital Mixer is a networking event for students in Miami Valley universities and IT professionals. The event was held Tuesday, February 7, 2006, from 4:30 P.M. – 6:30 P.M in the Wright State University Student Union. The sponsoring organizations were the Raj Soin College of Business and Career Services of Wright State University, the Greater Dayton IT Alliance, the Dayton Area Chamber of Commerce, and the i-Zone. Over 174 students, faculty, business professionals and non-profit representatives attended including City of Dayton Mayor Rhine McLin.

Business feedback was very positive. Representative comments included: “Many students I talked to had researched the companies that were participating. I was impressed with their level of understanding of my company” and “It was fun and I got a lot of great applicants from the event.” Students particularly commented “I enjoyed the open atmosphere to communicate with IT professionals in the Dayton business world.”

This collaboration will provide more career opportunities to our MIS majors and also enhances the visibility of the ISOM department as a leader in information technology in the Dayton area. The 2007 Digital Mixer is scheduled for February 20, 2007.

**ISOM Corporate Board of Advisors**
A Corporate Board of Advisors was established for the Information Systems and Operations Management Department in fall of 2003. Members include corporate leaders from the following organizations:

- WCI
- Ross Group, Inc.
- EDAptive Computing, Inc.
- PQ Systems, Incorporated
- BTAS, Inc.
- NCR
- Nash Finch Company
- Datta Associates
- FKI Logistex
- LexisNexis
- Greater Dayton IT Alliance
- GE Aircraft Engines
- First Student Corp.
- Standard Register
- Dept of the Air Force
- NCR Corporation
- Grandview Hospital and Medical Center
- Standard Register
- International Truck and Engine Corporation
- Pepsico
- Bank One
- CSC
- Bon-Ton Stores, Inc.
- Modern Technology Corp
- Limited Brands, Inc.
- NCR
- MeadWestvaco Corporation
- Dayton Development Coalition
- Multimax
- The Proctor & Gamble Co.
- Jayna, Inc.
- Reynolds & Reynolds
- Deloitte Touche
- LOGTEC, Inc.
The Corporate Board of Advisors has helped increase our community outreach, review curriculum, supported us on our application for ABET accreditation for the MIS program at the undergraduate level, and helped us with development of the Master of Information Systems. The Master of Information Systems proposal is in the final stages of approval by the Ohio Board of Regents.

II. Program Description (NCA Criterion 2)
- brief history of program, emphasizing past seven years (e.g., changes in administration, change in program direction, new degrees, minors, or certificates, de- or re-activation of program), including recommendations of any previous internal and/or external program reviews

Department Administration
Barbara Denison was chair of the Information Systems and Operations Management Department from September, 1995 to July, 2003. She currently chairs the MIS Curriculum Committee and coordinates the ABET accreditation. Dr. Vikram Sethi was chair from summer, 2003 to summer, 2006 and is currently serving as Advisor, Corporate Programs and Relations to the Raj Soin College of Business and Professor, Management Information Systems. Dr. Andrew Lai is serving as Interim Chair and is Professor Emeritus. A search is underway for a department chair to being fall, 2007.

Curriculum
Beginning in January, 2002, the college and department did a major evaluation and redesign of its curriculum as part of a conversion from a three credit-hour basis for courses to a four credit-hour basis. Briefly, MIS 215, Business Data Structures, increased from three to four credit hours for more practice programming assignments and labs. MIS 305, Business Operating Systems, increased from three to four credit hours, allowing more in depth coverage. MIS 415, Business Database Systems, increased from three to four hours. Material on Transaction Management, and basic concepts of OLAP, Data Mining, and Data Warehouses were added to the course. MIS 425, Business Networks and Telecommunications, increased from three to four credit hours.

The two course Systems Analysis and Design sequence, totaling six credit hours, was redesigned to a four credit hour course in Analysis and Design of Information Systems (MIS 325) and a four credit hour course in Systems Development and Implementation, (MIS 450). This enabled us to add a number of topics including: working with PHP, Apache, MySQL, and using state of the art methods and techniques such as CMMI, Extreme programming, Aspect programming, and Critical Chain Project Management.

A Corporate Board of Advisors was established for the Information Systems and Operations Management Department in fall of 2003. Members of the board volunteered to complete a detailed review of courses including syllabi, course objectives, learning outcomes, and major assignments.

Recommendations from Computing Accrediting Commission
In 2004, we began the process of applying for accreditation by the Computing Accreditation Commission (CAC) of ABET, Inc. Our MIS program Self-Study report was submitted July 15.
2005 and the team visited in November, 2005. We received the draft report in January, 2006 and submitted our response in February. In June, we submitted a more detailed report of our assessment activities for winter and spring quarters, 2006. A table summarizing their findings and our response is attached as Appendix I.

Our efforts resulted in an improvement in the final report from ABET which we received in October. The final result is that the Bachelor of Science in Business MIS program is accredited by the Computing Accreditation Commission (CAC) of ABET. We do have to submit an Interim Report July 1, 2007 on our ongoing assessment. Specifically, we are to submit ongoing analysis of our survey to alumni and the quarterly summaries of our assessment activities.

- **number of students served**

In addition to our majors, we teach MIS 300, Introduction to Management Information Systems. We teach 12 sections a year, with an average of 35 students per section.

- **number of majors**

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS majors</td>
<td>287</td>
<td>288</td>
<td>277</td>
<td>223</td>
<td>163</td>
<td>132</td>
<td>120</td>
</tr>
<tr>
<td>University College</td>
<td>159</td>
<td>144</td>
<td>104</td>
<td>70</td>
<td>38</td>
<td>49</td>
<td>57</td>
</tr>
<tr>
<td>Pre-MIS</td>
<td>69</td>
<td>69</td>
<td>76</td>
<td>62</td>
<td>51</td>
<td>37</td>
<td>45</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>515</td>
<td>501</td>
<td>457</td>
<td>354</td>
<td>252</td>
<td>218</td>
<td>222</td>
</tr>
</tbody>
</table>

- **number of minors**

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS Minors</td>
<td>33</td>
<td>31</td>
<td>26</td>
<td>17</td>
<td>unavailable</td>
<td>5</td>
</tr>
</tbody>
</table>

- **number of faculty**

The faculty teaching in the MIS program are listed below. Dr. Andrew Lai is serving as Interim Chair and Professor Emeritus.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Rank</th>
<th>Degree</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vikram Sethi</td>
<td>Professor</td>
<td>PhD in MIS</td>
<td>University of Pittsburgh</td>
</tr>
<tr>
<td>Vincent Yen</td>
<td>Professor</td>
<td>PhD in OR</td>
<td>Ohio State University</td>
</tr>
<tr>
<td>Jung Choi</td>
<td>Assistant Professor</td>
<td>PhD in MIS</td>
<td>University of Texas at Arlington</td>
</tr>
<tr>
<td>Martin Davis</td>
<td>Visiting Assistant Professor, Adjunct Contract</td>
<td>PhD in CS</td>
<td>Georgia Institute of Technology</td>
</tr>
<tr>
<td>Barbara Denison</td>
<td>Assistant Professor</td>
<td>MBA, MS in CS</td>
<td>University of Dayton, Wright State</td>
</tr>
<tr>
<td>Kevin Duffy</td>
<td>Assistant Professor</td>
<td>PhD in MIS</td>
<td>Florida State</td>
</tr>
<tr>
<td>Arijit Sengupta</td>
<td>Assistant Professor</td>
<td>PhD in CS</td>
<td>Indiana University</td>
</tr>
<tr>
<td>Anand Jeyaraj</td>
<td>Assistant Professor</td>
<td>PhD in Business</td>
<td>University of Missouri – St. Louis</td>
</tr>
</tbody>
</table>
• student/faculty ratio, average class size

Average Section Sizes for MIS Classes

<table>
<thead>
<tr>
<th>MIS Course</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Data Structures</td>
<td>29</td>
<td>30.5</td>
<td>28</td>
<td>24.7</td>
</tr>
<tr>
<td>Intro to MIS</td>
<td>35</td>
<td>35.6</td>
<td>36.9</td>
<td>36.6</td>
</tr>
<tr>
<td>Intro to MIS Lab</td>
<td>26.6</td>
<td>28</td>
<td>28</td>
<td>24.8</td>
</tr>
<tr>
<td>Systems Analysis &amp; Design</td>
<td>35.8</td>
<td>35</td>
<td>24.7</td>
<td>31</td>
</tr>
<tr>
<td>Systems Development &amp; Implementation</td>
<td>28.6</td>
<td>33.4</td>
<td>29.2</td>
<td>14.7</td>
</tr>
<tr>
<td>Business Operating Systems</td>
<td>33.8</td>
<td>35.5</td>
<td>41.3</td>
<td>33.3</td>
</tr>
<tr>
<td>Business Database Systems</td>
<td>33</td>
<td>33.2</td>
<td>29.8</td>
<td>39.5</td>
</tr>
<tr>
<td>E-Business Strategy, Design, &amp; Application</td>
<td>24</td>
<td>26</td>
<td>36</td>
<td>34.7</td>
</tr>
<tr>
<td>Business Networks and Telecommunications</td>
<td>26.4</td>
<td>31.8</td>
<td>29.5</td>
<td>32.7</td>
</tr>
<tr>
<td>IS Project Management and Development</td>
<td>16.9</td>
<td>15.6</td>
<td>17.3</td>
<td>15</td>
</tr>
</tbody>
</table>

The latest Academic Data Series listed the average section size for the Information Systems and Operations Management Department was 35.06 in 2004-05.

• balance in rank of program faculty

The MIS faculty consist of two professors, one tenured assistant professor, five tenure track assistant professors, and one lecturer. It is anticipated that two assistant professors will apply for promotion and tenure fall, 2007. Dr. Martin Davis is in a non-tenure track position and directs the M.S. in Logistics and Supply Chain and will be director of the Master of Information Systems, anticipated to start fall, 2007.

• number of staff

The ISOM department of 14 faculty is supported by a full time department support supervisor and an office assistant working twenty-one hours a week. The office also has student workers for clerical tasks typically working a total of 55 hours per week.

• diversity (gender, race, ethnicity) of majors, faculty, and staff

Of the MIS faculty listed above, there are three women, and five of Asian or Indian descent.

The diversity of students as listed in the 2006 Fact Book follows:
Kevin Watson, Business Manager for the Raj Soin College of Business compiled the following data for the ISOM department. He was not able to separate the operations management and MIS programs. This report encompasses budget and expenditures for the entire department. Also note that for FY03-04 and FY04-05 expenditures from the ISOM program fund were negative. This simply means that we received more in donations than we spent for those two years.

**Budget: ISOM Dept.**

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Personnel &amp; Benefits:</td>
<td>$1,341,903</td>
<td>$1,407,571</td>
<td>$1,398,608</td>
<td>$1,544,071</td>
<td>$1,614,950</td>
<td>$1,652,885</td>
</tr>
<tr>
<td>Total Operations:</td>
<td>$104,868</td>
<td>$194,119</td>
<td>$256,719</td>
<td>$264,277</td>
<td>$244,003</td>
<td>$244,745</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>$1,446,771</td>
<td>$1,601,690</td>
<td>$1,655,327</td>
<td>$1,808,348</td>
<td>$1,858,953</td>
<td>$1,897,630</td>
</tr>
</tbody>
</table>

| Donation to Foundation Accounts | $1,325.00 | $2,920.00 | $1,226.00 | $2,725.00 | $25,858.00 | $28,674.00 |

| Donations to the unrestricted department foundation fund: | $120 | $235 | $125 | $1,305 | $925 | $1,310 |

**Program cost:**

<table>
<thead>
<tr>
<th>Operations:</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Expenditures</td>
<td>$1,632,336</td>
<td>$1,580,552</td>
<td>$1,813,733</td>
<td>$1,932,280</td>
<td>$2,073,877</td>
<td>$2,160,567</td>
</tr>
</tbody>
</table>

| Program Foundation Fund (excluding restricted or designated foundation funds): | $799 | $376 | $225 | $(1,005) | $(665) | $0 |
• facilities and equipment/instrumentation
• technology and information resources and services

Electronic Classrooms
There are currently 53 electronic classrooms across the campus that can be scheduled for class use by any of the faculty at Wright State University. The Raj Soin College of Business’ building, Rike Hall, currently has 15 electronic classrooms each containing a large overhead projector, a stereo audio system, a computer with LCD panel, a VCR unit, and an electronic switching unit to select which input device to display on the overhead projector. In each electronic classroom, the computer system, VCR unit, switching component, LCD panel, and stereo amplifier are housed in a wooden podium to provide a single convenient location to teach and operate the equipment from.

Each podium in the college contains at least a Pentium III 1 GHZ or greater PC with a 40GB or larger hard drive, a CD-ROM drive, a DVD drive, an internal Zip drive, a floppy disk drive, and a 15” LCD panel securely attached to the top of the podium. A USB extender cable enables an instructor to connect external USB devices like remote controls and flash drives to the computer system. The switching component has auxiliary video and sound inputs to connect an external laptop to the projector and sound system. Each computer is connected to the Campus Network and with the proper authentication can access the Internet and Novell network file storage.

In addition, each electronic classroom computer has the following software installed on them: Windows XP operating system with latest security patches and updates installed, Microsoft Office XP Professional software (Access, Excel, Front Page, PowerPoint, Word), Novell network client software, Hummingbird FTP and Telnet utility, QuickTime player, Real One player, a DVD player software, Adobe Acrobat Reader, and Win Zip file utility.

All hardware and software support for the electronic classroom equipment and computers is handled by the Center for Teaching and Learning (CTL) support staff. CTL also performs proactive maintenance by re-imaging the hard drives of the classroom computers once a week to keep the computers in the best possible operating condition. A phone located next to the podiums can be used to notify CTL or the College Technology Manager of an urgent problem with the equipment in order to provide immediate assistance to an instructor. Faculty can also request that specific software for instructional use be installed on a particular classroom computer by contacting the College Technology Manager. The College Technology Manager and the CTL Support staff meet several times a year to discuss the purchasing of new equipment for the classrooms and to discuss any problems encountered using the existing classroom equipment.

One limitation of the podium systems expressed by the faculty is the inability to move the fixed podium stations to a different location in the classroom and their awkward placement in the corner of the room instead of in the middle of the classroom. This issue is being addressed and as we renovate / build new electronic classrooms. Careful consideration will be given to the design and placement of the podium computer stations in these classrooms.

Teaching Labs
There are currently 15 teaching labs across the campus that can be scheduled for class use by any of the faculty at Wright State University. All the teaching labs include an instructor PC,
24 to 36 student workstation computers, an adaptive workstation for disabled students, and a networked laser printer. A few of the labs also have a scanner available. Faculty can reserve the use of a teaching lab for the quarter by contacting the Training Administrator for CaTS. Two of the teaching labs, room 005 and 012 Library Annex, are used primarily by the ISOM department and priority is given to the department when reserving in these rooms.

The workstations in the various teaching labs range from Pentium III 1 GHz processors to Pentium 4 2 GHz processors. All workstations have at least a 15” display, a 1.44MB floppy drive, a CD-ROM or CD-RW/DVD drive, and a 250MB Zip drive. Each workstation has the following software installed on them: Windows XP operating system with latest security patches and updates installed, Microsoft Office XP Professional software (Access, Excel, Front Page, PowerPoint, Word), SPSS 12, SAS 8.2, Mathematica 4, Novell network client software, Hummingbird FTP and Telnet utility, QuickTime player, Real One player, a DVD player software, Adobe Acrobat Reader, Adobe Photoshop, and Win Zip file utility. Each computer is connected to the Campus Network and with the proper authentication can access the Internet and Novell network file storage.

All teaching labs are owned and operated by the Computing and Telecommunications Services (CaTS) department. CaTS staff are responsible for installing new hardware and software in the labs and for troubleshooting any equipment problems. Faculty can request that a specific software application be installed in a lab for class use as long as 6 weeks advanced notice is given to CaTS to properly test and install the software on the network. The faculty must also provide CaTS with proof that the software has been properly licensed to be installed in the networked lab environment.

**MTC Technologies Trading Center**
The MTC Technologies Trading Center in Rike Hall is available for use as a teaching lab when not used by the Finance department.

**Open Computer Labs**
Computing and Telecommunication Services (CaTS) owns, operates, and maintains many on-campus computer labs. These labs offer industry-standard computer platforms, as well as a wide variety of application programs and comprehensive Internet access. These labs are open to all Wright State University students who are currently registered for classes and all Wright State faculty and staff for educational use. Courses and training sessions are held in the computer classrooms on various dates and times during each quarter. CaTS has a staff of two full-time desktop technicians to manage and maintain all the computer hardware and software in the labs. If specific software required for a class is not available on the network or in the CaTS computer classroom, a faculty member can contact the CaTS Lab Support Personnel and consult with them on the installation of the software in one or more of the labs. A two month notice is required for installing, testing, and training on the new software. All software requests are to be made by Faculty only and must include proof of proper licensing and a copy of the installation media. Lab assistants are available in many of the CaTS labs to provide basic hardware and software assistance when needed. Further assistance can be attained by contacting the CaTS Help Desk or the College Technology Manager.

There are approximately 7 open computer labs across campus available 24 hours a day, 7 days a week during the quarter for general student use. These labs vary in size ranging from the smallest with 10 workstations to 64 workstations in the large Mega lab. All open computer labs with 20 workstations or more have an adaptive workstation for disabled students and a...
networked laser printer. A few of the labs also have a scanner available. Students can obtain assistance in using the labs from the CaTS Help Desk during normal business hours.

The workstations in the various open labs range from Pentium III 1 GHz processors to Pentium 4 2 GHz processors. All workstations have at least a 15” display, a 1.44MB floppy drive, a CD-ROM or CD-RW/DVD drive, and a 250MB Zip drive. Each workstation has the following software installed on them: Windows XP operating system with latest security patches and updates installed, Microsoft Office XP Professional software (Access, Excel, Front Page, PowerPoint, Word), SPSS 12, SAS 8.2, Mathematica 4, Novell network client software, Hummingbird FTP and Telnet utility, QuickTime player, Real One player, a DVD player software, Adobe Acrobat Reader, Adobe Photoshop, and Win Zip file utility. Each computer is connected to the Campus Network and with the proper authentication can access the Internet and Novell network file storage.

Two of the open computer labs are located in the Raj Soin College of Business building Rike Hall. The 152 Rike Hall Lab consists of 28 Pentium 4 3.2GHz workstations with 1 GB RAM, 80GB hard drive, a DVD/CDRW combo drive, a 1.44MB floppy drive, USB and FireWire ports, and a 17” LCD display. Each workstation has the following software installed on them: Windows XP operating system with latest security patches and updates installed, Microsoft Office XP Professional software (Access, Excel, Front Page, PowerPoint, Word), SPSS 12, SAS 8.2, Mathematica 4, Novell network client software, Hummingbird FTP and Telnet utility, QuickTime player, Real One player, a DVD player software, Adobe Acrobat Reader, Adobe Photoshop, and Win Zip file utility. Each computer is connected to the Campus Network and with the proper authentication can access the Internet and Novell network file storage. The following business software is also installed on these workstations: Arena 7.0, DreamWeaver MX 2004, Visual Studio NET, Project 2003, PHStat 2.0, and The Management Scientist 5.

Ten more workstations with the same hardware and software configurations are located in Rike Hall in the 2nd Floor Lobby lab area. All open computer labs are owned and operated by the Computing and Telecommunications Services (CaTS) department. CaTS staff are responsible for installing new hardware and software in the labs and for troubleshooting any equipment problems. CaTS funds and maintains a 3 to 4 year replacement cycle on all lab equipment.

**ISOM Department PC Lab**

The ISOM department has a computer lab located next to the department office used exclusively for ISOM class computer projects. Access to the department computer lab is limited and only students enrolled in specific ISOM classes are allowed access to the equipment. The lab is equipped with 8 PC workstations Pentium 4 1.8GHz workstations with 512MB RAM, 40GB hard drive, a DVD/CDRW combo drive, a 1.44MB floppy drive, a 250MB Zip drive, USB ports, and a 17” LCD display. A networked laser printer is available as well as a scanner.

Each workstation has the following software installed on it: Windows XP operating system with latest security patches and updates installed, Microsoft Office XP Professional software (Access, Excel, Front Page, PowerPoint, Word), DreamWeaver MX 2004, Novell network client software, Hummingbird FTP and Telnet utility, Adobe Acrobat Reader, and Win Zip file utility. Each computer is connected to the Campus Network and with the proper authentication can access the Internet.
All hardware and software for this lab is installed and maintained by the College Technology Manager. Specific software for a particular project can be installed on the workstations only with the assistance of the Technology Manager and with the proper proof of software licensing. A lab assistant staffed by the ISOM department is available in the lab for general assistance with the workstations. Additional technical support is provided by the Faculty and Technology Manager.

**Web Server Space**
Space is rented on Interland for the MIS 345 class and for senior seminar projects. By using rented space, an MIS faculty member, Joan Lumpkin, is able to be administrator. This allows her access to look at student projects if they have problems, reset or temporarily suspend passwords after due dates, etc.

**MSDNAA**
The ISOM department purchases a yearly subscription to the Microsoft Development Network Academic Alliance software program. This program provides the ISOM department faculty and students licenses to virtually all of the Microsoft family of software development tools, applications, and servers. Visual Studio.NET, Visio 2003, and Project 2003 are currently the most used MSDNAA software. Faculty can contact the College Technology Manager to have any of the MSDNAA software installed on their personal computer or in a teaching lab. Installation CDs for MSDNAA software currently being used in ISOM courses are available in the ISOM department for checkout by students. The yearly software subscription fee is paid out of the department budget.

**Oracle Software**
The department has an academic license for the Oracle database software which is used primarily in the Business Database Systems class. Oracle is being used on the Unix platform and students can access on campus or remotely.

**Other Software (Management Scientist, Arena, PHStat)**
Several software applications are used exclusively by ISOM faculty for instructional use and are available in the open computer labs located in the college. These applications are licensed by the department and consist of: Visual Studio.NET, Visio 2003, Project 2003, The Management Scientist 5, Arena 7.0, PHStat 2.0, and DreamWeaver MX 2004. The software licenses and media are acquired and maintained by the College Technology Manager and are paid for out of the department budget and grants.

**Student Access**
Students of the Raj Soin College of Business have access to two computer labs open 24 hours a day, seven days a week located within Rike Hall to complete student projects. Combined there are 38 PC workstation computers all of which have internet access, access to the campus mainframe computer, FTP software, Novell network access, and access to the business software applications being used in the courses taught within the business college. There is also an ISOM department computer lab consisting of 8 PC workstations used exclusively by MIS 495 students to complete their class projects. These workstations have internet access, access to the campus mainframe computer, FTP software, Novell network access, and software development tools needed for the MIS 495 projects.
The college is equipped with two wireless access points which provides wireless network connectivity to students in the college’s lounge and study areas. Through the wireless network students can access the internet and any web-based applications and services such as email, Web CT, Course Studio, the library course reserves, and student Novell file storage space. All campus dorm rooms have direct network access and require only an Ethernet network card and a WSU Campus Network Account to gain access to the Internet. Additionally, a bank of 50 modems is available for use by off-campus students for dial-up access to the internet.

III. Program Effectiveness (NCA Criterion 3 and Criterion 4)

- achievement of student learning outcomes (Please summarize program assessment findings for past five years and subsequent improvements to program) (3A)

<table>
<thead>
<tr>
<th>Objective</th>
<th>How Measured</th>
<th>When Measured</th>
<th>Improvements Identified</th>
<th>Improvements Implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deploy information technology to support organizations</td>
<td>Alumni survey, Employer survey, Advisory Board Discussions</td>
<td>Annually, Twice/year</td>
<td>More hands-on in classes, Content areas added to development courses</td>
<td>Began in selected classes fall 2003, added labs in fall 2004, increased in 2005 and 2006</td>
</tr>
<tr>
<td>Understand, perform, and manage the process of information systems development.</td>
<td>Alumni survey, Employer survey, Advisory Board Discussions</td>
<td>Annually, Twice/year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare individuals for entry-level positions in information technology or in a graduate school program.</td>
<td>Alumni survey, graduating senior survey, Advisory Board Discussions;</td>
<td>Annually, quarterly</td>
<td>Increase internships, Need to enhance career service activities</td>
<td>Enlisted help of ISOM Corporate Advisory Board, Improved communication with students of opportunities; Established Digital Mixer in 2007 in conjunction with the Greater Dayton IT Alliance, Dayton Area Chamber of Commerce and i-Zone</td>
</tr>
<tr>
<td>Prepare individuals for a process of lifelong learning.</td>
<td>Alumni survey,</td>
<td>Fall 2004, Spring 2005, Fall 2005</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td>Learning Outcome</td>
<td>How Measured</td>
<td>When Measured</td>
<td>Improvements Identified</td>
<td>Improvements Implemented</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Understanding of Role of IS</td>
<td>Examinations</td>
<td>Quarterly</td>
<td>Require the Intro to MIS course</td>
<td>Fall quarter 2003</td>
</tr>
<tr>
<td>Project Management</td>
<td>Examinations and assignments</td>
<td>Quarterly</td>
<td>Integrated project management with senior capstone project course</td>
<td>Fall quarter 2003</td>
</tr>
<tr>
<td>Teamwork</td>
<td>Instructor, student peer evaluations, client feedback in capstone course</td>
<td>Quarterly</td>
<td>Work more formally with RSCOB’s Small Business Development Center (SBDC) on project reporting and providing client feedback to students</td>
<td>SBDC reviews reports</td>
</tr>
<tr>
<td>Programming (application development)</td>
<td>Student feedback, tests and assignments, Board of Advisors</td>
<td>2003-2004</td>
<td>Need better coordination between CS and MIS; need earlier introduction to object concepts</td>
<td>Phased in Java language in CS 208, CS 209 and MIS 215; better integration of programming concepts throughout sequence; added credit hour to data structures class to allow more practice assignments and labs</td>
</tr>
<tr>
<td>Systems Development</td>
<td>Examinations, senior project reports</td>
<td>Quarterly</td>
<td>Provide more experience to students with feedback</td>
<td>Increased coverage from 6 to 8 credit hours in 2003; added formal client feedback in 2005 for student projects</td>
</tr>
<tr>
<td>Networking and Telecommunications</td>
<td>Examinations</td>
<td>Quarterly</td>
<td>Course need to be more hands-on and updated</td>
<td>Added simulated network configuration lessons</td>
</tr>
<tr>
<td>Database Design</td>
<td>Exams and assignments</td>
<td>Quarterly</td>
<td>Course needs to be more hands-on</td>
<td>Added labs and more SQL assignments in 2005</td>
</tr>
</tbody>
</table>

- student retention rate (3A)

The ISOM department does not collect data on retention of majors.

- number of graduates annually (3A)

<table>
<thead>
<tr>
<th>MIS Graduates</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS Graduates</td>
<td>100</td>
<td>110</td>
<td>117</td>
<td>155</td>
<td>73</td>
<td>74</td>
<td>57</td>
</tr>
</tbody>
</table>

- placement of graduates (e.g., employment, graduate study) (3A)

As described elsewhere in this report, we have made significant improvements in identifying employment opportunities for our students and graduates. We work on internships, notifying
our students, and bringing employers on campus. In addition to the two Engineering, Computer Science, and MIS job fairs sponsored by Career Services each year, the Digital Mixer is targeting specifically for information systems professionals to meet our students.

The department has been working to obtain better information on alumni, including employment information. In the past, the only source of such information was the university alumni relations and university advancement offices, and up until recently, that information was sparse and not very up-to-date. The office of university advancement has been working on improving the database, and the department is starting to refine its relevant information from that database. We have surveyed the alumni from 2001 to 2004 and their employment information is included as Appendix II. However, the response rates are fairly low. In 2005, the alumni survey was mailed to 86 graduates in 2001. We received 11 responses (12.8% response rate). We mailed 136 surveys to 2003 graduates and received 23 responses (16.9% response rate). In 2006, the alumni survey was mailed to 134 graduates in 2002. We received 5 responses (3.73% response rate). We mailed 107 surveys to 2004 graduates and received 11 responses (10.28% response rate). We are currently surveying the 2005 alumni.

- **teaching effectiveness (3B, 3D)**

The university values teaching highly and requires student evaluation of faculty teaching. Through the Center for Teaching and Learning (CTL), the university offers many opportunities for improving teaching through seminars and workshops, and these are highly encouraged and supported in the department.

There are student evaluations of the instructors that are used by the department chair in the annual evaluation. These offer strong feedback on the quality of instruction and student comments also provide feedback on the course delivery. Graduating seniors complete exit surveys and each team in the capstone course, MIS 495, meets with the department chair. The department chair and selected faculty meet regularly with the ISOM Student Advisory Board to address student concerns and receive suggestions for improvement.

- **faculty productivity (e.g., publications, grants) (4A)**

Vitae for MIS faculty are attached as Appendix III. Faculty publish in refereed journals, chapters in books and encyclopedias, and refereed presentations. Since 2000, faculty have published in *Communications of the ACM, Information and Management, IEEE Transactions on Professional Communication, Journal of Database Management, Information Technology and Management, Small Group Research, Journal of Information Technology* and *Management Science.*

Faculty regularly give presentations at the two national conferences sponsored annually by the Association of Information systems: AMCIS (America’s Conference on Information Systems), and ICIS (International Conference on Information Systems). Faculty also serve as reviewers for the conferences and for journals.
• interrelations of program’s teaching, research, service activities (3A-D, 4A-C, 5A-C)

The ISOM department has clear goals and objectives for student learning outcomes and these are expressed in its course descriptions and in the MIS Assessment Plan. In addition, the ISOM department bylaws emphasize the importance of all three of the pillars of the profession: teaching, research and service. The faculty members believe that both research and service keeps them at the cutting edge of their discipline which, in turn, causes continuous improvement in teaching and in service to the business community.

The management information systems department faculty believe that professional service, both academic and trade, is important for keeping up in the discipline and in their specialty areas. At least two or more faculty members regularly attend the two national meetings in the information systems profession: AMCIS (America’s Conference on Information Systems) and ICIS (International Conference on Information Systems). One faculty member regularly participates in IRMA, the Information Resources Management Association, and attends the national conference. Faculty have also been active in DSI, the Decision Sciences Institute. Faculty regularly review papers for management information systems conferences and participate in conference sessions as panelists, chairs, or discussants.

The department has faculty members participating in the Greater Dayton IT Alliance and faculty serve on their Scholarship Committee and Training Advisory Committee. The faculty regularly submit articles for Technology First Dayton, the monthly newspaper of (GDITA).

• integration of technology into curriculum and instruction (3C)

All MIS professors utilize email for help in addition to office hours. Most of the sections utilize either WebCT or Course Studio for web support. Course Studio is available to all students through the university portal, Wings. Course Studio is:

• A suite of services that enables instructors and students in a class to electronically communicate
• A quick way to deliver information to students via e-mail, message board, announcements or chat room
• A simple means of posting a course syllabus, notes, photos, links, and/or news online
• A system that provides an automatically populated email list updated nightly as students enroll or withdraw from a class.

For example, in MIS 215 and MIS 305, WebCT is used for the following:

• pre-class reading quizzes on material to be covered in class
• surveys (e.g., pre- and post-class knowledge, desire for out-of-class help sessions)
• all midterms and final exams completely online
• up-to-date posting of scores and grades
• homework and project assignments submitted via the "drop box" in electronic format
• teaching assistant has access to submitted assignments for grading help, E-mail for out-of-class questions (both individual and group), announcements, etc.
• posting of lecture slides, homework and test answer keys, sample code, etc.
• chat room to implement virtual office hours

• description of how program ensures that it is always current (4C)

It is critically important for a program in management information systems to remain current. There are a number of ways that we work to do this.

For the curriculum, we consult curriculum guidelines and standards including those published by the Computing Accreditation Commission of ABET and by the Association of Information Systems. We work with the Corporate Board of Advisors, both formally and informally, to get feedback on our curriculum and to determine the needs of local employers. For example, we are currently meeting with the CSC team to determine the skill sets that will be needed for ECSS, a multi-million dollar project from 2007-2013, that will employ hundreds of local IT professionals.

Curriculum is updated through content and software updates within existing courses. For example, based on student requests, employer feedback, working with the Computer Science Department, and feedback from the department Board of Advisors, we started using Java in the first programming course, CS 208, in the winter of 2004. In the fall of 2004, separate sections of MIS 215, Business Data Structures, were taught, using C++ or Java to accommodate students in transition. Since winter 2005, Java is used in all sections of the computer programming sequence.

We can also offer special topic courses as electives for our students. We have offered classes in Information Assurance. We have been working with our partner, the RFID Solutions Center of Alien Technology. We will offer a special topics class on RFID during spring quarter, 2007.

Faculty also work to learn cutting edge technology. Two faculty are in the process of becoming certified in RFID. Three faculty recently attended ITIL Fundamentals and became certified in the fundamentals of Service Management. ITIL is the IT Infrastructure Library and is adopted by a number of large corporations including Mead Westvaco and LexisNexis.

• “comparative advantage” (e.g., distinctiveness in terms of students served, differentiation from programs offered at other regional institutions, strengths attributable to collaborative/interdisciplinary nature of program, etc.)

The Bachelor of Science in Business with an MIS major is the only business information systems program in Ohio accredited by the Computing Accreditation Commission (CAC) of ABET.

IV. Program Needs/Areas in Need of Improvement
Summarize the program needs (e.g., personnel, facilities, equipment) identified in this program review and the areas in need of improvement.

The department has made significant improvements in the last two years and more are scheduled. We were allocated an additional faculty position for the Master of Information
Systems planned for a fall, 2007 start. We were fortunate to hire two new faculty who began fall, 2006.

We currently don’t have a teaching lab in Rike Hall which houses the Raj Soin College of Business. The feedback from our students and alumni is that they want more hands-on experience in the classes. We extensively utilize the two teaching labs in the University Library building but a teaching lab in Rike Hall will be more convenient for students and faculty. The Rike Hall renovation which begins spring, 2007, includes a 39 station teaching lab. It will be scheduled as a classroom starting fall quarter, 2007 and will also be available as an open lab when not in use. This will be a significant improvement to our facilities.

We also obtained space, first in the basement and then relocated to the second floor of Rike Hall, for an RFID lab. This lab is used for research by MIS faculty but also will be used as part of the first RFID class to be taught spring, 2007.

One technology need that we have not been able to meet is to have a small dedicated lab for the networking class. Student and alumni feedback have consistently requested dedicated space for a lab to set up and take down networks. Network configuration and maintenance skills are best taught hands-on.

The decline in the job market for information systems graduates and professionals (1999-2000), caused by a combination of factors including the dotcom bust, the recession, and outsourcing, negatively impacted our enrollment. This is a national trend and increasing MIS majors is the highest priority of the Association of Information Systems. Universities nationally are sharing their strategies for improvement of enrollment. We have focused on increasing our outreach to prospective students and on working with the ISOM Student Advisory Board. We address high school visitors and classes, Business Horizons classes, etc. We think that “word of mouth” on job opportunities is key to this strategy. Events such as the Digital Mixer demonstrate the opportunities available to information systems professionals. When Deloitte visited spring, 2006, the Guardian did a front page article on the ECSS projects and job opportunities in information systems. We are encouraged that in 2005 and 2006, the numbers of pre-MIS and university college MIS students increased.

V. Proposed Improvement Action Plan
Summarize the actions that will be taken in response to the findings of this program assessment. Provide a timeline that indicates how these changes will be implemented and assessed over the next seven years.

We are continuing to offer students opportunities for electives in leading areas of information systems. Spring, 2007 will be the first class in RFID. We are in the process of developing a series of courses in RFID and are assessing student demand for this curriculum.

We are obtaining an educational license for Microsoft Dynamics. This is Microsoft’s ERP package (formerly Great Plains). We are developing a special topics class in ERP with the goal of offering it spring, 2008.

The department has three new research centers that will offer opportunities for faculty research and content modules for curriculum. These are the:
EDAptive Center for Business Performance Management (Drs. Sethi and Duffy)
RFID Application Center and RSCB partnership with RFID Solutions Center of Alien Technology (Dr. Sengupta)
Data Intensive Supply Chain (Dr. Sethi)

Our Assessment Plan for the MIS program is attached in Appendix IV. We have improved the plan to better define the assessment cycle for program objectives and learning outcomes and the use of both indirect and direct measures. We will continue our quarterly and annual assessment reports. After completing the Interim Report for the Computing Accreditation Commission of ABET, we will review the new standards and assessment procedures. Implementation will begin in 2008. If our Interim Report is accepted, then our next general review for ABET will be 2011-2012.

We are continuing to look for ways to implement a network lab.
## Report Findings

### A. Objectives and Assessment

<table>
<thead>
<tr>
<th>Concern regarding Standard I-3:</th>
<th>Actions reported in Feb. 10, 2006 response</th>
<th>Actions since Feb. 10, 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Mechanisms to periodically review the program are not well-institutionalized</td>
<td>1. Direct measures associated with each learning outcome are now embedded in MIS courses. Appendix III of this report shows these questions and the course in which they are embedded.</td>
<td>1. Direct measures associated with each learning outcome continue to be embedded in MIS courses. Appendix IV shows these questions and the course in which they are embedded.</td>
</tr>
<tr>
<td>(2) Assessment measures are limited to self-reported “opinion” rather than direct measurement of student knowledge and/or skills</td>
<td>2. The Appendix also shows the manner in which the results are used to identify improvements.</td>
<td>2. The Appendix also shows the manner in which the results continue to be used to identify improvements.</td>
</tr>
<tr>
<td>Concern regarding Standard I-4:</td>
<td>3. The use of consistent forms across all objectives and for each course provides records of the review process.</td>
<td>3. The use of consistent forms across all objectives and for each course continue to record the review process.</td>
</tr>
<tr>
<td>(1) There is no real process in place to utilize assessment results to help identify and implement program improvements</td>
<td>4. These actions are already implemented in our courses and where data is available for the Fall, 2005, term, it is reported and analyzed for improvements.</td>
<td>4. These actions are already implemented in our courses and data for Fall, 2005, Winter, 2005, and Spring, 2006 terms is reported and analyzed for improvements.</td>
</tr>
<tr>
<td>Concern regarding Standard I-5:</td>
<td>5. These results will be discussed by the MIS Curriculum Committee at the end of each quarter.</td>
<td>5. These results continue to be discussed by the MIS Curriculum Committee at the end of each quarter.</td>
</tr>
<tr>
<td>(1) Documentation of the review process and actions taken is marginal, bordering on inadequate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### B. Students

| None | None |

### C. Faculty

| None | None |

### D. Curriculum

| Concern regarding Standard IV-15: Coverage of global, economic, social and ethical implications of computing is too limited | Effective Spring, 2006, quarter, the MIS faculty have adopted the textbook, A Gift of Fire, Sara Baasse, Prentice Hall, second edition, 2003 and the contents of the book have been integrated into each of our MIS core | Effective Spring, 2006, quarter, the MIS faculty have adopted the textbook, A Gift of Fire, Sara Baasse, Prentice Hall, second edition, 2003 and the contents of the book have been integrated |

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**MIS major in B.S. in Business**

**Information Systems and Operations Department**

**Raj Soin College of Business**

**Wright State University**
<table>
<thead>
<tr>
<th>Section</th>
<th>Concern</th>
<th>Details</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. Technology Infrastructure</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>F. Institutional Support and Financial Resources</td>
<td>Concern regarding Standard VI-2: Sufficiency of support for faculty travel</td>
<td>Department funds are available annually to all MIS faculty for travel to national meetings. All faculty have now submitted abstracts/papers to the 2006 AMCIS conference.</td>
<td>Department funds are available annually to all MIS faculty for travel to national meetings.</td>
</tr>
<tr>
<td>G. Program Delivery</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>H. Institutional Facilities</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
APPENDIX II
MIS Alumni Survey Results

2004 Graduates

Title: Section Manager
Employer/Graduate School: Northrop Grumman Corp.
Description: Consult in field of Info Mgt, Knowledge Mgt, and Org. Development

Title: Software Analyst
Employer/Graduate School: Business Labs LLC
Description: Network configuration, programming, Microsoft Business Solutions Provider.

Title: Configuration Management Assistant
Employer/Graduate School: Ball Aerospace & Technologies Corp.
Description: Identify items for configuration control, control changes to those items, prepare reports documenting their status and conduct audits.

Title: USGTF Level III Golf Teaching Professional
Employer/Graduate School: Self-employed
Description: Golf instruction

Title: Help Desk II/Network Support
Employer/Graduate School: Hobart
Description: Manage company computers, assist end users, manage software installations, tech support.

Title: Associate Director, Management Services segment
Employer/Graduate School: Peerless Technologies Corp./WSU MBA program
Description: 

Title: Systems Analyst
Employer/Graduate School: Haverstick Government Solutions
Description: Functional-technical contracting liason

Title: Programmer
Employer/Graduate School: Cedarville University
Description: Develop systems to solve business problems

Title: Application Security Admin/Sr. Programmer
Employer/Graduate School: Accenture Technology Solutions
Description: Application security administration for SAP, manugistics, harvest, desam, etc. for defense logistics agency

Title: Management Analyst
Employer/Graduate School: Bearing Point, Inc.
Description: QA tester – verify and validate data, write SQL queries and test scripts, log defects and retest code

Title: Owner
Employer/Graduate School: T.A.M. Communications
Description: Independent producer of web, cd, and dvd content; programming for web and software
2003 Graduate Responses

Title: Functional Associate II
Employer/Graduate School: Assurant Solutions

Title: Graduate Assistant Librarian-Grainger Engineering Library
Employer/Graduate School: University of Illinois-Graduate School of Library and Information Science
Description: Reference Service, Library Instruction, Development of Search tools, Database Maintenance

Title: Network Engineer
Employer/Graduate School: Tech Wizards
Description: Provide IT services to small local business without cannot afford to maintain an IT department

Title: IT Manager
Employer/Graduate School: The Citizens National Bank of SW Ohio
Description: Network Administration, operations

Title: Indirect Channel Manager-Dayton
Employer/Graduate School: Cincinnati Bell
Description: Manage all business aspects of the indirect sales channel for Cincinnati Bell in Dayton

Title: Business Analyst
Employer/Graduate School: HCL Technologies
Description: Financial Management, Project Management

Title: Staff Accountant
Employer/Graduate School: Clark, Schaefer, Hackett, & Co.
Description: Accounting-Audit & Tax

Title: Support Specialist
Employer/Graduate School: Hewlett Packard
Description: Support and configure CRM application for clients

Title: Network Systems Analyst
Employer/Graduate School: Kettering Medical Center Network
Description: Support 20 hospital applications, do upgrades, support users, troubleshoot

Title: Software Designer
Employer/Graduate School: IM Systems Group/ WSU Raj Soin College of Business
Description: Design/implement websites and web applications using NET framework, SQL, etc.

Title: System Developer/Programmer
Employer/Graduate School: SMS Group
Description: Programming and System Development
Title: Network Administrator
Employer/ Graduate School: Smith-Feike-Minton, Inc.
Description: Manage the servers, workstations, and phone system

Title: Technical Solutions Engineer
Employer/ Graduate School: NCR
Description: I manage all of the NCR properties in US in regards to voice/ data for when they move/ open/ close

Title: Telecommunications Technician
Employer/ Graduate School: CACI Inc., Federal
Description: Systems/ Network Administration, VOID Phone System Management, Purchasing

Title: Self-employed
Employer/ Graduate School: Self-employed
Description: Remodeling, New Home Construction

Title: Computer Applications Analyst
Employer/ Graduate School: Goodyear Tire & Rubber
Description: PC Software/ hardware troubleshooting, server upkeep, Network administration, training in 400 (RPG) programming

Title: Quality Monitoring-VSD
Employer/ Graduate School: Victoria’s Secret Direct
Description: Monitor Sales Calls

Title: Associate Network Analyst
Employer/ Graduate School: Miami Valley Hospital
Description: Build, configure, install computers, provide technical support

Title: Vault Teller
Employer/ Graduate School: KEY
Description: Process Incoming Deposit

Title: Software Engineer
Employer/ Graduate School: Standard Register/ Wright State
Description: Code/test/debug/write macros/graduate school MBA

Title: PC Support Technician
Employer/ Graduate School: Coldwell Banker Heritage Realtor
Description: PC Support, Web Design, Phone Support, PC Repair, Phone Systems

Title: Sales Rep
Employer/ Graduate School: Moyer’s Data Systems
Description: Sell NCR POS equipment (software & hardware)
2002 Alumni Information

Title: Apprentice Programmer Analyst  
Employer/Graduate School: N/A  
Description: Support the systems used by my employer

Title: Research Specialist  
Employer/Graduate School: ClearChannel – Critical Mass Media  
Description: Daily report processing, compile scripts, generate phone files, special report processing.

Title: Systems Administrator  
Employer/Graduate School: Hormel Foods Corporation  
Description: I manage/maintain the corporation’s 350+ Windows/Intel based servers, in up to 60+ locations.

Title: Senior Image Administrator  
Employer/Graduate School: National City Mortgage  
Description: User support for issues with the imaging system as well as lead and execute projects for upgrades/enhancements to the system

Title: Information Technology Specialist  
Employer/Graduate School: Department of Defense – United States Air Force  
Description: Program management; acquire information technology

Title: Senior Analyst  
Employer/Graduate School: Cedarville University  
Description: Write programs, queries, build reports for the administrative system on campus
2001 Alumni Responses

Title: Technical Solutions Engineer  
**Employer/ Graduate School:** NCR/ WSU  
**Description:** Networking for NCR Infrastructure

Title: Student  
**Employer/ Graduate School:** Southern Theological Seminary  
**Description:** Student

Title: IT Auditor  
**Employer/ Graduate School:** Ernst’s Young LLP  
**Description:**

Title: Network Analyst  
**Employer/ Graduate School:** Nova Technology Solutions  
**Description:** Project management, network implementation and consulting

Title: WSU Auditor/ Student  
**Employer/ Graduate School:** WSU  
**Description:** Student Audition

Title: Web Developer  
**Employer/ Graduate School:** Sinclair Community College  
**Description:** Web Development

Title: First Lieutenant (US Army)  
**Employer/ Graduate School:** US Army  
**Description:** Defend the country

Title: Software Engineer  
**Employer/ Graduate School:** Lockheed Martin  
**Description:** Project Manager for software development project

Title: Web Developer  
**Employer/ Graduate School:** Design Forum, LLC, Dayton Ohio  
**Description:** Design, development, debug and deploy web-based business applications that facilitate day-to-day operations

Title:  
**Employer/ Graduate School:** Shelby County Public Schools  
**Description:** Substitute School Teacher

Title: Project Control Specialist  
**Employer/ Graduate School:** DRA  
**Description:** project management