

(name and title)

# Program Review Self-Study Template

| Callana, Business   |                                |                              |
|---|--------------------------------|------------------------------|
| College: Business   |                                |                              |
| Date of last review   | 2013                           |                              |
| Date of last accreditation report (if relevant)                 | September 2013                 |                              |
| List all degrees described in this report (add li               | nes as necessary)              |                              |
| Degree: Bachelor - Finance                                      |                                | CIP* code: 52.0801           |
| Degree: Bachelor – Management Information                       | Systems                        | CIP code: 52.1201            |
| *To look up, go to: Classification of Instructional Programs We | ebsite, http://nces.ed.gov/ipe | ds/cipcode/Default.aspx?y=55 |
| Faculty of the academic unit (add lines as nec                  | essary)                        |                              |
| Name  |                                | Sign                         |
| Sue Abdinnour   |                                | $\sum_{i}$                   |
| Mehmet Barut  |                                | M                            |
| Rodney Boehme   |                                | 100                          |
|   |                                | 7                            |
| Timothy Craft   |                                |                              |
| Steve Helm  | <u> </u>                       |                              |
| Stan Longhofer  |                                |                              |
|   |                                | ب                            |
| Anthony May   | 2400-400-05-0-27-03-0          |                              |
| Achita Muthitacharoen   |                                |                              |
| Khawaja Saeed   |                                |                              |
| Larry Spurgeon  |                                | Tra                          |
|   |                                | . )                          |
| Semih Tartaroglu  | 1,000,000,000,000              |                              |
| Peggy Ward  |                                | 9                            |
| David Xu  |                                | D                            |

In yellow highlighted areas, data will be provided

- 1. Departmental purpose and relationship to the University mission (refer to instructions in the WSU Program Review document for more information on completing this section).
  - a. University Mission:

The mission of Wichita State University is to be an essential educational, cultural, and economic driver for Kansas and the greater public good.

## b. Program Mission

In line with the Mission of the Barton School of Business, the Management Information Systems (MIS) Program advances the knowledge and practice of Management Information Systems, reaches out to constituents, and prepares our students to compete in a global entrepreneurial marketplace.

c. The role of the program(s) and relationship to the University mission: Explain in 1-2 concise paragraphs

The (MIS) program is designed to combine knowledge of business processes with practical hands-on knowledge for building and maintaining information systems within businesses and organizations. The MIS program and its faculty complement the University and Barton School missions. Student learning is a primary goal. In order to execute on that goal, high-quality curriculum is developed and delivered by the faculty to address the complex and changing nature of information technology utilized in today's businesses. The curriculum embraces ways in which new technology can be used to innovate and grow local businesses that reach the global market, and also connect people and institutions. This education is essential in providing well-trained graduates for employers in our region and beyond, thus serving as an economic driver in line with the mission of WSU. Our program is focused on being a crucial component in innovation and the development of what is coming to be known as the 'Silicon Prairie."

Our faculty are research-active and focused on continuous improvement in their research and instruction. In addition to the good number of publications, the MIS faculty is extremely successful in publishing in the top five journals in their field. This is extremely impressive given the small number of tenure-eligible faculty (3). We directly engage local MIS professionals in assessing the effectiveness and relevance of our curriculum. Our MIS advisory Board, established in 2009, is a critical link in this process for both our faculty and students. In addition to curriculum development and program revisions, they are also a source of research ideas and industry networking. The board is comprised of IT managers and executives from local companies and organizations, as well as our MIS faculty. Board members also provide crucial information regarding future industry needs in IT skills and input regarding the quality of our graduates. Our goal is to connect with, and add value to, our stakeholders who are also potential employers for our graduates. In that vein, our students are engaged in a large number of Co-Operative Education courses and paid internships. This is consistent with Wichita State University's vision of giving every student the opportunity for an applied learning experience. Over 40% of our students report a Co-op in data from the last two years of exit surveys and over 30% indicate an internship as part of their experience at WSU. This speaks volumes to the desirability of our majors in local businesses and the economic impact of our program within the community. MIS faculty have raised funds to sponsor a Summer Mobile Application Camp over the

past few years enhancing local educational opportunities for high school students and serving as a means to attract future WSU students. The funding comes from our local corporate partners LogMeIn, Meritrust, and Cybertron. In this hands-on learning environment, students learn how mobile applications are developed, designed and delivered. They even develop their own apps from scratch in this camp. The future for this mission-aligned program is bright.

- - i. If yes, describe in 1-2 concise paragraphs. If no, is there a need to change?

The program mission for MIS remains consistent with the mission of WSU. We are committed to high quality research and being a significant economic driver by providing excellent graduates to the local economy and beyond. This requires that we continuously adapt our curriculum to the dynamic changes in technologies that alter the MIS educational landscape. This results in new courses offered as electives to our students, new software used in our curriculum and innovative approaches to education such as our Mobile App Summer camps that reach out to high school students

e. Provide an overall description of your program(s) including a list of the measurable goals and objectives of the program (s) (both programmatic and learner centered). Have they changed since the last review?

If yes, describe the changes in a concise manner.

As noted previously, the (MIS) program is designed to combine knowledge of business processes with practical hands-on knowledge of building and maintaining information systems. The major requires twenty-one credit hours in courses from the following, in addition to completion of Barton School and WSU degree requirements.

## Required Courses for MIS majors (12 credit hours):

- MIS 310 Fundamentals of Bus. Application Dev. (min. grade C+) (3)
- MIS 325 Database Communications and Computer Networks (min. grade C+) (3)
- MIS 600 Database Management Systems (min. grade C+) (3)
- MIS 605 Systems Analysis and Design (3)

## Choose one course (3 credit hours) from the following:

- MIS 610 Dynamic Web Programming (3)
- MIS 615 Advanced Business Application Development (3)

## Choose one course (3 credit hours) from the following:

- MIS 696 Management of the Information Systems Function
- DS 655 Project Management

## Major Electives - choose 2 courses (6 credit hours) from the following:

- MIS 610 Dynamic Web Programming (3)
- MIS 611 Topics in Computer Networking (3)
- MIS 615 Advanced Business Application Development (3)
- MIS 690 Seminar in Selected Topics (3)
- MIS 750 Business Intelligence and Analytics (3)
- DS 660 Enterprise Systems (3)
- DS 665 Supply Chain Management (3)
- DS 675 Spreadsheet Modeling for Decision Making (3)

The MIS faculty developed a plan to continuously improve our students' learning outcomes through course assessments. The plan has four general objectives. Students will be able to:

- Demonstrate knowledge of basic and advanced MIS concepts and terminologies.
- 2. Intelligently discuss and use selected system development tools, techniques and methodologies.
- 3. Apply selected technologies to different business functions.
- 4. Intelligently discuss the management of information technology and systems in an organization.

In order to assess these learning outcomes, students are asked to complete exit questions at the completion of each MIS course. The questions are instruments to test whether they succeed in each objective. Depending upon the nature of course material, each MIS course incorporates different objectives. For instance, programming courses focus more on the first two objectives. We compile the results of exit questions on regular basis and analyze them. This process has led us to make changes to the program accordingly, e.g., changing textbooks, realigning lecture materials and adding or adjusting content in each course. We also assess the learning outcomes in MIS 395, the required MIS course for the undergraduate business major.

2. Describe the quality of the program as assessed by the strengths, productivity, and qualifications of the faculty in terms of SCH, majors, graduates, and scholarly/creative activity (refer to instructions in the WSU Program Review document for more information on completing this section).

MIS

| Scholarly<br>Productivit<br>y | Numb<br>Journ<br>Articl | al          | Num<br>Prese<br>ns | ber<br>entatio | ı   | ber<br>erence<br>eeding | Perí | orman | ices | Numb<br>Exhib |      | Creati<br>Work |               | No.<br>Boo<br>ks | No.<br>Book<br>Chaps | No. Grants Awarded or Submitte d | \$ Grant<br>Value |
|-------------------------------|-------------------------|-------------|--------------------|----------------|-----|-------------------------|------|-------|------|---------------|------|----------------|---------------|------------------|----------------------|----------------------------------|-------------------|
|                               | Ref                     | Non-<br>Ref | Ref                | Non-<br>Ref    | Ref | Non-<br>Ref             | •    | **    | ***  | Jurie<br>d    | **** | Jurie<br>d     | Non-<br>Jurie |                  | <del>Water Law</del> |                                  |                   |
| Year 1                        | 4                       |             | 2                  |                | 1   | -                       | -    |       |      | -             |      | _              | d             |                  |                      |                                  | T                 |
| Year 2                        | 4                       |             |                    |                | 1   |                         |      |       |      |               |      |                |               |                  | -                    | 2                                | \$10K+            |
| Year 3                        | 3                       |             | 3                  |                | 4   |                         |      |       |      |               |      |                |               |                  |                      |                                  | \$10K             |

 Provide a brief assessment of the quality of the faculty/staff using the data from the table above and tables 1-7 from the Office of Planning Analysis as well as any additional relevant data.
 Programs should comment on details in regard to productivity of the faculty (i.e., some departments may have a few faculty producing the majority of the scholarship), efforts to recruit/retain faculty, departmental succession plans, course evaluation data, etc.

# Provide assessment here:

The FREDS Department and the MIS faculty are committed to excellence in research. All three of our tenured faculty in MIS are targeting their research for the top journals and it is paying off. In the period of evaluation, our faculty have produced eleven refereed publications, two in the number one ranked journal, two in the MIS journal ranked second and two in the number one ranked online IT

journal. They have also published six refereed conference proceedings. Additionally, national print media have written about some of the applied research conducted in the department. The MIS faculty also produce an average of 298 SCH over the 2010 – 2014 vs. 205 at university. This output has risen from 273 to 310 during that period. The non-tenure eligible faculty in the department produce a large number of SCH, rising from 537 to 728 per year over the period of analysis. Increasing SCH and the loss of 0.5 FTE in the faculty have been factors in the growth of these numbers. Strategic addition of faculty resources and computer lab seats to this area would be beneficial to the department and WSU.

As can be seen in the table below, SCH, Program Majors and the number of degrees conferred per year have been growing. The growth in number of degrees is particularly significant, from 17 in 2012 to 28 in 2015, a 65% increase.

|   | Management Information Systems       | 2012  | 2013   | 2014   | 2015 | Average<br>over<br>period | % Change over review period |
|---|--------------------------------------|-------|--------|--------|------|---------------------------|-----------------------------|
|   | Fiscal Year Student<br>Credit Hours* | 9,591 | 10,394 | 10,617 |      | 10,200                    | +11%                        |
|   | SCH per FTE*                         | 272.5 | 298.4  | 309.7  |      | 294                       | +14%                        |
|   | Program Majors                       | 99    | 103    | 100    |      | 101                       | +2%                         |
| a | Degree Production per year           |       | 17     | 31     | 28   | 39%                       | 65%                         |

- 3. Academic Program: Analyze the quality of the program as assessed by its curriculum and impact on students for each program (if more than one). Attach updated program assessment plan (s) as an appendix (refer to instructions in the WSU Program Review document for more information).
  - a. For undergraduate programs, compare ACT scores of the majors with the University as a whole.

The ACT scores for MIS majors during the evaluation period were slightly below the University mean at the beginning of the evaluation period, 21.6 vs. 23.0. ACTs of MIS majors had risen above the overall University mean by the end of the evaluation period, 23.4 vs. 23.1. The increased quality, as measured by ACT results, has been noted anecdotally by faculty regarding classroom performance. But more importantly, this increased quality may be a factor in our high placement rate for majors in MIS.

b. For graduate programs, compare graduate GPAs of the majors with University graduate GPAs.

This section is not relevant in that MIS is an undergraduate major.

c. Identify the principal learning outcomes (i.e., what skills does your Program expect students to graduate with). Provide aggregate data on how students are meeting those outcomes in the table below. Data should relate to the goals and objectives of the program as listed in 1e. Provide an analysis and evaluation of the data by learner outcome with proposed actions based on the results.

In the following table provide program level information. You may add an appendix to provide more explanation/details. Definitions:

<u>Learning Outcomes</u>: Learning outcomes are statements that describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire in their matriculation through the program (e.g., graduates will demonstrate advanced writing ability).

Assessment Tool: One or more tools to identify, collect, and prepare data to evaluate the achievement of learning outcomes (e.g., a writing project evaluated by a rubric). Criterion/Target: Percentage of program students expected to achieve the desired outcome for demonstrating program effectiveness (e.g., 90% of the students will demonstrate satisfactory performance on a writing project).

Result: Actual achievement on each learning outcome measurement (e.g., 95%).

<u>Analysis</u>: Determines the extent to which learning outcomes are being achieved and leads to decisions and actions to improve the program. The analysis and evaluation should align with specific learning outcome and consider whether the measurement and/or criteria/target remain a valid indicator of the learning outcome as well as whether the learning outcomes need to be revised.

# MIS Program Assessment Results, Interpretations, and Future Directions

## **Major and Minor**

Since 2007, the MIS program at Wichita State University has implemented a program assessment to indicate opportunity for continuously improving its curriculum. The faculty developed a plan to continuously improve our students' learning outcomes through course assessments. The assessment was designed to evaluate student-centered goals presented below.

#### Students will be able to:

- 1. Demonstrate knowledge of basic and advanced MIS concepts and terminologies.
- 2. Intelligently discuss and use selected system development tools, techniques and methodologies.
- 3. Apply selected technologies to different business functions.
- 4. Intelligently discuss the management of information technology and systems in an organization.

Process: In order to assess these learning outcomes, students are asked to complete exit questions at the completion of each MIS course. The questions are instruments to test whether they succeed in the desired learning outcome. Based upon their score, they will be classified into a groups designated as exemplary, acceptable, or unacceptable. Each MIS course incorporates different objectives, depending upon the nature of course material. For instance, programming courses focus more on the first two items. We compile the results of the exit questions on regular basis and analyze them. This has led us

to make changes to the program accordingly, e.g., changing textbooks, realigning lecture materials and adding or adjusting content in each course. We also assess the learning outcomes in MIS 395, the required MIS course for the undergraduate business major.

Program Objective: Our goal is to achieve a combined score of 80% from the exemplary and acceptable groupings. This assessment showed that, for the most part, we have achieved our goal as evident in the graphs below. From the results, we found a steady improvement in all areas.

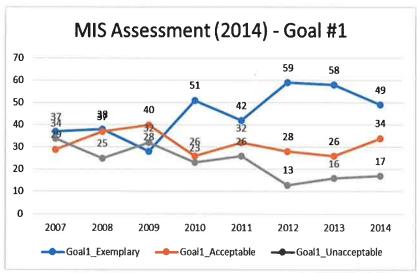


Figure 1: Goal 1 Results (% of students)
(MIS Knowledge)

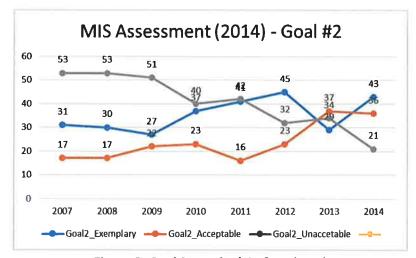


Figure 2: Goal 2 Results (% of students) (Tools, Techniques and Methodologies)

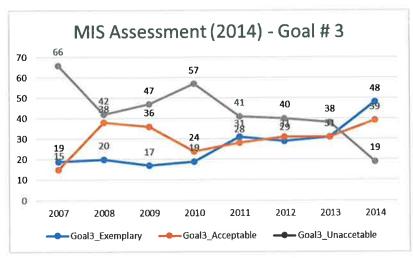


Figure 3: Goal 3 Results (% of students)
(Technology application)

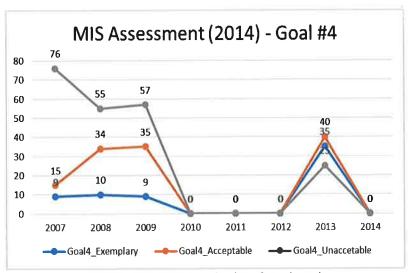


Figure 4: Goal 4 Results (% of students) (Intelligent discussion of IT and Systems)

Note: No class for MIS major in the 2014 academic year included this goal. Goal #4 is measured mostly for MIS 395, a class for non-MIS major.

Since the last report of (2014 fall semester), we have achieved our objective of having a combined score of 80% from the group of exemplary and acceptable with the exception of goal #2. Based upon these results, the only area that needs more attention is goal #2. Although it did not meet our desired benchmark, the score is on the rise when compared to the results from the 2013 academic year. It should also be noted that we expanded goal #3 to another course (MIS 325) since fall 2014. Besides our regular evaluation of new textbooks, revising class materials, and involving business community to the curriculum design, we are considering offering new course and inviting business professionals to teach some elective MIS courses to add more practical aspect to the program.

|              | Goal #1 | Goal #2 | Goal#3 | Goal#4 |
|--------------|---------|---------|--------|--------|
| Exceeds      | 103     | 89      | 34     | n/a    |
| Percentage   | 49%     | 42%     | 48%    |        |
| Acceptable   | 73      | 66      | 28     | n/a    |
| Percentage   | 34%     | 31%     | 39%    |        |
| Unacceptable | 35      | 56      | 9      | n/a    |
| Percentage   | 17%     | 27%     | 13%    |        |
| Total        | 128     | 128     | 36     | n/a    |

Table 1: 2014 Academic Year Assessment Results (MIS Majors)

#### Assessment of MIS 395 Core Course including Non MIS Majors (MIS 395)

All business majors at the Barton School of Business, except for the MIS major, are required to perform an exit quiz at the end of semester. The questions used to assess each goal were developed for a broader business perspective and capture 3 of the 4 programmatic goals. They are:

#### Students will be able to:

- 1. Demonstrate knowledge of basic and advanced MIS concepts and terminologies.
- 2. (Please note: Goal #2 is more specific to MIS major).
- 3. Apply selected technologies to different business functions.
- 4. Intelligently discuss the management of information technology and systems in an organization.

According to their scores, they will be classified into a group of exemplary, acceptable, or unacceptable. One of our primary objectives is to achieve a combined score of 80% from the group of exemplary and acceptable. Below are the assessment results from 2007 academic year to 2014 academic year:

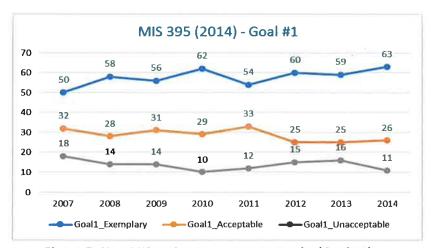


Figure 5: Non MIS major assessement results (Goal #1) (Knowledge)

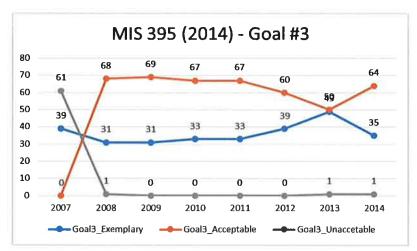


Figure 6: Non MIS major assessement results (Goal #3)
(Technology application)

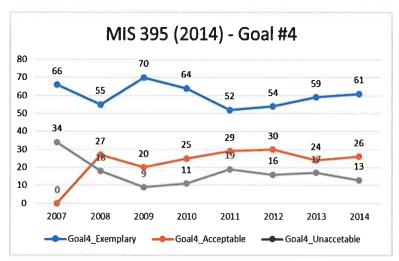


Figure 7: Non MIS major assessement results (Goal #4) (Intelligent discussion of IT and Systems)

The results show a continuous improvement over the years. At least for the past 5 years, we have met the objective of having at least 80% of combined scores from the group of exemplary and acceptable. It is worth noting that we are close to 90% in goal #1 and #4 and over 90% in goal #3. We have also been able to keep the ratio of students in the unacceptable group close to 0% while increasing those in exemplary group (this is similar to previous findings in 2013). One can also observe an upward trend for both exemplary and acceptable groups and a downward trend for the unacceptable group.

Data for 2014 is provided below.

|              | Goal #1 | Goal #3 | Goal #4 |
|--------------|---------|---------|---------|
| Exceeds      | 184     | 104     | 178     |
| Percent      | 63%     | 35%     | 61%     |
| Acceptable   | 77      | 187     | 77      |
| Percent      | 26%     | 64%     | 26%     |
| Unacceptable | 32      | 2       | 38      |
| Percent      | 11%     | 1%      | 13%     |
| Total        | 158     | 158     | 158     |

Table 2: 2014 Assessment Results (Non MIS Majors)

Summary: The MIS assessment results are shared among the MIS faculty at least once a year. At this point, the MIS faculty found that goal #3 deserves special attention. Although its combined score meets the benchmark of 80%, the result showed the downward trend of the exemplary group (Please see figure 2). Since we started performing the assessment, we made several changes to the MIS 395 course. Below, please find a summary of changes we made to the courses since 2007.

Table 2: Summary of Improvements/ Changes Made to MIS 395

| Year | Improvements/Changes Made to the Course   |
|------|---|
| 2007 | Textbook was replaced by a less-technical, more-strategic textbook. This is consistent with the current trend in general MIS classes.   |
| 2008 | <ul> <li>A new, semester-long case was integrated into MIS 495. It required students to study the role that information systems played in the development of planes at Boeing and Airbus.</li> <li>MIS 495 was renumbered MIS 395. MIS 495 is no longer considered the capstone of the general business classes. It is now thought of as a core business class that emphasizes the role of information systems and information technology in the business environment.</li> <li>New homework assignments were given. They required students to provide detailed analyses of the role that information systems have played in the current financial crisis.</li> </ul> |
| 2009 | <ul> <li>Adopting new edition of the textbook was adopted for fall semester.</li> <li>A new project was assigned. This homework required students to design a detailed IT/IS solution for a fictional company to help students develop a better working understanding of MIS.</li> </ul>  |
| 2010 | <ul> <li>A new homework assignment was given. Students are required to develop a data-flow diagram. This will assist students in assessing whether the IT department understands information they have provided.</li> <li>The IT/IS Design project was modified to allow students to design a solution for any type of company.</li> </ul>  |
| 2011 | <ul> <li>Adopting a new book.</li> <li>A new homework assignment was given. Students are required to develop an activity diagram. This will assist students in assessing whether the IT department understands information they have provided.</li> </ul>   |
| 2012 | <ul> <li>Adding online sections</li> <li>Adding a topic on gamification</li> <li>Adding two new homework assignments. For the first assignment, students were required to develop a use case diagram so that they can assess whether the IT department understands project information that they have provided. For the second assignment, students used gamification techniques to develop a gamification plan for a company.</li> </ul>   |
| 2013 | <ul> <li>Adopting a new book.</li> <li>Adding a homework that required students to develop a disaster recovery plan.</li> <li>Including the topic of how to use a new tool for website development</li> </ul>   |
| 2014 | Dropping one homework assignment, and lengthened another, more important homework assignment.   |

d. Provide aggregate data on student majors satisfaction (e.g., exit surveys), capstone results, licensing or certification examination results (if applicable), employer surveys or other such data that indicate student satisfaction with the program and whether students are learning the curriculum (for learner outcomes, data should relate to the outcomes of the program as listed in 3c).

Student satisfaction with the MIS program is quite good. The satisfaction scores ranged from 85.0% in year 1, 86.7% in year 2 and 76.9% in year 3 with an average value of 82.9%, higher than the university average over this period of analysis. Exit surveys indicate that students find their academic background in MIS useful in their career; the average for the last three years was 90.4%.

Over the period of analysis, the number of majors grew by 2%, but the number of degrees conferred grew by 65%. This implies a higher level of student satisfaction and improved retention, relative to the growth experienced at the university. The large growth in degrees also is a result of the cyclicality in student enrollment in this discipline.

e. Provide aggregate data on how the goals of the WSU General Education Program and KBOR 2020 Foundation Skills are assessed in undergraduate programs (optional for graduate programs).

| Outcomes:       |  | R      | esults     |
|-----------------|--|--------|------------|
| 0               | and social sciences  | Majors | Non-Majors |
| 0               | Think critically and independently                         |        |            |
| 0               | Write and speak effectively                                |        |            |
| 0               | Employ analytical reasoning and problem solving techniques |        | 1          |
| These are asses | sed at the College Level in the Barton School              |        |            |
|                 |  |        |            |
|                 |  |        |            |

Note: Not all programs evaluate every goal/skill. Programs may choose to use assessment rubrics for this purpose. Sample forms available at: <a href="http://www.aacu.org/value/rubrics/">http://www.aacu.org/value/rubrics/</a>

f. For programs/departments with concurrent enrollment courses (per KBOR policy), provide the assessment of such courses over the last three years (disaggregated by each year) that assures grading standards (e.g., papers, portfolios, quizzes, labs, etc.) course management, instructional delivery, and content meet or exceed those in regular on-campus sections.

Provide information here:

# Not applicable

g. Indicate whether the program is accredited by a specialty accrediting body including the next review date and concerns from the last review.
Provide information here:

The Barton School of Business is accredited by the AACSB, but there is not a separate accreditation for the MIS program.

h. Provide the process the department uses to assure assignment of credit hours (per WSU policy 2.18) to all courses has been reviewed over the last three years.
 Provide information here:

We require that all syllabi include the definition and assignment of credit hour as per university policy. Faculty are notified each semester of the requirements to meet this policy.

i. Provide a brief assessment of the overall quality of the academic program using the data from 3a – 3e and other information you may collect, including outstanding student work (e.g., outstanding scholarship, inductions into honor organizations, publications, special awards, academic scholarships, student recruitment and retention).

#### Provide assessment here:

A major strength of our program is the quality of our students. The increasing ACT scores and their success after graduation are key factors in this conclusion. The high satisfaction rate (over 90%) for our program is also important for our future success, as is the satisfaction of our employers with our graduates. The increased quality may be a factor in the high placement rate for our majors and their increasing starting salaries, now averaging over \$50,000 per year. Another plus is that most of these students are remaining in Kansas or the local area providing a boost to our local employers. Growth in MIS SCH is strong, but the growth in the number of conferred degrees is exceptional. The High Touch Ted Cary Memorial Scholarship is also a big boost to our program. Each year, one of our majors is selected from a rigorous competition for this two-year award of \$10,000 per year. This scholarship has been effective in raising awareness of our program and attracting additional high quality students to the MIS major.

This growth is due, in part, to the high-quality MIS faculty who provide hands-on, application based curriculum that is student centered. A factor in the higher number of conferred degrees is better student retention, some of that is faculty advising and better quality students. The MIS Advisory Board has also been instrumental in helping our program maintain a relevant curriculum in light of tremendous changes within the industry. Two of our MIS Faculty have been awarded the WSU Young Faculty Scholar Award and another received the Mortar Board Educator of the Year Award. Another strength is the ability of our faculty to bring their high quality research results into the classroom in the form of creating Apps or presenting Online Auction and social media research.

Based upon the assessment results, another strength is that the MIS program is generally meeting, or exceeding, its student-centered learning goals, with the exception of Goal #2. However, the results on Goal #2 are getting better. The faculty is also using assessment results to effectively shape curriculum for the major and the business core MIS course.

As mentioned elsewhere, innovation is another strength of our program, as exemplified by the creation and implementation of our Summer Mobile Application Camp. This endeavor enhances local educational opportunities for high school students and serves as a means to attract future WSU students.

- 4. Analyze the student need and employer demand for the program. Complete for each program if appropriate (refer to instructions in the WSU Program Review document for more information on completing this section).
- a. Evaluate tables 11-15 from the Office of Planning Analysis for number of applicants, admits, and enrollments and percent URM students by student level and degrees conferred.

The MIS major has had cyclical swings in enrollment, most likely due to economic conditions. Over the last three years, credit hours applicants, admits and enrollments all increased significantly.

|                       | 2013  | 2015   | 2015   | % Change over review period |
|-----------------------|-------|--------|--------|-----------------------------|
| Student Credit Hours* | 9,591 | 10,394 | 10,617 | 11%                         |
| Applicants            | 29    | 44     | 50     | +72%                        |
| Admitted              | 28    | 37     | 45     | +22%                        |
| Enrolled (census day) | 18    | 18     | 25     | +39%                        |

<sup>\*</sup>Student Credit Hours are the aggregated total of department credit hours, not split out between the two majors, Finance and MIS

As can be seen in the table above, MIS has experienced significant growth in all three aspects, applicants, admissions and enrollments. During this period, the FTE faculty component has decreased by 0.5 FTE. This loss exacerbates the need for additional faculty for a growing successful program. The program has also been successful in enrolling under-represented minorities as majors in the program at a higher level than the university, 19% vs. 15%. The percentage of URM graduating with an MIS undergraduate degree is also higher than that of the university for 2014, 21.4% vs. 14.3%.

b. Utilize the table below to provide data that demonstrates student need and demand for the program.

|        | Averag<br>e Salary | Employ-<br>ment<br>% In state | Employment % in the field | Employmen<br>t: % related<br>to<br>the field | Employment : % outside the field | No. Pursuin g graduat e or professional education | Projected growth from BLS** Current year only.                |
|--------|--------------------|-------------------------------|---------------------------|--|----------------------------------|---|---|
| Year 1 | \$54,401           | 100%                          | 66.7%                     | 33.3%  | 0                                | 0   | <b>V</b>  |
| Year 2 | \$45,824           | 85.7%                         | 85.7%                     | 14.3%  | 0                                | 6.7%  | *   |
| Year 3 | \$57,333           | 100%                          | 66.7%                     | 33.3%  | 0                                | 2.9%  | 3.9% for 1 year; 15% for 2014-2024 (much faster than average) |

<sup>\*</sup> May not be collected every year

Provide a brief assessment of student need and demand using the data from tables 11-15 from
the Office of Planning and Analysis and from the table above. Include the most common types of
positions, in terms of employment graduates can expect to find.

## **Co-Ops and Internships for MIS Majors**

|                                | AY 13 | AY 14 | AY15  |
|--------------------------------|-------|-------|-------|
| Participated in MIS Co-Op      | 10%   | 40%*  | 42.3% |
| Participated in MIS Internship | 10%   | 30%   | 34.6% |

<sup>\*</sup>Highest percentage in the Business School

#### Provide assessment here:

The MIS Program focuses on maintaining a relevant curriculum given the fast changing nature of the industry it serves. This focus assists in generating career opportunities for our graduates. As can be seen in the tables above, demand for our graduates is high, generating average starting salaries in excess of \$50,000. Moreover, almost all are employed in Kansas with all graduates employed in MIS or a field directly related to it. Our students are also in high demand during their college years for Co-Op positions and paid internships. The percentage of MIS students participating in Co-Ops and Internships is among the highest in the university.

Some of the major employers are Koch Industries, High Touch Technologies, NetApp, and the City of Wichita, among others. These firms are also often firms that utilize our students in Co-Ops and internships. This situation is better for our students than it was 3 years ago and demand is expected to increase by almost 4% next year.

Graduates of this program should be able to successfully pursue employment as System Analyst, Telecommunication Analyst, Information Center Consultant, Database Administrator, Departmental MIS Manager, Application Programmer, Maintenance Programmer, Functional Area MIS Liaison, Network Administrator, Mobile App designer, or Web Database Developer Database Designer.

5. Analyze the service the Program provides to the discipline, other programs at the University, and beyond. Complete for each program if appropriate (refer to instructions in the WSU Program Review document for more information on completing this section).

Evaluate table 16 from the Office of Planning Analysis for SCH by student department affiliation on fall census day.

a. Provide a brief assessment of the service the Program provides. Comment on percentage of SCH taken by majors and non-majors, nature of Program in terms of the service it provides to other University programs, faculty service to the institution, and beyond.

#### Provide assessment here:

The MIS program provides significant support to the Barton School of Business as the percentages in table 16 indicate. Non-majors comprise of over 90% of MIS credit hours. This is due to the fact that all business majors are required to take MIS 395 as part of their undergraduate core curriculum. The MIS program also provides a large number of Co-op learning experiences and internships that benefit local

employers and our local economy, as well as acting as a stepping-stone to future careers for our students.

Our faculty is committed to ongoing university and community service through a number of channels, including board memberships on charities, local and national professional organizations and not-for-profit organizations.

6. Report on the Program's goal (s) from the last review. List the goal (s), data that may have been collected to support the goal, and the outcome. Complete for each program if appropriate (refer to instructions in the WSU Program Review document for more information on completing this section).

| (For Last 3 FYs)      | Goal (s)                        | Assessment Data Analyzed        | Outcome                     |
|-----------------------|---------------------------------|---------------------------------|-----------------------------|
| High Quality Research | Aligned with previous goals.    | Data from Faculty Records,      | Exceeded with Exceptionally |
|                       | Increase the overall quality of | exit surveys, publications,     | High Quality Research       |
| High Quality Teaching | faculty's intellectual          | teaching effectiveness surveys, | Output from all tenure-     |
|                       | contributions by advancing      | productivity and awards         | eligible faculty.           |
|                       | the knowledge and practice      |                                 |                             |
|                       | of business.                    |                                 | Exceeded Teaching Goals in  |
|                       |                                 |                                 | All Facets                  |
|                       | New for next evaluation         | Feedback from MIS advisory      |                             |
|                       | period: Improve the quality     | board and other constituents.   |                             |
|                       | and quantity of connections     |                                 |                             |
|                       | between the MIS Program         |                                 |                             |
|                       | and its constituents.           |                                 |                             |
|                       |                                 |                                 |                             |

#### 7. Summary and Recommendations

a. Set forth a summary of the report including an overview evaluating the strengths and concerns. List recommendations for improvement of each Program (for departments with multiple programs) that have resulted from this report (relate recommendations back to information provided in any of the categories and to the goals and objectives of the program as listed in 1e). Identify three-year goal (s) for the Program to be accomplished in time for the next review.

#### Provide assessment here:

The Faculty in MIS are very high quality. The MIS program is very strong in teaching, research and service. It provides a good, and growing, number of graduates that are placed in the MIS field in Kansas at very competitive salaries. Growth was a concern in the last round of assessment and steps taken in improving curriculum and increasing expectations for students appear to have assisted in turning around the slide in SCH and majors. Graduates are very satisfied with their education and they rate faculty performance as very high. The department delivers a very high level of SCH per FTE, but is constrained in its offerings due to loss of faculty resources and the need for more lab space for classes. Additional faculty would also create flexibility in scheduling that might result in SCH growth. This group of faculty is very innovative in their research and class design/delivery. They are adopting

various online delivery methods that will have to be addressed in the next assessment cycle for effectiveness. We would like to grow our major by attracting more high quality students to fulfill the promise of the "Silicon Prairie" in Wichita. One step in this direction has been our development of a Mobile App Summer Camp for high school students. More efforts of this type should be pursued given necessary resources for success.

The department produces the highest quality research in the Barton School as measured by independent quality rankings, i.e., multiple publications in journals ranked as best in MIS with others appearing in the top 5 ranked journals in the field. They are also active in their national meetings as track chairs, presenters and reviewers. More resources to reward this productivity would be helpful to keep the current faculty in place. A loss of one faculty member would be devastating to the major, whereas the addition of one would be a huge benefit to the department, the Barton School and WSU.