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In this issue:

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The Role of Assessment in Accreditation: A Case Study for an MIS Department

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Abstract

In preparation for Millikin University accreditation assessment committees were formed at the university and college levels to facilitate the process. The learning goals/objectives of each college and department need to be soundly rooted in the university's mission statement. This paper shares some of the University's and department's experiences, and outlines a procedure for developing an assessment strategy to achieve accreditation and to improve the program.

Keywords: assessment, objectives, learning goals, accreditation

1. INTRODUCTION

Over the past years accrediting institutions have placed a significant emphasis on assessment as critical to the University's educational mission. According to Acharya (2003), assessments should answer the following questions:

- (1) What do we want the students to learn?
- (2) Why do we want them to learn it?
- (3) How can we help them to learn it?
- (4) How do we know what they have learned?

Blaha and Murphy (2001), describe several principles that should be followed when creating assessment plans. It is advised to determine objectives before selecting measures to assess student learning. They also suggest that assessment tasks needs to be part of normal departmental operations. Blaha and Murphy (2001), recommend the following steps:

- Determine the target
- Develop goals/objectives

- Determine how and where objectives will be assessed.
- Determine how the assessment information will be reviewed and used to make program improvements.

Further information on assessment as it relates to accreditation can be found at the Higher Learning Commission of the North Central Association, www.ncahigherlearningcommission.org/

The assessment process can be viewed as a tree diagram. The University mission and goals are the root of the process. The school or college goals develop from those. Finally, departmental goals grow from the college goals. This paper will demonstrate how the Management Information Systems Department of the Tabor School of Business at Millikin University developed its assessment plan using this process.

Millikin University is a small private comprehensive university with approximately 2300 students. The structure consists of four colleges/schools: Arts and Sciences, Fine Arts, Nursing and the Tabor School of Business. The College of Arts and Sciences is further

divided into three divisions: Natural Science and Mathematics, Humanities, and Social Sciences. The University also includes an adult degree completion program (PACE).

The Management Information Systems (MIS) department is housed in the Tabor School of Business. Currently the MIS department offers nine courses for their majors. Additionally the department teaches two introductory courses required for all Tabor students. Finally, several of the MIS department courses are cross-listed with those in the Computer Science (CS) department and are taken by those majors. The department has two full-time tenure-line faculty, who teach all of the information system courses.

2. THE ASSESSMENT PROCESS AT MILLIKIN

The assessment process began in the spring of 2004 as the University began preparations for its North Central Association accreditation visit scheduled for the fall of 2006. One of the areas that was somewhat problematic at the last visit was assessment. Thus the Millikin accreditation committee decided to make assessment one of the major focal points of the report. A University Assessment Committee (UAC) was formed with one representative from each of the three divisions of Arts and Sciences, a representative from the School of Music (located in the College of Fine Arts), one representative each from Tabor, Nursing and Fine Arts, a representative from the Education department, a representative from PACE and the Coordinator of Institutional Research and Assessment.

The UAC began meeting in the spring of 2004 to begin the planning process

The initial task of the UAC was to facilitate a one-day workshop designed to help faculty begin the assessment process. After this workshop each representative of the UAC selected a team of faculty to assist in the assessment plans for their respective units. In the Tabor School the team consisted of faculty from Accounting, Management and MIS.

Step 1: Developing the Tabor School Objectives

The University had recently adopted a new mission statement as follows:

To Deliver on the Promise of Education

At Millikin, we prepare the student for

- professional success;
- democratic citizenship in a diverse and dynamic global environment;
- a personal life of meaning and value.

Each unit team examined their mission statement and current learning objectives to determine if they were still relevant in light of the University's changes. The mission of the Tabor School is *to deliver an entrepreneurially-focused integrated educational foundation for graduates' professional and personal achievement, and will be a learning partner valued by the business community.* The committee found that the mission statement was still relevant and suggested no changes.

Crouch & Schwartzman (2003) suggest objectives should be kept simple and be limited in number reflecting the strength and/or uniqueness of the program. The Tabor school originally had fourteen objectives, many which could not be measured. Two such objectives were "Maturity and self-confidence" and "A personal philosophy and a framework of professional ethics". While these were attributes that the Tabor School desired of its graduates, the extent to which these objectives were achieved could not be assessed.

A second criterion for developing a learning goal was how it worked to achieve the mission of the University and the mission of the Tabor School. When the assessment team finished this stage of their process, they had developed a set of six learning goals.

Tabor Learning Goals:

- (1) Students will demonstrate competent application of business theory and concept to practical situations in communities outside the formal classroom.
- (2) Students will communicate facts and ideas in written and verbal formats using language, grammar, and organizational skills appropriate to business situations.
- (3) Students will be actively engaged citizens using their education and skills to serve the community.

- (4) Students will demonstrate a strong sense of individual, leader, and team roles and responsibilities.
- (5) Students will discover the global nature of business, including immersion or familiarization with diverse cultures and cultural environments.
- (6) Students will apply those problem-solving and decision-making skills expected of entry-level business professionals.

Step 2: Assessment of the Tabor School Core

Once the new learning goals were adopted by the faculty in the Tabor School, the team began examining the business core courses to see where the objectives could be assessed. The assessment process is only valuable if it is completed. Blaha & Murphy (2004) note that responsibility for assessment tasks must be clearly defined and, whenever possible, be incorporated into regular departmental policy. Also, Maxim (2004) advised that record-keeping be kept to a necessary minimum and use the smallest amount of class time that was practical to still acquire meaningful assessment data. So, while many of the courses in the business core met one or more of the learning goals, the committee decided to assess the objectives at few logical points. This was done for several reasons. First, faculty may have difficulty fitting assessment activities into an already busy schedule. Second, the analysis of assessment data becomes more time-intensive when too many observations are gathered. Thus it may be difficult to find faculty willing to serve on departmental assessment teams. For example, the committee decided to assess written communication (objective 2) at the sophomore level in the MS 240 Organizational Information Systems course (a core business course). Students in this course analyze spreadsheet results and project the best way for a company to proceed. The paper would be comparable to one a businessperson would use in a consulting engagement. Other sophomore courses also use writing assignments, but the team believed this would be the most appropriate one to use for assessment.

Step 3: Assessment of the Majors

After the core assessment plan was completed, the team began to examine each of the majors in the Tabor School. Each major would develop learning objectives that were linked to Tabor School objectives. The process from this point followed the same procedure as in the first two steps moving from the University mission statement to the Tabor objectives.

In keeping with the philosophy of developing easily assessable goals, the MIS faculty developed five central objectives for the MIS major. The assessment team believed that since the Tabor goals were implied throughout the entire business curriculum, they should not be repeated as part of the departmental or major learning goals. For example, one of the Tabor learning goals is that "students will apply those problem-solving and decision-making skills expected of entry-level business professionals." (objective #6) While all MIS courses focus on these skills, the MIS department will assess this objective a Tabor goal rather than an MIS major goal.

MIS Objectives: Using the philosophy above, the MIS faculty developed the following five learning goals:

- (1) Students will demonstrate their database competencies in designing and building a relational database of moderate complexity through database management system software.
- (2) Students will use the System Life Cycle to develop a system design through the use of case modeling and system modeling that will solve a moderately complex business problem; then develop a program from the modeling specifications in any program language.
- (3) Students will be able to understand the basic concepts of security with regards to operating systems and access control.
- (4) Students will apply networking and telecommunication knowledge to specific applications and situations, such as the Internet, intranet, and e-commerce.
- (5) Students will organize and write user documentation, system documentation and IS reports in a language and style appropriate to the profession.

Once the departmental/major objectives were created, the course objectives could be completed. As an example, in the MS370 Database course the objectives are listed below. At the end of each objective is a reference to the MIS major or Tabor School learning goals. Some courses may also have more specific course-only objectives.

MS370 Database Application Development Course Objectives:

- A) Students will demonstrate their database competencies in designing and building a relational database of moderate complexity through database management system software. (MIS #1)
- B) Organize and write user documentation, system documentation and IS reports in a language and style appropriate to the profession. (MIS #5)
- C) Students will demonstrate competent application of business theory and concept to practical situations in communities outside the formal classroom. (Tabor #1)
- D) Students will communicate facts and ideas in written and verbal formats using language, grammar, and organizational skills appropriate to business situations. (Tabor #2)
- E) Students will demonstrate a strong sense of individual, leader, and team roles and responsibilities. (Tabor #4)
- F) Students will apply those problem-solving and decision-making skills expected of entry-level business professionals. (Tabor #6)

Note that the first two MS370 objectives are MIS departmental objectives and the last four reflect Tabor objectives. Thus the students see Tabor objectives repeated in the majors as well as the core courses.

Step 4: Type of Instruments, Data Collection and Evaluation

Once the objectives have been developed and the data collection points have been established, the departments must decide on the instruments that will be used to provide the data. When the team began selecting assessment points, it realized that there should be a common set of criteria on which to judge writing, oral communication and

team skills. Thus, the Tabor School faculty developed common rubrics for writing (appendix A), oral communications (appendix B), and team skills (appendix C), that the students will see in nearly every class. The team also developed (with the approval of the faculty) a common format for the first page of every syllabus. This page includes the Tabor objectives and departmental objectives for the course. The rubrics and syllabi format (appendix D) are included in appendix.

At the MIS departmental level, group projects will be used as the assessment tool in three required courses. The MS370 Database Application Development course focuses on the database design and development. In this course students will have a real client who has a database need. The project is ongoing throughout the semester designing and building this database for the client's application. In the two-semester MS 321/322 System Analysis and Design course the same pedagogy is applied. In the first semester the team designs a system for a client and then in the second semester the team develops a fully functioning system. The group rubric is used at the end of each semester to evaluate the group and individual's work.

In the MS370 Database course a series of 5 Milestones/Rubrics were created for grading purposes. Specific areas of Milestone #2, #4 and #5 were identified to be used for the assessment points. The milestones can be found in the appendix E with the appropriate MS370 objective label in the left-hand column of the page. In Milestone #2, MS370 objectives A, B, and D will be measured. In Milestone #4 the objectives A and F will be measured. Milestone #5 is typically graded by the user, so consequently objective C is measured by the client themselves. To measure objective E the team rubric will be used. The rubric is in appendix E.

The data collected will be measured using a green light, yellow light, and red light scale measuring the level of achievement desired by the MIS faculty. The rubrics for the process are as follows:

Green an acceptable level or clearly heading in the right direction and not requiring any immediate change in course of action. Continuing support should be provided.

Yellow not an acceptable level; either improving, but not as quickly as desired or declining slightly. Strategies and approaches should be reviewed and appropriate adjustments taken to reach an acceptable level or desired rate of improvement.

Red our current status or direction of change is unacceptable. Immediate, high priority actions should be taken to address this area.

A Tabor Assessment Standards guide can be found in appendix F for the rubrics and measurement of the Tabor objectives. The MIS objectives for the MS370 project will be measured using the following criteria. The project must obtain an 85% or above to receive a green light, 75% - 84% to receive a yellow light; projects earning below 75% will receive a red light.

Student criteria

| | | |
|----|--------------------------|--------|
| G | (good) score or above | Green |
| M | (mediocre) score | Yellow |
| <M | less than mediocre score | Red |

A mediocre score indicates a yellow light that could be caused by a number of items. Some examples could be the complexity of a project, the composition of the group, the lack of client support or a lack of student effort or ability. A mediocre score needs to have a close examination for any anomalies. If no anomalies are found it would indicate further investigation. If the criteria indicated a Red light then the faculty may want to examine the instruction in the course and/or the assignment itself.

Step 5: The Assessment Report

The Assessment Report can be a relatively short document (5 pages) describing the assessment activities and results. The Millikin University report outline has the following components:

(1) Goals. State the purpose or mission of the major. (Express the purpose as valued learning objectives and connect those objectives to the university-wide learning goals: professional, global citizenship, personal life of meaning and value.) Provide an image or description or example of the successful student graduating from the major.

(2) Snapshot. Provide a brief overview of the current situation. (snapshot data on staff, facilities, types & number of students served, programs, partnerships, number and types of courses taught)

This is the place for discussing new initiatives and improvements currently being sought. (New courses, changes in curriculum in recent times, improvements or initiatives underway already due to developing this self-study of the major, etc.)

(3) The Learning Story. Explain the typical learning experience provided through the major. How do students learn or encounter experiences leading to fulfilling the learning objectives? (Overview of types of teaching and learning experiences provided, emphasizing the developmental strategy of the curriculum. Provide a rationale for the range and sequence of courses and learning experiences.) (Include the curriculum map either in this section or in an appendix.)

(4) Assessment Methods. Explain the methods and points of data collection for assessing fulfillment of the key learning objectives of assessing effectiveness. (How and what you are assessing.) (Such as: traditions of assessment, methods of gathering outcome effectiveness data.)

(5) Assessment Data. Report the resulting data on key learning objective, charts, tables may be placed in the appendix.

(6) Analysis of Assessment Results. Analyze each key learning objective and establish an effectiveness measure on a green light, yellow light, red light scale. Provide an overall assessment as well for each stated objective of the major.

(7) Improvement Plans. Write an overall assessment of student learning in the major indicating strengths and challenges. Make recommendations for celebrating and continuing support for effective areas, and make recommendations for improvements or at least indicate areas that should be targeted as a focus for future improvement.

A condensed sample report from the MIS department is included in the appendix G.

Millikin University and the Tabor School will begin its formal assessment process in the fall of 2005 with a report to be written for the accreditation team during the summer of 2006. During first part of the fall semester the Tabor School will be collecting assessment artifacts. During the last two weeks of the semester we will be collecting the data from the artifacts. The first semester assessment report will be completed by the end of January 2006.

3. CONCLUSION

The purpose of this paper was to demonstrate an assessment strategy that is relatively straight forward and uses a minimum of faculty resources. Faculty often believe they need to design new activities to accommodate the assessment plans. Most of the time, they need only to look at what they are currently doing and see how it correlates to the assessment plan being developed. The process presented here is one that can be adapted to any size unit or department. Assessment should not be such a bureaucratic nightmare that is undertaken only at accreditation time. It should be a valuable tool to see if the message is reaching the students. What better way to find out if major class projects are working than to put them in the assessment plan?

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Appendices

Appendix A

Tabor Writing Assessment Rubric

Proficient (P)

- Uses professional language
- Free of bias and repetitive syntax
- Few grammatical or spelling errors (not distracting)
- Clearly communicates using precise language
- Professional appearance of product
- Organization is logical

Competence Emerging (E)

- Professional language is predominantly used
- Some bias and/or repetitive syntax is present
- Grammatical or spelling errors are distracting
- Communicates in an understandable manner
- Product has satisfactory appearance
- Some lapses in organization

Significant Improvement Needed (I)

- Language is informal
- Bias and repetitive syntax is prevalent and adversely affects the document
- Frequent grammatical and/or spelling errors
- Intent of communication is unclear
- Appearance of product is unacceptable for professional work
- Organization is disjointed, illogical, and/or confusing

Appendix B**Tabor Student Presentation Assessment Rubric****Proficient (P)**

- Uses professional language
- Clearly communicates using precise language
- Visual aids (i.e., slides, charts, etc.) are simple, clear, can be easily read, and contain no grammatical or spelling errors
- Professional appearance of individual
- Professional appearance of product
- Organization is logical with smooth transitions
- Presenter possesses confidence, good eye contact, and no distracting mannerisms
- Questions are handled with no difficulty

Competence Emerging (E)

- Some non-professional language is used
- Communicates in an understandable manner
- Some visual aids appear cluttered, unclear, difficult to read and/or contain one or more grammatical or spelling errors
- Individual appearance is too casual
- Product has satisfactory appearance
- Some lapses in organization and/or abrupt transitions
- Presenter demonstrates nervousness, poor eye contact, and a few distracting mannerisms
- Some difficulty with responding to questions

Significant Improvement Needed (I)

- Language is informal and/or unprofessional
- Intent of communication is unclear or inappropriate for the audience
- Visual aids are unclear, difficult to read, difficult to understand, and contain frequent grammatical and/or spelling errors
- Appearance of presenter is unprofessional
- Appearance of product is unacceptable for professional work
- Organization is disjointed, illogical, and/or confusing
- Presenter's nervousness, lack of eye contact, and/or mannerisms are significantly distracting
- Fails to address questions and/or clearly and confidently respond to questions

Appendix C

Group Member Evaluation Form (Rubric)

Complete this form privately and return to the instructor when the project is finished. This information will be used to help determine each individual's contribution to the project (can affect individual project grade) and will not be available to other students.

Group Name: _____ Your name: _____ Date: _____

1. **Rate each person in your group (including yourself) on the criteria indicated, using a scale of 0-10.** (0 = unsatisfactory, 10 = superior)

Team Member (Name)

| Criteria | | | | | |
|--|--|--|--|--|--|
| Participation, attendance at team meetings | | | | | |
| Quality of assigned work, carefulness, depth of thinking | | | | | |
| Completion of assigned work within schedule | | | | | |
| Amount of work and effort contributed | | | | | |
| Leadership in organizing and motivating group members | | | | | |
| Cooperation, willingness to help the group | | | | | |
| Resourcefulness, innovation, imagination, creativity | | | | | |
| Group maintenance – concern for other members | | | | | |
| Dependability | | | | | |
| Communication of thoughts, ideas, and concepts | | | | | |
| Knowledge/understanding of the task/processes, etc. | | | | | |
| Individual's overall value and contribution to the group | | | | | |
| Team member rating | | | | | |

2. Rank all members of your group by placing them in the categories below. You must place at least one person in each of the categories! (Include yourself)

Top performers

Average performers
(This may still be very
good performance)

Lower performers
(This may still be accept-
able or good work)

3. Briefly list your own contributions to the project

Provide any other comments which will help in evaluation of the group and its members. Provide specific details regarding what each group member did or did not do to justify your ratings and rankings.

Appendix D**Common Elements for Syllabi Beginning Fall 2005**

The following items should be included on the first page of the syllabus:

- Identification: Faculty name, office, office hours, e-mail address
- Course overview: One paragraph similar to the catalog description.
- Course learning objectives: Include the Tabor Learning Objectives which are applicable to this course, the Department objectives applicable to the course and the specific course learning objectives. Identify the source of the objective.

The following items should be included somewhere in the syllabus:

- Disability arrangements
- Course schedule
- Grading policy/scale
- Statement on academic honesty with penalties for dishonesty
- Final exam policy
- Make-up policy
- Writing Rubric
- Presentation Rubric
- Group Member Evaluation Form (if applicable)

Optional Items:

- Course conduct
- Course prerequisites

Appendix E**Sample Assessment Measurement for MS370**

MILESTONE 2 TEAM: _____ Score: _____ / 75

Key: E - Excellent G - Good M - Mediocre W - Weak P - Poor

SYSTEM INTRODUCTORY DOCUMENTATION (7 pts)

E G M W P

Obj. D

Executive Summary appropriate content for owner/manager
 Advantages of new system correctly determined
 Assumptions reasonable

DATA MODEL (38 pts)

E G M W P

Entity Relationship Diagram

E G M W P

Obj. A

Required features shown
 Understandability (clarity)
 Good names
 Entity meaning clear and unambiguous
 Relationship meanings clear and unambiguous
 Attribute names & meanings clear and unambiguous
 Correctness of entire data model
 Correctly conceived entities and relationships
 Relationships correctly link entities
 Attributes in correct place
 Maximum cardinalities correct
 Minimum cardinalities correct
 Entities, relationships, attributes all needed
 Completeness of entire data model
 Adequate entities to cover required data needs
 Adequate relationships to cover required data needs
 Adequate attributes to cover required data needs

Entity Documentation

E G M W P

Ordered alphabetically
 Descriptive and clear names, Definitions clear & good descriptions
 Entity unique identifiers indicated
 Volumes included
 Comments/explanations appropriate

Relationship Documentation

E G M W P

Ordered alphabetically
 Descriptive and clear name(s)
 When created
 Business policies/rules accurate for relationships
 Explanations appropriate
 Attributes (if Many-Many relationship) correctly listed

Diagram & Documentation match up

E G M W P

Data Model in agreement with Process Model

PROCESS MODEL (20 pts)

E G M W P

Functional Decomposition Diagram

E G M W P

Obj. B

User oriented approach followed
 4 levels as specified:
 system, user subsystem, function category, actual function/activity
 Data entry and updating screens complete (none missing)
 Sufficient Queries planned for each user
 Sufficient Standard Reports planned for each user
 Functions named, numbered appropriately (user's perspective)

Function Activity Descriptions

E G M W P

| | | | | | |
|---|---|---|---|---|---|
| Frequency of Use supplied | | | | | |
| Understandable | | | | | |
| Sufficient detail - good picture | | | | | |
| Database interaction described | | | | | |
| <u>Diagrams and documentation match up</u> | E | G | M | W | P |
| Process Model in agreement with Data Model | | | | | |
| PROJECT QUALITY ASSURANCE REPORTS (5 pts) | E | G | M | W | P |
| Submitted twice, on time, complete info | | | | | |
| PRESENTATION OF DOCUMENTATION (5 pts) | E | G | M | W | P |
| Organization of materials | | | | | |
| Writing style, clarity, paragraph/sentence structure, spelling | | | | | |
| Professional looking & Minimum documentation standards followed | | | | | |
| (Notebook, title page, dividers, order of sections, Table of contents, section headings, page headings, page numbers) | | | | | |
| Includes previous milestone, grading sheet, replaced pages | | | | | |
| Documentation consistent among sections | | | | | |

MILESTONE 4 TEAM: _____ Score: _____ / 100

Key: E - Excellent G - Good M - Mediocre W - Weak P - Poor

| | | | | | |
|---|---|---|---|---|---|
| TABLE IMPLEMENTATION (33 pts) | E | G | M | W | P |
| Obj. A Tables implemented correctly | | | | | |
| Tables with keys, indexes | | | | | |
| Not null columns | | | | | |
| Constraints included, correct | | | | | |
| Agrees with Milestone 3 design | | | | | |
| TABLE TEST DATA (15 pts) | E | G | M | W | P |
| Obj. F Representative | | | | | |
| Sufficient data | | | | | |
| Sets of related data | | | | | |
| SAMPLE QUERIES, REPORTS (26 pts) | E | G | M | W | P |
| Obj. F Test Plan | | | | | |
| Variety of SQL features, complexity | | | | | |
| Good choice of business function queries, reports | | | | | |
| DEMO (10 pts) | E | G | M | W | P |
| PROJECT QUALITY ASSURANCE REPORTS (8 pts) | E | G | M | W | P |
| Submitted twice, on time, complete info | | | | | |
| PRESENTATION OF DOCUMENTATION (8 pts) | E | G | M | W | P |
| Organization, Professional looking | | | | | |
| Writing style, sentence structure, spelling | | | | | |
| Previous milestones and grading sheets included | | | | | |

MILESTONE 5 TEAM: _____ Score: _____ / 25

Key: E - Excellent G - Good M - Mediocre W - Weak P - Poor

| | | | | | |
|--|---|---|---|---|---|
| MEETS USERS NEEDS (10 pts) | E | G | M | W | P |
| Obj. C MEETS USERS REPORT NEEDS (9 pts) | E | G | M | W | P |
| ADHERES TO MU STANDARDS (3 pts) | E | G | M | W | P |
| DEMO (3 pts) | E | G | M | W | P |

Appendix F

Tabor Assessment Standards

| | | |
|--|-----------------------------------|--------|
| Written Communication | 80% (P or I) | Green |
| | 70% (P or I) | Yellow |
| | <70 % (P or I) | Red |
| Presentations | 80% (P or I) | Green |
| | 70% (P or I) | Yellow |
| | <70 % (P or I) | Red |
| Teamwork | 85% above 85 pts | Green |
| | 75% above 85 pts | Yellow |
| | <75% above 85 pts | Red |
| ETS Examination | 60% above national avg. | Green |
| | 50% above national avg. | Yellow |
| | <50% above national avg. | Red |
| Internships or Small Business Consulting | 85% successfully completed | Green |
| | 70% successfully completed | Yellow |
| | <70% successfully completed | Red |
| Internships | 70% empl. desire future intern | Green |
| | 60% empl. desire future intern | Yellow |
| | <60% empl. desire future intern | Red |
| Student Consulting | 70% clients desire future intern | Green |
| | 60% clients desire future intern | Yellow |
| | <60% clients desire future intern | Red |
| Student projects | 70% above 78% score | Green |
| | 60% above 78% score | Yellow |
| | <60% above 78% score | Red |

Appendix G

Assessment Report
Millikin University
Student Learning in the MIS Major

IntroductionGoals

The Management Information Systems (MIS) program provides the opportunity for students to obtain the skills to be a key player in building information systems to improve the business operations and decision-making of twenty-first century organizations. MIS students learn that in today's ever changing global business environment, the ability to collect, organize, store, and transform vast amounts of business data into accurate, timely and understandable information has a significant impact on an organization's performance.

The MIS professional must have a thorough understanding of business principles, technologies, and methodologies to effectively create technological business solutions that address the operational and decision-making needs of organizations.

- Upon Graduation:
It is anticipated that upon graduation MIS students will assume entry-level departmental line and staff positions with titles as such as business analyst, system analyst, information systems specialist, programmer analyst, or information systems consultant. As MIS graduates gain industry experience they are likely to assume roles as managers or senior technical staff.
- See Enclosure 1 MIS Objective Matrix

Snapshot

The MIS department has 2 full time professors who have divided the workload up into two logical areas: (1) Networking and Security (2) Database and System Analysis and Design. Either professor can cover the other MIS course. The MIS major is a 21 hour major with consisting of 5 core courses:

MS221 Program Design and Development
MS321 System Analysis and Design
MS322 Systems Design Using DBMS
MS331 Networking and Telecommunication
MS370 Database Application Development

Student must pick two of the following courses:

MS 302 COBOL as a Second Language
MS 332 Information Systems Security and Control
MS 350 Web Programming
MS 471 Management Information Systems Internship
MS 491 Seminar in Information Systems

Currently the MIS department has 50 students in the program. The MIS courses are cross-listed with the Computer Science department and frequently have many students

from both disciplines in the same course. MS120 and MS240 are both core Tabor courses in the Tabor curriculum.

- Out-of-classroom activities include:
 - Independent Study – Salvation Army Christmas Food and Toy Program Relational database developed to meet the Salvation Armies needs for their Christmas Program.
 - Internship Programs – Sample companies: State Farm, Carl Hospital, UPS, Heckman Health Care, MB Financial Bank and Caterpillar
 - Two of our MIS students have been the past web masters for the Tabor School of Business, and many more of our students create websites for student organizations, friends and contract employment.
 - Many other students will assist Millikin students on campus who are less knowledgeable about their PC security. Help them clean viruses and spy ware off their person computers in the dorm rooms.

The Learning Story

Typical Learning Experience

The MIS program is based on a balance of business fundamentals and of skills in the analysis, design, and implementation of information systems. The MIS student learns how to effectively lead and/or participate in cross-functional teams through courses that focus on interpersonal skills including problem solving, team building, and written/verbal communication.

The MIS student course of study includes theoretical and practical discussion of information technology, including the design and usage of databases, networking, information security, computer programming fundamentals, knowledge management, and other current topics. The MIS student will have opportunities to put classroom theory to practical use through course-based application problems, internships, and practicum.

Assessment Methods

The assessment methods for each individual class will be outlined in the Syllabi for each of the MIS courses. The assessment methods for MS370, MS321, MS322, MS332 and MS331 will be used through the projects in the course. The assessment methods for projects are outlined in the appendix.

Enclosure 1

The following MIS objectives can be found in the marked classes:

| | MS 321 | MS 322 | MS 331 | MS 370 | MS 332 | MS 220 | CS 130 | MS 302 | MS 350 |
|--|-------------|-------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|
| 1. Students will demonstrate their database competencies in designing and building a relational database of moderate complexity through database management system software. | | ✓ | | ✓ | | | | | |
| 2. Students will use the System Life Cycle to develop a system design through the use of use case modeling and system modeling that will solve a moderately complex business problem; then develop a program from the modeling specifications in any program language. | ✓ | ✓ | | | | | | | |
| 3. Students will be able to understand the basic concepts of security with regards to information access control in a network environment. | | | | | ✓ | | | | |
| 4. Students will apply networking and telecommunication knowledge to specific applications and situations, such as the Internet, intranet, and e-commerce. | | | ✓ | | | | | | |
| 5. Organize and write user documentation, system documentation and IS reports in a language and style appropriate to the profession. | ✓ | ✓ | | ✓ | | | | | |
| 6. Tabor Objectives Met | 1,2, 4,6 | 1,2, 4,6 | 2,6 | 1,2, 4,6 | 2,6 | 2,6 | 6 | 6 | 6 |