

**Texas State University-San Marcos**  
**Academic Program Student Learning Outcomes Assessment**

Year 2009-2010

College/Division Business

Department/Unit Accounting

Program Name/Department Accounting and Information Technology (MS)

Program Code 557G MS

Contact Dr. Roselyn Morris

**MISSION STATEMENT**

The mission of the Master of Science in Accounting Information Technology (MSAIT) program is to prepare students for successful careers in the accounting and information technology professions. Many students will be eligible to sit for professional certification exams, such as CPA, CISM, CITP, CIA, AFE and others. The MSAIT program emphasizes oral and written communication, information technology, and technical and research skills needed for a careers in accounting and information technology.

-----

**EVIDENCE OF IMPROVEMENT**

The MSAIT program was started in 2006, with first enrolled students in fall 2007, and 2008-2009 was the first year with all courses taught and one student completed the program; one completed in summer 2009; three in fall 2009 and five in spring 2010. The improvement from 2007-2008 to 2009-2010: all courses are now developed, taught, and assessed. All graduates took and passed an exit exam. The assessments for 2009 provide beginning bench marks. Faculty continue to refine goals and alignment in the different courses. The MSAIT Advisory Board will meet in fall 2010 to discuss changes to the curriculum of the program, including the capstone course of ACC 5375 – Business Consulting.

-----

**OUTCOME NUMBER 1**

Students will demonstrate applying accounting and information technology knowledge in new and unfamiliar circumstances. To fulfill this outcome, the student will correctly analyze the problem, develop and explain findings, and justify a conclusion or recommendation.

**Method 1**

Assessment of a student's ability to apply accounting and information technology knowledge in new and unfamiliar circumstances will be conducted in the following ways.

In ACC 5362 (Cost Accounting) and ACC 5371 (Accounting Information Systems), embedded exam and final exam questions will be used. It is expected that 80% of the students will make an 80% or better on these questions. In ACC 5373 (Fraud Detection and Prevention), a project will be used. It is expected that 80% will make an 80% or better, using an established rubric.

CIS 5355 (Database Management Systems), CIS 5358 (IT Systems Project Management), and CIS 5368 (Information Security) will use a rubric to evaluate a set of out-of-class individual assignments/projects and exam-embedded questions. It is expected that 70% of the students will make 85% or better.

### **Result 1**

In a section in the fall and spring semester of ACC 5362, 12 MSAIT students were assessed on applying activity based costing systems, cost allocation, budgeting and planning, standard costing, pricing and profitability analysis, tactical decision making and capital investment in new and unfamiliar circumstances; 72% met or exceeded expectations. In spring section of ACC 5371, 9 MSAIT graduate students were assessed on choice of an information system, need for controls in an IT environment and assessing fit of IT applications; 77% met or exceeded expectations. In fall and spring, 15 MSAIT graduate students in ACC 5373 wrote up cases on detecting fraud in different scenarios and were tested on the greed and fraud differences, auditing and fraud examination differences, and investigation for hidden assets in a divorce; 67% of students met or exceeded expectations.

CIS 5355 was offered only during fall 2009 semester. During the semester, 9 MSAIT graduate students completed an assignment to conceptualize and implement a relational database schema for a specified scenario. In addition, students answered several questions embedded in examinations that assessed the database normalization principles and process. 78% of students met or exceeded expectations based on the rubric used.

In fall section of CIS 5358, a total of 18 graduate students were enrolled and assessed on strategic project planning process, project scope control, and different project selection methods. 100% met or exceeded expectations based on the rubric used.

CIS 5368 was offered during fall and spring semesters. The 29 graduate students enrolled were assessed using a case study requiring students to resolve security issues with planning and implementing a new data center. They also answered an essay question on planning and implementing security measures. Overall, 83% met or exceeded expectations while 17% failed to meet expectations based on the rubric used.

Faculty observations are that students are able to apply appropriate accounting and information systems knowledge in new and unfamiliar situations. Some students are uncomfortable in such situations; others can apply the accounting and information systems knowledge but are hesitate to draw conclusions. To facilitate the application of accounting and information systems knowledge in new and unfamiliar situations, faculty will continue to adjust goals and refine assessment methods to track student improvement.

## **Method 2**

Additional assessment of this outcome will be accomplished as follows.

In ACC 5375 (Business Consulting), juried projects will be used to assess students' ability to apply accounting and IT knowledge. The projects will be graded by a jury of external business people according to an established rubric. It is expected that 80% of students will meet an 80% acceptance level on the projects.

CIS 5370 (Enterprise Resource Planning) will use a rubric to evaluate a set of in-class and out-of-class exercises wherein students create, in a real ERP system, an organizational structure and an accounting system structure to process and enter transactions and observe results for a business. It is expected that 70% of the students will make 85% or better on these exercises to demonstrate mastery of this outcome.

## **Result 2**

In a fall and spring section of ACC 5375, 7 MSAIT students prepared IT projects for external clients; 80% met or exceeded expectations as determined by the external clients using an established rubric.

CIS 5370 was offered only in fall 2009 semester. 8 MSAIT graduate students applied accumulated knowledge of ERP, its context, and business processes to a case involving implementation decision; understanding of a specific ERP system implementing the production logistics process and how that process is integrated with the procurement process; 100% met or exceeded expectations.

## **Action Plan**

Based the results, the program faculty plan to challenge the students to apply accounting and information systems in new and unfamiliar situations. The courses, such as ACC 5375, have implemented, and will continue to implement, projects consulting with actual businesses

---

## **OUTCOME NUMBER 2**

Students will apply analytical and critical thinking skills to evaluate information, solve problems, and make sound decisions in accounting and information technology problems. To accomplish this outcome, the student will synthesize and evaluate the relevance of data and demonstrate analytical and critical thinking skills in exploring new questions, analyzing complex issues from multiple perspectives and arrive at reasoned conclusions.

## **Method 1**

Analytical and critical thinking skills will be assessed in the following ways.

In ACC 5362 (Cost Accounting) and ACC 5371 (Accounting Information Systems), embedded exam and final exam questions and cases will be used. It is expected that 80% of the students

will make 80% or better on these questions. In ACC 5373 (Fraud Detection and Prevention), a project will be used; it is expected that 80% will make 80% or better using an established rubric.

### **Result 1**

In a fall and spring sections of ACC 5362, 12 MSAIT student were assessed on applying activity based costing systems, cost allocation, budgeting and planning, standard costing, pricing and profitability analysis, tactical decision making and capital investment in new and unfamiliar circumstances; 76% met or exceeded expectations. In spring section of ACC 5371, 9 MSAIT graduate students were assessed on choice of an information system, need for controls in an IT environment and assessing fit of IT applications; 82% met or exceeded expectations.

Faculty observations are that students are able to analyze and critically think in exploring new questions, analyzing complex issues from multiple perspectives and arrive at reasoned conclusions. Some students can apply the accounting and information systems knowledge but are hesitate to draw conclusions. To facilitate the analysis and critical thinking of accounting and information systems knowledge to draw reasoned conclusions, faculty will adjust goals and refine assessment methods to track student improvement.

### **Method 2**

ACC 5375 (Business Consulting) will use term papers and juried projects. A common rubric will used to assess performance. It is expected that 80% of the students will analyze and display critical thinking in the papers and projects at the 80% level. It is expected that the jury of external business people will judge the projects to be at the 80% level.

CIS 5358 (IT Systems Project Management) and CIS 5368 (Information Security) will use a combination of out-of-class individual assignments/projects and exam-embedded questions. The instructors will use a common rubric to evaluate this set of out-of-class assignments. It is expected that 70% of the students will make 85% or better on these evaluations.

### **Result 2**

In a fall and spring section of ACC 5375, 7 MSAIT students prepared IT projects for external clients; 80% met or exceeded expectations as determined by the external clients using an established rubric.

In fall section of CIS 5358, a total of 18 graduate students were enrolled and assessed on developing and analyzing different types of costs estimates and methods for preparation of the estimates. 100% met or exceeded expectations based on the rubric used.

CIS 5368 was offered during fall and spring semesters. The 29 graduate students enrolled were assessed on a project comparing physical and virtual risk management techniques for a specified scenario and responded to an essay question pertaining to 9 steps of Risk Assessment on an exam to assess if students are able to arrive at a decision based on critical thinking and analysis.

Overall, 97% met or exceeded expectations while 3% failed to meet expectations based on the rubric used.

### **Action Plan**

Based the results, the program faculty plan to stress the analysis and critical decision making skills to accounting and information systems situations to arrive at reasoned conclusions. Faculty in accounting and CIS are working together to develop databases and projects that will be used in both the accounting and CIS classes. The timeline by the SEC to have all public companies to use XBRL for all public companies provides current relevance of the projects to be developed for ACC 5371 to develop accounting systems to capture and describe data.

---

### **OUTCOME NUMBER 3**

Students will use information technology skills in decision making at a level expected of a master's student for practice and research in accounting and information technology used in a business consulting capacity. To fulfill this outcome, the student will learn to use information technology (IT) and be able to apply IT in analysis and communication.

#### **Method 1**

IT skills will be evaluated in the following ways.

In ACC 5371 (Accounting Information Systems), a project will be used. It is expected that 80% of the students will score 80% or better on these questions.

CIS 5355 (Database Management Systems), CIS 5358 (IT Systems Project Management), CIS 5368 (Information Security) will use exam-embedded questions. It is expected that 70% of the students will make 85% or better.

#### **Result 1**

In spring section of ACC 5371, 9 MSAIT graduate students did Excel project and assignments; 82% met or exceeded expectations. .

CIS 5355 was offered only during fall 2009 semester. During the semester, 9 MSAIT graduate students completed assignments and responded to several questions on examinations to conceptualize, develop, and execute SQL queries against a database. 78% met or exceeded expectations based on rubric used.

In fall and spring sections of CIS 5358, a total of 7 MSAIT graduate students were enrolled. These students used Microsoft Project software to create Gantt Charts and Work Breakdown Structures. In addition, they responded to several exam-embedded questions pertaining to the use of Microsoft Project. 94% met or exceeded expectations based on the rubric used.

CIS 5368 was offered during fall and spring semesters. Of the 29 graduate students enrolled, the students completed two exercises to assess student's ability to use IT skills at an appropriate level. These included a case study addressing the need for information security for a hypothetical scenario and an essay question pertaining to Business Impact Analysis on an examination. 100% met or exceeded expectations using the established rubric.

Faculty observations are that students gain confidence and experience in using new IT software. The students seem to be challenged when dealing with the use of IT skills in analyzing and assessing security risks in information systems. The projects will be refined and expanded.

### **Method 2**

ACC 5375 (Business Consulting) will use term papers and juried projects. It is expected that 80% of the students will use IT and apply IT in analysis and communication at the 80% level. It is expected that the jury of external business people will judge the projects at 80% or better level.

CIS 5370 (Enterprise Resource Planning) will use a large set of in-class and out-of-class exercises wherein students create, in a real ERP system, an organizational structure and an accounting system structure to process and enter transactions and observe results for a business. The instructor will use a rubric to evaluate in-class and out-of-class exercises. It is expected that 70% of the students will make 85% or better.

### **Result 2**

In a fall and spring section of ACC 5375, 7 MSAIT students prepared IT projects for external clients; 80% met or exceeded expectations as determined by the external clients using an established rubric.

CIS 5370 was offered only in fall 2009 semester. 8 MSAIT graduate students created, in a real ERP system, an organizational structure and an accounting system structure to process and enter transactions and observe results for a business; 100% met or exceeded expectations.

### **Action Plan**

Based the results, the program faculty plan to continue the use of IT projects in the appropriate classes. Faculty are working to refine goals, expand projects, and provide a detailed grading structure and expectations of levels for each class. The MSAIT Advisory Board will meet in fall to refine the curriculum, pre-requisites, suggested order of the classes and modifications to the capstone course.

---

## **OUTCOME NUMBER 4**

Students will conceptualize a complex issue into a coherent, persuasive written or oral statement. To fulfill the written portion of the outcome, the student will develop well-written reports, memos, and projects that explain findings, organize ideas into a coherent train of thought, and justify a conclusion or recommendation. To fulfill the oral portion, the student will make effective oral presentations that explain findings, organize ideas into a coherent train of thought, and justify a conclusion or recommendation.

### **Method 1**

Written and oral communication skills will be assessed in the following ways.

In ACC 5373 (Fraud Detection and Prevention) projects will be used. It is expected that 80% of the students will make an 80% or higher on written communication skills.

CIS 5358 (IT Systems Project Management), CIS 5368 (Information Security) will use out-of-class individual assignments/projects. The instructor will use a rubric to evaluate the set of out-of-class assignments. It is expected that 70% of the students will make 85% or better.

### **Result 1**

In fall and spring, 15 MSAIT graduate students in ACC 5373 wrote cases and projects on detecting fraud in different scenarios; 26% met or exceeded expectations.

In fall and spring sections of CIS 5358, a total of 7 MSAIT graduate students were enrolled. These students prepared and presented an executive summary on an initial assessment of various alternative projects using the weighted scoring model for C-level review. 94% met or exceeded expectations based on the rubric used.

CIS 5368 was offered during fall and spring semesters. Of the 29 graduate students enrolled and assessed on a written report on a short case study in which they had to critically address security risks involved when a company off-shores its information systems development projects. 100% met or exceeded expectations based on the rubric used.

Faculty observations are that students can conceptualize a complex issue into a coherent, persuasive written or oral statement; that students become more effective communicators and gain poise with practice. The percentage meeting or exceeding expectations in ACC 5373 was observed to be somewhat low primarily due to lack of proofreading and utilizing the Writing Center. The written cases, projects presentations will be refined and expanded; expectations will be conveyed to the students.

### **Method 2**

Oral communication skills will be assessed through student presentations in ACC 5375 (Business Consulting). It is expected that the jury of external business people will judge the oral presentations of the projects at the 80% or higher level for at least 80% of the students.

### **Result 2**

In a fall and spring section of ACC 5375, 7 MSAIT students presented projects for external clients; 80% met or exceeded expectations as determined by the external clients using an established rubric.

### **Action Plan**

Based the results, the program faculty plan to continue the written and oral communications in the appropriate classes. ACC 5373 plans to convey expectations of writing and grade drafts of papers so that the final papers will meet expectations.

---

## **OUTCOME NUMBER 5**

Students will understand the importance of group dynamics in achieving organizational goals and use the skills needed for effective teamwork. To accomplish this outcome, students will demonstrate an ability to work effectively in teams.

### **Method 1**

Teamwork skills will be assessed in ACC 5375 (Business Consulting). This course will use teams on juried projects. It is expected that 80% of the teams will demonstrate quality team skills with scores of at least 80% as judged by the team members, external business people and instructor.

### **Result 1**

In a fall and spring section of ACC 5375, 7 MSAIT students worked in teams on juried projects for external clients; 100% met or exceeded expectations.

Faculty observations are that students worked well in team projects. The projects will be refined and expanded.

### **Method 2**

CIS 5358 (IT Systems Project Management) will use three out-of-class group projects to assess this skill, using a rubric agreed upon by faculty. It is expected that 70% of the students will make 85% or better.

### **Result 2**

In the fall semester of CIS 5358, 18 graduate students were assessed on team work on three out-of-class projects; 94% met or exceeded expectations.

### **Action Plan**

Based the results, the program faculty plan to continue the use of team projects in the appropriate classes. The evaluation of team projects in ACC 5375 by team members will be part of the class evaluation. ACC 5375 will move up the final presentation of projects to the clients so that the final will be a debrief and discussion of group dynamics, things that went right and wrong, and formalized feedback from the clients. Faculty are working to refine goals and provide a detailed grading structure and expectations of levels for each class.

---

## **OUTCOME NUMBER 6**

Students will apply ethical reasoning for resolution of ethical dilemmas of accounting and information technology. To satisfy this outcome, the student will be able to recognize an ethical dilemma, apply ethical reasoning to resolve it and provide support for the resolution and effects on stakeholders.



**Method 1**

Ethical issues will be assessed in ACC 5373 (Fraud Detection and Prevention) through the use of cases. It is expected that 80% of the students will be 80% correct in identifying the dilemma, applying ethical reasoning and providing support for the resolution. An established rubric will be used to grade the cases.

**Result 1**

In fall and spring, 15 MSAIT graduate students in ACC 5373 were assessed on the fraud triangle and controls to encourage employees to be honest; 87% met or exceeded expectations.

Faculty observations are that students can apply ethical reasoning in resolution of ethical dilemmas of accounting and information technology. The cases and projects will be refined and expanded.

**Method 2**

CIS 5368 (Information Security) will use a combination of out-of-class individual assignments/projects and/or exam-embedded questions. The instructor will use a rubric to evaluate this set of out-of-class assignments and exam-embedded questions. It is expected that 70% of the students will make 85% or better.

**Result 2**

CIS 5368 during fall and spring semesters, 29 MSAIT students completed an assignment on intellectual copyright violation to assess if students can recognize and resolve an ethical dilemma. 100% met or exceeded expectations based on the rubric used.

**Action Plan**

Based the results, the program faculty plan to continue the discussion and assessment of ethical dilemmas in accounting and information systems situations in the appropriate classes. The economy is providing current, relevant examples of ethical dilemmas faced by accounting and information systems professionals. ACC 5373 is working to bring guest speakers on a regular basis to the program to highlight these dilemmas.