

I&II. Objective, course/learning experience

Students graduating with a BBA in Computer Information Systems will achieve the following objectives:

Programming

Students will demonstrate proficiency in the programming of object-oriented, GUI, event-driven, database-enabled applications in at least two modern programming languages. Programming proficiency will include conceptual design, elegant and efficient coding, complete testing/debugging, and meaningful documentation.

Database Management Systems

Students will demonstrate understanding of database concepts, and proficiency in developing effective data models, designing and implementing relational databases, and manipulating data using SQL.

Systems Analysis and Design

Students will demonstrate the ability to use appropriate systems analysis and design tools and techniques. Students will understand the concept of systems life cycle and the importance of involving users in systems design.

System Architectures and Technology Tools

Students will demonstrate an understanding of the integration of information systems within the enterprise. Proficiency will be demonstrated by analyzing, diagramming, and evaluating the information systems processes of integrated business units. Emphasis will be placed on functional models, physical architectures, and security controls of an organization.

Telecommunications

Students will demonstrate proficiency in understanding technical fundamentals of telecommunications and computing networks. Students will reinforce their knowledge of the layered network communications model through hands-on laboratory experiences.

Business and Interpersonal Skills

Students will demonstrate the communication, interpersonal relationship, management, problem solving, and professional skills needed to complete assignments effectively both independently and in groups.

Faculty Review

The faculty considers our objectives annually. Last year, we decided that our objectives are too course-focused as opposed to program-focused. This year, we began the process of revising our objectives this year and will continue the process into the fall. The steps that we took this year were:

1. Formed an Assessment Planning Task Force. This team consists of four faculty members from our department and our department chair.
2. The task force determined which constituents should have a voice in our objectives and determined that we would like to hear from faculty, students, employers, Executive Advisory Board, internship employers, and young alumni.

Comment [A1]: Clearly stating what level of student is being assessed is a component of an exemplary rating for Element I. A.

Comment [A2]: This statement also indicates that the following learning objectives apply to students. Using student centered objectives is exemplary practice for APT Rubric Element IB.

Comment [A3]: Notice that the program objectives are written using a rich description of the content/skill/attitudinal domain. Using these rich descriptions can help guide decisions further down in the assessment process. Description of the domain also relates to Element I.A. of the APT rubric.

Comment [A4]: This objectives could be improved by using a more precise verb. It is difficult to assess "understanding." An alternative phrasing might be: "Students will *describe* database concepts and *develop* effective data models..." assuming the program wants to assess students ability to describe database concepts. Quality of verbs relates to Element I. A.

3. We had a focus group that asked our Executive Advisory Board members which included employers of both our graduates and interns what they would like to see our graduates be able to do after they graduate in three to five years.
4. We surveyed our young alumni last year about the skills they needed to have on the job.
5. Our faculty will meet this fall and consider results of 3 and 4. We will revise our objectives as necessary based upon our faculty opinions.
6. Our goal is to complete the objectives revision by the end of Fall semester 2012. In Spring 2013 once the objectives are revised, we will start the process of revising assessment to meet the new objectives.

Computer Information Systems:

Coverage of Objectives 0 = No Coverage, 1 = Slight Coverage, 2 = Moderate Coverage, 3 = Major Coverage

Comment [A5]: This chart shows what courses map to which objectives. In addition, the chart also indicates the degree to which the objectives are covered in each course. Including the degree of alignment between the student learning outcomes is excellent assessment practice. Alignment of courses to objectives corresponds to Element II of rubric

	Obj 1: Programming	Obj 2: Database Managem nt Systems	Obj 3: Systems Analysis & Design	Obj 4: System Architectures & Technology Tools	Obj 5: Telecomm	Obj 6: Business & Interpersona l skills
COB204 Computer Info Systems	0	2	2	2	2	2
CIS 221 Principles of Programming	3	0	0	0	0	0
CIS 301 Operating Sys & Server Admin	0	0	0	3	2	2
CIS 304 Enterprise Architecture	0	0	2	3	2	2
CIS 320 Computing and Telecomm	0	0	0	0	3	2
CIS 330 Database	2	3	2	2	1	2
CIS 331 Intermediate Programming	3	2	2	2	0	2
CIS 454 Systems Analysis & Design	0	2	3	2	0	3
CIS 484 Info Sys Development & Implementation	3	3	3	3	1	3

III. Evaluation/Assessment Methods

The BBA program in Computer Information Systems uses several methods for its assessment. This table summarizes the process involving these methods. More detail about the methodology follows the table. In 2010-2011, the CIS faculty agreed to and adopted an expected result of 70% of students being proficient in all areas. We will reconsider whether this is realistic in our revision of assessment next year.

Our assessment methods have become very complex. We met with Chris Coleman and Bo Bashkov, representatives from CARS, and asked them about simplification. They gave us several guidelines that we will use as we begin to revise our assessment next year.

They suggested that all assessments do not have to be done every year. This year, we did not conduct two of our indirect assessment surveys (K and L below.)

	Assessment Method	Corresponds to which objective(s)	Type of Measure	Data Collection	Expected Results
A	Assessment Day Test	1 (programming) 2 (database) 3 (SAD) 4 (Architecture) 5 (Telecomm)	Direct	Examination of all junior and senior CIS majors on assessment day	Major revisions were done to this test this year. A preliminary analysis was done for this report. Results will be further analyzed over the summer and reported next year
B	Embedded assessment in CIS221	1 (programming)	Direct	Based upon final exams/Course embedded	70% of students will be proficient based upon redesign of course in 2010 and additional hands-on activities in Spring 2012
C	Embedded assessment in CIS331	1 (programming)	Direct	Skills and concepts based upon quizzes. Development skills based upon programming assignments. Course embedded.	70% of students will be proficient based upon changes made in Spring 2010.
D	Embedded assessment in CIS454	3 (Systems Analysis and Design)	Direct	Based upon all problem solving problems on the three exams	70% of students will be proficient based upon changes in Fall 2011.
E	Embedded assessment in CIS301	4 (Architecture)	Direct	Based upon selected problems on the final exam	70% of students will be proficient
F	Embedded assessment in CIS 320	5 (Telecomm) 6 (Interpersonal skills)	Direct	Based upon selected problems on the final exam. Based upon peer evaluations on a group	70% of students will be proficient based upon redesign in 2011-2012.

Comment [A6]: The following table shows what measures will be used, which objectives they tie to, and whether they are direct or indirect measures. Explicitly indicating the alignment between objectives and measures relates to Element III. A.

Comment [A7]: Notice that all objectives are assessed using at least one direct measure of student learning. Having each objective assessed by at least one direct measure is exemplary practice for Element III. B.

Comment [A8]: The chart also provides expected results for each assessment measure. Brief rationale supporting these desired results are provided subsequently. This aspect of the APT corresponds to Element III C.

				project	
G	Writing rubric CIS 454	6 (Writing)	Direct	Random sample of students based upon 1 writing assignment. Course embedded.	70% of students will be proficient based upon improvements in teaching writing throughout curriculum
H	Global problem solving rubric CIS 454	6 (Global problem solving)	Direct	Random sample of students based upon 1 writing assignment. Course embedded.	70% of students will be proficient based upon coverage of global problem solving in COB204, CIS 304, CIS330, and CIS 454
I	Focus group of graduating seniors	Curriculum, advising, facilities and major	Indirect	Focus group with a group of graduating seniors	This assessment was done in April and results will be analyzed over the summer and reported next year.
J	Senior CIS Majors Survey	Curriculum, advising, facilities and major	Indirect	Web-based exit survey of graduating CIS majors	Comments on the curriculum, advising, facilities, and major.
K	Alumni Survey	1-6	Indirect	Not conducted this year.	N/A
L	Senior CIS Minors Survey	Curriculum, advising, facilities and major	Indirect	Not conducted this year.	N/A
M	Embedded Assessment in CIS 304	3 (SAD) 4 (Architecture) 5 (Telecomm)	Direct	Based upon selected problems on the final exam	70% of students will be proficient
N	Embedded assessment in CIS484	1 (programming) 2 (database) 3 (SAD) 4 (Architecture) 6 (Interpersonal skills)	Direct	Based upon group projects, individual programming assignments, and individual quizzes	70% of students will be proficient. CIS 484 is the capstone class and this expectation is based upon the entire curriculum
O	Embedded assessment in CIS 330	2 (database)	Direct	Based upon homework, in class assignments, tests, and projects	70% of students will be proficient based upon more examples provided in Fall 2011.

A. Assessment Day Test

General Information/Relationship to Objectives. The test has been used since 2004. It has undergone revisions every couple of years, with major revisions done this year. Up until this year, the assessment day exam consisted of three different paper instruments, each with 45 questions. This year we moved the test to a Blackboard test which was administered in the Ashby lab. We changed from three versions of the test to a single test with 60 questions. Students had a week to take the exam. These changes were made for several reasons:

Comment [A9]: Whereas the previous table provides an overview of the assessment methodology, the following paragraphs provide specific details about the match between objectives and instruments, data collection, reliability and other additional validity information, and expected results (components making up section III of the APT rubric).

*For space considerations, only information on assessment instrument A is provided.

- It was becoming increasingly difficult to find a room big enough for all students in our major on Assessment day.
- Having all students do the same exam made it easier to develop questions.
- Having all questions on the same exam made it easier to do reliability calculations.

The test was developed internally by the CIS program faculty to directly correspond directly to sub objectives in each of the first five program objectives. Each test has questions from all five objectives. There are multiple questions per objective and they are spread evenly over the three tests.

Comment [A10]: In this paragraph, the program notes that faculty developed items to directly measure aspects of the program objectives, although the alignment is not explicitly provided. Directly developing and/or aligning items to objectives is excellent practice and will help guide interpretation of test scores in reference to the objectives. Including an item to objective alignment within the report is a component of receiving an exemplary rating for Element III. A.

For each question, we have categorized the question as either problem solving or terminology. We show the major learning objective and sub-objective. We explain why each of the distracters is wrong. A sample question, the first one for Systems Analysis and Design, is included in the following table. This description is done for each question and has been reviewed by all faculty who teach courses that meet this objective as well as other interested faculty. The faculty reviewed the items and agreed that the items matched the objectives as intended.

SAMPLE ASSESSMENT DAY TEST ITEM

<p>SA1) A local retailer has hired Mary to develop her new information system. The system must be completed in four months (short time period), be very reliable, and the retailer needs to know regularly that the project is on schedule. What development methodology would you recommend to Mary?</p> <p>a. waterfall b. filtered c. phased d. prototyping</p>
<p><i>Question Type:</i> Problem Solving</p>
<p>Revised for 2010 test to be phased instead of prototyping. We had another question on prototyping and phased is the more common methodology.</p>
<p><i>Learning Objectives:</i> Life Cycle Compare and contrast systems development methodologies. Identify the criteria necessary and select the proper methodology for a given systems development project.</p>
<p><i>Explanation of distracters:</i> Student does not understand that waterfall is a very slow methodology. Student does not understand that filtered is a reporting technique not a development methodology. Student does not understand while prototyping is good for short projects with visibility, it's not good for a very reliable system.</p>

Comment [A11]: The description and presentation of a sample item of the Assessment Day Test indicates that the instrument provides a direct measure of skills associated with the objectives listed in Table 2 (Element III. B).

Data Collection. All junior and senior CIS majors are required to take the test during a week after assessment. A query is done from the Student Information System to determine who is a junior or senior. All of these students are sent e-mails informing them that they are required to take the test or there will be a hold placed upon their records. The only students excused from the test are those who are classified as a junior but not officially accepted in to the COB and so not officially a CIS major (verified against their transcript,) students who change majors between the time of the query and the time of the test (verified by department,) or students who are away from the campus that semester, usually studying abroad.

Comment [A12]: This statement clearly specifies the students being assessed. Because all graduating students in the program are assessed (along with juniors) by the instruments, the sample is inherently representative of the graduating students (Element III. D). Obtaining a consensus of students is certainly not a requirement. However, the sample used for assessments should be representative of the population of students about whom inferences are to made.

This spring, 204 CIS juniors and seniors took the test either on assessment day or in make-up sessions that followed.

Reliability Calculations:

Cronbach's alpha for all 60 questions on the Assessment exam calculated as .45.

For each of the areas, the Cronbach's alpha was:

- Architecture: 12 questions Cronbach's alpha: .33
- Database: 12 questions Cronbach's alpha: .08
- Programming language: 15 questions, Cronbach's alpha: .23
- Systems Analysis: 10 questions, Cronbach's alpha .47
- Telecommunications: 11 questions, Cronbach's alpha .05

We will discuss these reliability estimates with CARS in the fall.

Expected Results for Current Year (Spring 2012).

Students who have completed the class will do better than those who have not or who are currently enrolled. Seniors will do better than juniors. Results will improve since last year because of the effort we made to improve the questions on the exam.

Comment [A13]: Cronbach's alpha is an estimate of internal consistency, or reliability. This corresponds to APT Element III. E. Providing information about test reliability and validity allows one to better understand the degree to which they can trust inferences made from assessment results. Higher values reflect greater internal consistency on a measure. This program may wish to examine their assessment instruments in an attempt to increase the moderate to low reliabilities. Reliability estimates greater than .60 are typically considered acceptable for program assessment.

Comment [A14]: Explicit specification of desired results for students along with a brief rationale for some of these expectations. This statement relates to Element III. C.

IV. Objective Accomplishments/Results

Comment [A15]: IVA. Results are present, directly relate to objectives, are clearly presented, and were derived by the appropriate statistical analyses. These aspects address Elements IV. A and IV. C of the APT rubric.

** For space considerations, only results for assessments A-D are presented.

A. Assessment Day Test

Any comparison of 2012 scores with earlier year's scores should be made with caution since the test was substantially different in 2012. Many questions carried over from prior years but there were more questions and all questions were answered by all students. The test was also changed from paper-based to online and given in a lab without faculty supervision. In addition, architecture is not reported prior to 2012 because the assessment was of distinctly different concepts.

Analysis of Juniors versus Seniors:

Objective	Juniors			Seniors			Juniors lower than senior
	2010	2011	2012	2010	2011	2012	
Overall Score			28.5			31.5	Yes
Programming	52	41	32.4	65	54	31.6	No
Database	42	41	26.7	66	58	25.9	No
Systems Analysis	43	46	38.0	56	55	49.3	Yes
Architecture	--	--	29.7	--	--	35.7	Yes
Telecommunications	32	34	15.2	50	43	16.9	Yes

Comment [A16]: This section provides past iterations of results for multiple years, meeting the criteria of exemplary for Element IV. B.

Comment [A17]: This table (and similar ones for the other instruments) clearly illustrates how the results align with the program objectives. This is an important component of Element IV A in the APT rubric.

Interpretation of Assessment Day Test: Juniors versus Seniors. As expected, overall junior scores averaged lower than seniors. Systems Analysis which is a course taken in the senior year was significantly lower. The architecture class which is normally taken as Junior but is reinforced with senior level courses was also significantly lower.

Comment [A18]: The program provides interpretation of the assessment results in the context of the CIS curriculum. The program also identifies areas of concern worth examining in the future. Interpretation of results corresponds to Element IV C.

Areas of concern are Programming and Database which are courses traditionally taken as a junior and had slightly higher scores for juniors indicating drop off of knowledge. This had not been true in the past.

Overall percentages were considerably lower than in past years. The questions were similar to prior years so the new format which was an online test and a longer test with less instructor supervision might have contributed to the lower scores. We need to take a look at this to see if we can determine what caused the drop.

These results will be discussed with the CIS faculty in the fall.

Analysis of those who have taken the relevant class versus those who have not:

Comment [A19]: This tables is used to investigate the relationship of taking courses to performance on the assessment. This strategy helps answer the difficult question of impact. Plus, this information could be used to provide validity evidence for the test. One would assume that students who have had more coursework geared toward particular learning objectives would score better than those without such experience. If one did not see a difference, then two possible hypotheses are that students are not learning the skills/content implied by an objective or that the measure is inappropriate.

Objective	Have not taken the relevant course		Currently taking the relevant course*		Previously taken the relevant course*		Course improved score?
	2011	2012	2011	2012	2011	2012	
Programming							
CIS 221**	--	29.1	--	*	--	32.0*	Yes
CIS 331	39	34.1	49	*	58	35.0*	Yes
Database	34	26.5	49	*	63	26.0*	No
Systems Analysis	46	38.0	53	*	61	57.0*	Yes
Architecture	--	20.8	--	*	--	34.4*	Yes
Telecommunications	34	13.6	38	*	52	18.2*	Yes

* Because of the timing of the test and the timing of this report, the calculation of those students who are currently taking the relevant course could not be made. These students are grouped with those who took the course in past semesters. Since the test is given half-way through the middle of the semester that means that concepts taught later in the course would be lower for those students. This calculation will be corrected in the fall.

** CIS 221 and its effect on scores had not been reported in the past.

Interpretation of Assessment Day Test: Relevant Course. As expected, scores were higher for students who have taken the relevant course than those who have not taken the relevant course for all courses except database. The drop in database scores is of serious concern. It may be due to the grouping of students currently in database with those who took the course in the past. We will investigate that further when we recalculate the numbers.

Once again, except in Systems Analysis, overall percentages were substantially lower than in past years.

These results will be discussed with the CIS faculty in the fall.

V. Dissemination

This report is shared with the CIS faculty, the College of Business faculty, and the administration.

The CIS faculty meets regularly to discuss the results of assessment. All CIS faculty are invited to the meetings but those who teach in the area being assessed are the majority of the attendees. Minutes for all meetings are kept and posted in the CIS & MS faculty Blackboard site.

As noted in Section I, we are in the midst of a long-term redesign of objectives and assessment. This is a faculty-led initiative.

Comment [A20]: This section states that the report is shared with the faculty, and the mode and details of communication are clear. This section can be improved by disseminating to other external stakeholders such as advisory committees and conference attendees. Dissemination of assessment results corresponds to Element V.

VI. Uses of evaluation/Assessment Results and Actions Taken

Some of the changes we have made in the past 3 years or plan in the next year are listed in the table.

Objective	Change in Curriculum	Date of change	Reason(s) for change
Assessment	Change in assessment exam	Spring 2012	--It was becoming increasingly difficult to find a room big enough for all students in our major on Assessment day. --Having all students do the same exam made it easier to develop questions. --Having all questions on the same exam made it easier to do reliability calculations.
Assessment	Change in assessment practices and objectives	This is a multiyear project. In 2011-2012, we revisited program objectives.	Our assessment process has become quite complex over time. We would like to simplify assessment and move from a course-oriented assessment to a program-oriented assessment. In order to do this correctly, we are starting with the objectives. We will need to consider whether the 70% goal for each subobjective is realistic. We have a few harder subobjectives which each year fall below that goal. The 70% goal was agreed to across the board in a faculty meeting in 2010 but it appears that we should reconsider.
Assessment	Added assessment of CIS minor and embedded assessment of CIS 304, and CIS 484	Fall 2010 – Spring 2011	To provide more complete assessment of the program
Programming	Change in CIS 221 to add pre-reading and more hands-on activities	Spring 2012	To reinforce material
Programming	Increase discussion of analysis and inheritance and polymorphism topics to increase the number of students in the Exemplary and Proficient areas.	Fall 2012	Below 70% Goal In Exemplary and Proficient areas (Overall goal of 70% has been met but want to get better)
Programming	Change in CIS 484 to concentrate on Web application development instead of desktop application development. Move from Java to .Net with C#.	Fall 2011	CIS Faculty and Executive Advisory Board (EAB) members discussion of programming and trends in industry.
Programming	Increase discussion of inheritance and polymorphism	Fall 2011	Poor results on this topic in CIS 331 assessment
Programming	Change in CIS 221 to have	Fall 2010	The long time faculty member who had taught

Comment [A21]: This table communicates changes in the assessment process itself and to the program based on assessment data. The program has clearly given thoughtful consideration to both. These areas correspond to Elements VI A and VI B of the APT rubric.

Additional Note: This program's Use of Results section was shared – with permission – to JMU's Academic Council because of its excellence. Particularly noteworthy are examples where changes were made to the program in past years and the assessment results improved thereafter. In other words, the CIS program provides evidence that changes faculty made to the program resulted in documented improvement. Please see the final comment below for an example.

	new objectives. Change in textbook, assignments, quizzes, final exam. Course became a coordinated course with common materials across sections. Many topics that were previously covered in CIS 331 were moved down to CIS 221.		this course retired. Prior assessment results suggested that this course had become too easy. Two faculty members met to revamp the course.
Programming	New course content in CIS 484 related to Amazon Web Services and secure eCommerce transactions.	Fall 2010 – Spring 2011	CIS Faculty and EAB members discussion of programming and trends in industry.
Programming	Change in CIS 331 to cover topics such as temp variables that students did not do well on in 2009 assessment	Spring 2010	Poor results in these areas on 2009 assessment day exam
Database	Change in CIS 330 for more hands on activities in the class	Fall 2011	To teach material better by providing more examples.
Systems Analysis and Design	Change in the way “Includes/Extends” are taught in Use case Diagrams	Spring 2012/Fall 2012	Faculty assessment of CIS 484 projects made CIS 454 instructors realize that there was inconsistencies in the way this was taught across sections. We addressed this inconsistency in Spring. We want to improve the diagrams and will work on that for Fall.
Systems Analysis and Design	Change in CIS 454 objectives	Planned for Fall 2012.	Objectives are detailed and content-based. Especially the design objectives do not reflect the course as commonly taught.
Systems Analysis and Design	Change in CIS 454 objectives. Provide students with a clearer link between course objectives and daily activities.	Fall 2011	Objectives did not accurately reflect course as currently taught.
Systems Analysis and Design	Increase weight of projects in the CIS 454 class.	Fall 2011	Students' performance on the second project did not reflect the importance of the project in the class.
Systems Analysis and Design	Change in CIS 304 to cover workflow diagramming	Fall 2010	Survey of alumni suggested this was a widely used skill
Systems Analysis and Design	Change in chapters for Sequence Diagram in CIS 454	Fall 2009	Assessment day exam consistently showed that students were having problems with Sequence Diagrams. We wrote a chapter to supplement the book coverage. The problem went away on the 2010 exam.
Architecture	CIS 304: give feedback on security homework prior to exam	Fall 2012	Embedded assessment showed a weakness in this area.
Architecture	Add a lab on Operating System Architecture. Update the questions on assessment.	Fall 2012	Embedded assessment showed a weakness in this area.
Architecture	Provide simpler enterprise architecture framework to help students understand the big picture of CIS 304	Fall 2011	Suggestions from Advisory board members

Comment [A22]: One of the hallmarks of a mature assessment is when a program can track the effect of its efforts. In this case, students were having problems with Sequence Diagrams. In response, the faculty wrote a supplemental chapter to address this weakness. In subsequent cohorts, this area was no longer a concern. This improvement was likely due to the intervention (supplemental chapter).

Architecture	Add capacity planning to CIS 304	Fall 2011	Faculty members teaching the course feel change is necessary to cover the objective of modeling the physical architecture.
Architecture	Change in architecture curriculum from a very technical hardware/software class (old CIS 304) to an enterprise architecture class (new CIS 304). Objectives were totally rewritten this year.	Fall 2010 – Spring 2011	Survey of seniors and focus group consistently showed that the course was not providing the skills that were needed in the work place.
Telecomm	The new Telecommunications lab will be used to conduct 3-4 Lab exercises and are working to identify new Lab experiences using the additional capabilities present in the Lab. In addition we may revise some existing Lab exercises to take advantage of the Lab's capabilities.	Fall 2012	Majors survey and focus group has consistently noted this as a weakness in the program. Lab completed Spring 2012.
Telecomm	CIS 320 New Telecommunications Lab is being developed and will go live in Fall 2011	Fall 2010 – Fall 2011	Majors survey and focus group has consistently noted this as a weakness in the program.
Telecomm	CIS 320 Change textbook and to review the course objectives with the goal of updating them to recognize changes that have occurred in the discipline of Telecommunications, especially in the area of conversion of voice, data, and video. Other updates will reflect changes in security capabilities and strategies as well as new telecommunications technologies and techniques.	Fall 2011– Spring 2012	<ul style="list-style-type: none"> • Faculty aware of changing telecommunications technology. • Focus group showed students wanting more up to date technology. • Alumni survey showing amount of security technology.
Telecomm	CIS 320. Revamping of the course project. Changes were made to allow students to gain more hands-on experience researching and building experiments to reinforce their learning of the course objectives. Adjusted the non-hands-on research projects to be more applied in focus; again with the goal of providing students with additional reinforcement of core course concepts.		In response to student evaluations and employer surveys

Business & Interpersonal skills	Added consideration of communicating what's important in business terms to CIS 304	Spring 2012	Assessment of writing in CIS 454 showed that students had trouble identifying what was important and communicating it in business language. We decided that presenting the concepts in two classes would help.
Business & Interpersonal skills	New assessment of writing. Rubric developed, tested, and institutionalized.	Fall 2009 – Spring 2011	<ul style="list-style-type: none"> • Survey of alumni suggested gap in writing preparation. • Executive advisory board suggested that graduates were not prepared in writing
Business & Interpersonal skills	Emphasis on writing changed from one writing intensive class to writing over the curriculum.	Spring 2008 – Fall 2010.	<ul style="list-style-type: none"> • Survey of alumni suggested gap in writing preparation. • Executive advisory board suggested that graduates were not prepared in writing
Business & Interpersonal skills	New assessment of global problem solving. Rubric developed, tested, and institutionalized	Spring 2010 – Spring 2011	We were not assessing this objective of our program.

VII. List of accomplishments (Optional)

We received an exemplary rating on the Assessment Progress Template (APT) for 2010-2011 and 2009-2010.