Degree Program Student Learning Report (rev. 7/14)

Fall 2013 – Spring 2014

The Department of Applied Technology in the School of Business & Technology

Business Information Technology, B.S.

Effectively assessing a degree program should address a number of factors:

1) Valid student learning outcomes should be clearly articulated;
2) Valid assessment measures should be used, consistent with the standards of professional practice;
3) There should be evidence that assessment data are being used by faculty to make necessary instructional or assessment changes; and there should be evidence that instructional or assessment changes are being implemented to improve student learning.

PART 1 (A & B)

Relationship of Degree Program Learning Outcomes to Departmental and University Missions

A. Clearly state the school, department and degree program missions.

University Mission	School Mission	Department Mission	Degree Program Mission
Our mission is to ensure students develop the skills and knowledge required to achieve professional and personal goals in dynamic local and global communities.	The mission of the School of Business and Technology is to prepare students to compete and perform successfully in diverse careers in business, technology, sport management, and related fields by providing a quality	The mission of the Department of Applied Technology is to support the School of Business and Technology and RSU in their mission to prepare students to achieve professional and personal goals in dynamic local and global	The Bachelor of Science in Business Information Technology is designed to meet the growing demand for information technology specialists who are able to communicate effectively and are knowledgeable of business needs.

University Mission	School Mission	Department Mission	Degree Program Mission
	academic experience. Undergraduate programs and their respective curricula will remain responsive to social, economic, and technical developments.	communities. Specifically, the organizational structure of the Department of Technology provides the technology course support for the Associate in Science and Associate in Applied Science degrees, as well as the Bachelor of Science in Business Information Technology, the Bachelor of Science in Game Development, and the Bachelor of Technology in Applied Technology. As indicated, many of the programs offered by the Department of Applied Technology are available online.	Students may choose from options in Computer Network Administration or Software Development and Multimedia.

B. Clearly state school purposes, department purposes and degree program student learning outcomes. Align student learning outcomes with their appropriate school and department purposes, and these outcomes and purposes with their appropriate university commitments.

University Commitments	School Purposes	Department Purposes	Student Learning Outcomes
To provide quality associate, baccalaureate, and graduate degree opportunities and educational experiences which foster student excellence in oral and written communications, scientific reasoning and critical and creative thinking.	The SBT provides this support by offering two-year and four-year educational opportunities in business, sport management, and technology.	To provide the technology course support for the AS in Computer Science and AAS in Applied Technology degrees as well as BS in Business Information Technology, BS in Game Development, and BT in Applied Technology.	1. Students will demonstrate competence in analyzing problems, designing, and implementing programs to solve the problems using computer programming languages. 2. Students will integrate the design, implementation and administration of computer networks.

University Commitments	School Purposes	Department Purposes	Student Learning Outcomes
			3. Students will demonstrate knowledge and practical technology and business oriented skills to compete in the modern business environment. 4. Students will be able to integrate the entire software life cycle including analysis, design, implementation, and maintenance.
To promote an atmosphere of academic and intellectual freedom and respect for diverse expression in an environment of physical safety that is supportive of teaching and learning.	The associate and baccalaureate degrees are taught using a large array of innovative methods, including regular classes, online courses, and compressed video.		
To provide a general liberal arts education that supports specialized academic programs and prepares students for lifelong learning and service in a diverse society.	To prepare students to compete and perform successfully in diverse careers in business, technology, sport management, and related fields by providing a quality academic experience.		
To provide students with a diverse, innovative faculty dedicated to excellence in teaching, scholarly pursuits and continuous improvement of programs.			
To provide university-wide student services, activities and resources that complement academic programs.			
To support and strengthen student, faculty and administrative structures that promote shared governance of the institution.			

University Commitments	School Purposes	Department Purposes	Student Learning Outcomes
To promote and encourage student, faculty, staff and community interaction in a positive academic climate that creates opportunities for cultural, intellectual and personal enrichment for the University and the communities it serves.			

PART 2

Discussion of Instructional Changes Resulting from 2012-2013 Degree Program Student Learning Report

List and discuss all instructional or assessment changes proposed in Part 5 of last year's Degree Program Student Learning Report, whether implemented or not. Any other changes or assessment activities from last year, but not mentioned in last year's report, should be discussed here as well. Emphasis should be placed on student learning and considerations such as course improvements, the assessment process, and the budget. If no changes were planned or implemented, simply state "No changes were planned or implemented."

Instructional or Assessment Changes	Changes Implemented (Y/N)	Impact of Changes on Degree Program Curriculum or Budget
Due to miscommunication the BIT Capstone students took only Computer Science Major Field Test (MFT). They were supposed to take both Business MFT and CS MFT and BIT Exit Exam.	Y	No impact of changes on the program or the budget. However, this year's report will not contain data analysis of 3a and 3b of the SLO.
Assessment data for IT 2513 and CS 3413 were stored on Mr. Layton's computer. However, when he retired in May, his computer hard drive was scrubbed and those data were lost. Subsequently, we used course grades to assess those learning outcomes.	Y	Since these SLOs are major part of the course objectives, the course grades should closely reflect the performance measures of the SLOs.

PART 3

Discussion About the University Assessment Committee's 2012-2013 Peer Review Report

The University Assessment Committee in its Degree Program Peer Review Report provided feedback and recommendations for improvement in assessment. List or accurately summarize all feedback and recommendations from the committee, and state whether they were implemented or will be implemented at a future date. If they were not or will not be implemented, please explain why. If no changes were recommended last year, simply state "No changes were recommended."

Feedback and Recommended Changes from the University Assessment Committee	Suggestions Implemented (Y/N)	Changes that Were or Will Be Implemented, or Rationale for Changes that Were Not Implemented
2) While the department reported the move to replace a program assessment test with a national standardize exam (ETS), section 2 of this year's SLR did not report the change in sampling method (see 4D below).	Y	The assessment change statement (para. 2) should have been more specific to include sampling method.
4D) According to last year's SLR (outcome 1, p.6), all BIT and CIS students taking CS 1213, CS 2223, and CS 2323 were given a standardized internal common assessment exam. This measuring instrument has now been replaced with ETS, a national standardized exam. However, your 2012-13 SLR indicates this new measure was administered to only those students completing CS 2323. What is the reason behind the decision to sample only those students completing CS 2323? *During the peer review session, faculty reported plans to administer to al BIT capstone students did not take place due to a miscommunication.*	Y	This year's report contains the Computer Science MFT results of the BIT Capstone students. We felt that this would be a better assessment practice for this SLO since the capstone students have completed most of the required CS courses.
4F) Outcomes 2 (p. 7) and 4 (p.9) fell short of providing a clear and meaningful overview of results. Distribution data would be helpful to see the number of students who fell short of the threshold.	Y	So noted. This year's report contains a breakdown of grades.
4G) Conclusions ought to be tailored to student learning. For instance, outcome 1 (p.7) and 3b (p.9) did not		For outcome 1, we expected students to do below national median since the BIT is not a pure computer science program. Some of the

address any steps that the instructors plan to take to improve student performance (Page 9 of the report indicates that "students will be encouraged to do their best." Please explain what this entails).		subject matters in a typical cs program are not emphasized in the BIT program. We plan to analyze subject categories to see if our curriculum or teaching methods need to be modified. The BIT exit exam has very little weight in overall students' grades. The test was designed for assessment purposes to test students' comprehension of courses in the major.
6) No	Y	CS 2223 Programming I and CS 2323 Programing II courses use the same textbook and the instructors coordinate learning objectives of each course. We are not sure how we may show in the assessment reports collaboration among faculty.
So far, there are no in-direct measures used.	Y	We failed to include the student satisfaction survey we took in the spring of 2013 in the BIT capstone class. We did not take survey last year, but we plan to include a graduate survey in the next year's report.

PART 4

Analysis of Evidence of Student Learning Outcomes

For all student learning outcomes (as listed in Part 1 B above), describe the assessment measures and performance standards used, as well as the sampling methods and sample sizes. For each measure, document the results of the activity measured and draw relevant conclusions related to strengths and weaknesses of their performance.

A. Student Learning Outcomes	B. Assessment Measures	C. Performance Standards	D. Sampling Methods	E. Sample Size (N)	F. Results	G. Conclusions	H. Performance Standards Met (Y/N)
1. Students will demonstrate competence in analyzing problems, designing, and	The Major Field Test (MFT) in Computer Science by the Educational Testing Service	50% of the students who took the exam score more than 50 percentile of	All students in IT 4504 BIT Capstone All classes re online.	6	Major Score Percentile 108N 128 2 108N 130 6 108S 128 2 108N 155 73 108N 130 6	Only one student exceeded 50 percentile which is 17 percent. We will need to gather more data to analyze	N

A. Student Learning Outcomes	B. Assessment Measures	C. Performance Standards	D. Sampling Methods	E. Sample Size (N)	F. Results	G. Conclusions	H. Performance Standards Met (Y/N)
implementing programs to solve the problems using computer programming languages.	will be administered to all BIT Capstone students.	the national scale.			108S 125 1 The scale range for the score is 120-200.	trends. Also, we will need to evaluate individual categories of the exam.	
2. Students will integrate the design, implementation and administration of computer networks.	An IT 2153 hands-on project will be assigned that examines the students' knowledge and ability to set up a minimal Local Area Network (LAN) involving a server and two or more clients.	70% of the students will be able to design a Local Area Network (LAN) upon completing the IT2153 Network Operating Systems I course with an accuracy of 70%	All BIT students taking IT 2153. Class is online.	18	Course Grades: 90-100 9 80-89 5 70-79 1 60-69 3 Course grades were tabulated to make the performance assumption.	15 out of 18 (83%) met the performance measure.	Y
3. Students will demonstrate knowledge and practical technology and business oriented skills to compete in the modern business environment.	In IT 4504, two measures are used: 3a. The comprehensive BIT Exit Exam. The exam consists of questions from each subject area of the core courses.	3a. At least 75 per cent students will demonstrate their competency in the Business Information Technology earning 60 per cent or higher in the comprehensive	All students in IT 4504 BIT Capstone	0	No data available	Neither BIT exit exam nor Business MFT exam was administered.	N/A

A. Student Learning Outcomes	B. Assessment Measures	C. Performance Standards	D. Sampling Methods	E. Sample Size (N)	F. Results	G. Conclusions	H. Performance Standards Met (Y/N)
	3b. The Major Field Test (MFT) in Business administered by the Educational Testing Service in the areas of Accounting, Economics, Management, Marketing, and Management Information Systems.	test. 3b. At least 75 percent of the students will demonstrate their knowledge of the Business Support core through their average performance at or above the 50th percentile on the MFT.	All students in IT 4504 BIT Capstone	0	No data available		N/A
4. Students will be able to integrate the entire software life cycle including analysis, design, implementation, and maintenance.	In CS 3413, the instructor will make a series of assignments allowing students to demonstrate their ability to analyze problems and design complete software solutions for given problems. As the course progresses from analysis to design of software (and other systems),	In CS 3413, Systems Analysis and Design, 70% of the students will be able to analyze and design various software projects representing the requirements of a complete software design upon completing the course with an accuracy of 70%.	All BIT students taking CS 3413. Class is online.	24	Course Grades: 90-100 1 80-89 3 70-79 12 Below 70 8 Course grades were tabulated to make the performance assumption.	16 out of 24 (67%) met the performance measure. Further analysis is needed to make any recommendations since we substituted course grades for the performance measure.	N

A. Student Learning Outcomes	B. Assessment Measures	C. Performance Standards	D. Sampling Methods	E. Sample Size (N)	F. Results	G. Conclusions	H. Performance Standards Met (Y/N)
	the students will use the Software Development Life Cycle (SDLC) and rapid prototyping software development methodologies to investigate and describe problem solutions in a continuing problem called the CPU Case.						

PART 5

Proposed Instructional Changes Based on Conclusions Drawn from Evidence Presented Above

State any proposed instructional or assessment changes to be implemented for the next academic year. They should be based on conclusions reported in Part 4 (above) or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook adoption, new course proposals, curriculum modifications, etc. Explain the rationale for these changes and how they will impact student learning and other considerations, such as curriculum, degree plan, assessment process, or budget. If no changes are planned, simply state "No changes are planned."

Student Learning Outcomes	Instructional or Assessment Changes	Rationale for Changes	Impact of Planned Changes on Student Learning and Other Considerations.
SLO #3	We will re-institute the assessment activities; i.e., capstone students will take both the business MFT and the BIT Exit Exam.	These assessment activities are still valid and the results of MFT can be compared with the national average. The BIT Exit Exam is useful to assess students' strengths and weakness' in the subject areas of the program core courses.	No impact.

PART 6

Shared Pedagogical Insight that Improves Student Learning or Classroom Engagement

(OPTIONAL) If your department or a faculty member has developed a method or technique of teaching that seems especially effective in improving student learning or student engagement in the classroom, please provide a brief description below. More detail can be communicated during the face to face peer review session.

Description
No notable examples.

PART 7 (A & B)

Assessment Measures and Faculty Participation

A. Assessment Measures:

1) How many different assessment measures were used? 2

2) List the direct measures (see rubric): Computer Science MFT, course grades

3) List the indirect measures (see rubric): none

B.

1) Provide the names and signatures of all faculty members who contributed to this report and indicate their respective roles:

Faculty Members	Roles in the Assessment Process (e.g., collect data, analyze data, prepare report, review report, etc.)	Signatures
Roy Gardner	Prepare report	On separate sheet
Curtis Sparling	Collect, analyze data for IT 4504, administered CS MFT exam	On separate sheet
Cliff Layton	Collect, analyze data for IT 2153, CS 3413	On separate sheet
Peter Macpherson	Review report	On separate sheet

2) Reviewed by:

Titles	Names	Signatures	Date
Department Head	Roy Gardner	On separate sheet	9/19/2014
Dean	Bruce Garrison	On separate sheet	9/19/2014

RUBRIC FOR STUDENT LEARNING STUDENT LEARNING REPORT

1) A. Are the school, department and program missions clearly stated?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
The program, department, and school missions are clearly stated.	The program, department, and school missions are stated, yet exhibit some deficiency (e.g., are partial or brief).	The program, department, and school missions are incomplete and exhibit some deficiency (e.g., are partial or brief).	The program, department, and school missions are not stated.

B. Are student learning outcomes and department purposes aligned with university commitments and school purposes?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
Student learning outcomes and department purposes are aligned with university commitments and school purposes.	Student learning outcomes and department purposes demonstrate some alignment with university commitments and school purposes.	Student learning outcomes and department purposes demonstrate limited alignment with university commitment and school purposes.	Student learning outcomes and department purposes do not demonstrate alignment with university commitment and school purposes.

2) How well did the department incorporate instructional or assessment changes from last year's report or from other assessment activities?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All planned changes were listed, whether they were implemented or not, and their impact on curriculum or program budget was discussed thoroughly.	Most planned changes were listed, and their status or impact on curriculum or program budget was discussed.	Some planned changes were listed, and their status or impact on curriculum or program budget was not clearly discussed.	No planned changes were listed, and their status or impact on curriculum or program budget was not discussed.

3) Did the department include peer review feedback and provide rationale for implementing or not implementing suggestions?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All reviewer feedback was listed,	Most reviewer feedback was listed,	Some reviewer feedback was	Feedback from reviewers was not

and for each suggestion a clear rationale was given for its being implemented or not.	and for most suggestions a rationale was given for their being implemented or not.	listed, and for some suggestions a rationale was given for their being implemented or not.	included.

4) A. Are the student learning outcomes listed and measurable?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All student learning outcomes are listed and measurable in student behavioral action verbs (e.g., Bloom's Taxonomy).	Most student learning outcomes are listed and measurable in student behavioral action verbs (e.g., Bloom's Taxonomy).	Some student learning outcomes are listed and measurable in student behavioral action verbs (e.g., Bloom's Taxonomy).	Student learning outcomes are either not listed or not measurable.

B. Are the assessment measures appropriate for the student learning outcomes?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All assessment measures are appropriate to the student learning outcomes.	Most assessment measures are appropriate to the student learning outcomes.	Some assessment measures are appropriate to the student learning outcomes.	None of the assessment measures are appropriate to the student learning outcomes.

C. Do the performance standards provide a clearly defined threshold at an acceptable level of student performance?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All performance standards provide a clearly defined threshold at an acceptable level of student performance.	Most performance standards provide a clearly defined threshold at an acceptable level of student performance.	Some of the performance standards provide a clearly defined threshold at an acceptable level of student performance.	No performance standards provide a clearly defined threshold at an acceptable level of student performance.

D. Is the sampling method appropriate for all assessment measures?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
The sampling methodology is appropriate for all assessment measures.	The sampling methodology is appropriate for most assessment measures.	The sampling methodology is appropriate for some assessment measures.	The sampling methodology is appropriate for none of the assessment measures.

E. Is the sample size listed for each assessment measure?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped

Sample size was listed for all assessment measures.	Sample size was listed for most assessment measures.	Sample size was listed for some assessment measures.	Sample size was not listed for any assessment measures.

F. How well do the data provide clear and meaningful overview of the results?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
For all student learning outcomes the results were clear, more than a single year's results were included, and meaningful information was given that reveals an overview of student performance.	For most student learning outcomes the results were clear, more than a single year's results were included, and meaningful information was given that reveals an overview of student performance.	For some student learning outcomes the results were clear, more than a single year's results were included, and meaningful information was given that reveals an overview of student performance.	For none of the student learning outcomes were the results clear, more than a single year's results were included, and meaningful information was given that reveals an overview of student performance.

G. Are the conclusions reasonably drawn and significantly related to student learning outcomes?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All conclusions are reasonably drawn and significantly based on the results and related to the strengths and weaknesses in student performance.	Most conclusions are reasonably drawn and significantly based on the results and related to the strengths and weaknesses in student performance.	Some conclusions are reasonably drawn and significantly based on the results and related to the strengths and weaknesses in student performance.	No conclusions are reasonably drawn and significantly based on the results or related to the strengths and weaknesses in student performance.

H. Does the report indicate whether the performance standards were met?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
Stated for all performance standards.	Stated for most performance standards.	Stated for some performance standards.	Not stated for any performance standard.

5) How well supported is the rationale for making assessment or instructional changes? The justification can be based on conclusions reported in Part 4 or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook adoption, new course proposals, curriculum modifications, etc. Explain the rationale for these changes and how they will impact student learning and other considerations, such as curriculum degree plan, assessment process, or budget.

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
All planned changes are	Most planned changes are	Some planned changes are	No planned changes are

specifically focused on student learning and based on the conclusions. The rationale for planned changes is well grounded and convincingly explained.	specifically focused on student learning and based on the conclusions. The rationale for planned changes is mostly well grounded and convincingly explained.	specifically focused on student learning and based on the conclusions. The rationale for planned changes is lacking or is not convincingly explained.	specifically focused on student learning and based on the conclusions. There is no rationale.

6) Did the faculty include at least one teaching technique they believe improves student learning or student engagement in the classroom?

Yes	No		
The faculty has included at least one teaching technique they believe improves student learning or student engagement in the classroom.	The faculty has not included any teaching techniques they believe improve student learning or student engagement in the classroom.		

7) A. How well did the faculty vary the assessment measures?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
Assessment measures vary and include multiple direct measures and at least one indirect measure. The number of measures is consistent with those listed.	Assessment measures vary, but they are all direct. The number of measures is consistent with those listed.	Assessment measures do not vary or are all indirect. There is some inconsistency in the number of measures recorded and the total listed.	Assessment measures are not all listed or are listed in the wrong category. The total number of measures is not consistent with those listed.

B. Does the list of faculty participants clearly describe their role in the assessment process?

4 = Exemplary	3 = Established	2 = Developing	1 = Undeveloped
The faculty role is clearly identified and it is apparent that the majority of the faculty participated in the process. The roles are varied.	The faculty role is identified and it is apparent that the majority of the faculty participated in the process. The roles are not varied.	The faculty roles are not identified. Few faculty participated.	The faculty roles are not identified. Faculty participation is not sufficiently described to make a determination about who participated.

EXPLANATION & EXAMPLES OF DIRECT AND INDIRECT EVIDENCE

DIRECT EVIDENCE of student learning is tangible, visible, self-explanatory evidence of exactly what students have and haven't learned. Examples include:

1) Ratings of student skills by their field experience supervisors.
2) Scores and pass rates on licensure/certification exams or other published tests (e.g. Major Field Tests) that assess key learning outcomes.
3) Capstone experiences such as research projects, presentations, oral defenses, exhibitions, or performances that are scored using a rubric.
4) Written work or performances scored using a rubric.
5) Portfolios of student work.
6) Scores on locally-designed tests such as final examinations in key courses, qualifying examinations, and comprehensive examinations that are accompanied by test blueprints describing what the tests assess.
7) Score gains between entry and exit on published or local tests or writing samples.
8) Employer ratings of the skills of recent graduates.
9) Summaries and analyses of electronic class discussion threads.
10) Student reflections on their values, attitudes, and beliefs, if developing those are intended outcomes of the program.

INDIRECT EVIDENCE provides signs that students are probably learning, but the evidence of exactly what they are leaning is less clear and less convincing. Examples include:

1) Course grades.
2) Assignment grades, if not accompanied by a rubric or scoring guide.
3) For four year programs, admission rates into graduate programs and graduation rates from those programs.
4) For two year programs, admission rates into four-year institutions and graduation rates from those programs.
5) Placement rates of graduates into appropriate career positions and starting salaries.
6) Alumni perceptions of their career responsibilities and satisfaction.
7) Student ratings of their knowledge and skills and reflections on what they have learning over the course of the program.
8) Those questions on end-of-course student evaluations forms that ask about the course rather than the instructor.
9) Student/alumni satisfaction with their learning, collected through surveys, exit interviews, or focus groups
10) Honors, awards, and scholarships earned by students and alumni.

Suskie, L. (2004). *Assessing Student Learning: A Common Sense Guide*. Anker Publishing Company: Bolton, MA

B.

1) Provide the names and signatures of all faculty members who contributed to this report and indicate their respective roles:

Faculty Members	Roles in the Assessment Process (e.g., collect data, analyze data, prepare report, review report, etc.)	Signatures
Roy Gardner	Reviewed, prepared reports	
Tetyana Kyrylova	Data collection, analysis of CS 1113	
Cliff Layton	Data collection, analysis of IT 2153, CS 3413	Retired not available
Thomas Luscomb	Data collection, analysis of CS 1113	
Peter Macpherson	Data collection, analysis of CS 3733, CS 3363, CS4504, prepared GD report. Reviewed reports	
Curtis Sparling	Data collection, analysis of CS 1113, TECH 4504, IT 4504. Administered CS MFT	

2) Reviewed by:

Titles	Names	Signatures	Date
Department Head	Roy Gardner		9/19/2014
Dean	Bruce Garrison		9/19/14