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

Fall 2015 – Spring 2016

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 2014-2015 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
SLO #3: We used the Business MFT for this assessment instead of both the Business MFT and the Exit exam.	Y	No impact of changes on the program or the budget.
SLO #3. We changed the performance standard from 75% to 70% of BIT Capstone students scoring above 50 percentile on the Business MFT as stated in the previous year's Conclusions section.	Y	No impact of changes on the program or the budget. Although the performance standard was not met, the new standard is more realistic and achievable.

PART 3

Discussion About the University Assessment Committee's 2014-2015 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."

BS Business Information Technology
The performance standard for the Business MFT (SLO #3) is higher than that set for the Computer Science MFT (SLO #1). Some verbiage added to the measure description explaining the rationale for the standards chosen might be useful for outside reviewers.

Recommendation implemented. An explanation was added under the Performance Standards of SLO #3.

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 implementing programs to solve the problems using	The Major Field Test (MFT) in Computer Science by the Educational Testing Service will be administered to all BIT Capstone students.	50% of the students who took the exam score more than 50 percentile of the national scale.	All students in IT 4504 BIT Capstone in Spring 2016. All classes are online.	9	Major Score Percentile 108S 139 27 108N 139 27 108S 129 8 108S 135 13 108S 131 10 108S 142 34 108S 134 16 108N 129 8 108N 122 1	Comparative Data: 2013-2014: 1 out of 6 students (17%) exceeding the 50.percentile. 2014-2015 0 out of 8 students (0%) exceeded 50 percentile (national median score	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)
computer programming languages.					The scale range for the score is 120-200. Assessment Indicator Results: Mean Percent Correct 1. Programming. 33 12* and Software Engineering 2. Discrete 27 14* Structure and Algorithm 3. Systems 34 29* Architecture, Operating Systems, Networking, Database *institutional percentile	149.5). 2015-2016 0 out of 9 students (0%) exceeded 50 percentile (national median score 147). The national mean scores are: 47.1, 38.2, and 37.5 in the respective categories. Comparative data indicates the Computer MFT may not be an appropriate assessment tool for this SLO.	
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 IT 2153 Network Operating Systems I course with an	All BIT students taking IT 2153. Class is online.	7	Course Grades: 90-100 2 80-89 4 70-79 0 60-69 0 <69 1 Course grades were tabulated to make the performance assumption. 6 out of 7 (86%) met the performance measure.	Comparative Data: 2013-2014: 15 out of 18 (83%) met the performance measure. 2014-2015: 8 out of 8 (100%) met the performance measure. 2015-2016: 6 out of 7 (86%) met the	Y

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)
		accuracy of 70%				performance measure. The sample size is too small to make any significant comparison.	
3. Students will demonstrate knowledge and practical technology and business oriented skills to compete in the modern business environment.	3. 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.	3. At least 70 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. The 70% level is higher than the 50% level set for the Computer MFT because BIT students usually perform better on the Business MFT since they take 24 hours of business courses.	All students in IT 4504 BIT Capstone in Spring 2016. The course is online	9	Percentile # of students 90-100 80-89 70-79 1 60-69 2 50-59 2 40-49 30-39 2 20-29 10-19 1 Below 10 1 5 out of 9 (56%) scored at or above the 50 percentile.	The sample size is too small to make a definitive conclusion. Comparison Data: 2014-2015 2 out of 8 (25%) scored at or above the 50 percentile. 2015-2016 5 out of 9 (56%) scored at or above the 50 percentile. This year's performance improved partly due to the fact that the performance standard was changed from 75% to 70%.	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)
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), the students will use the Software Development Life Cycle (SDLC) and rapid prototyping software development methodologies to investigate and describe problem solutions..	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 in Fall 2016. Class is online.	9	Course Grades: 90-100 4 80-89 4 70-79 0 60-69 0 Below 60 1 Course grades were tabulated for the assessment measures since this SLO practically covers the entire course. 8 out of 9 (89%) met the performance standard.	Comparative Data: 2013-2014 16 out of 24 (67%) met the performance standard. 2014-2015 12 out of 12 (100%) met the performance standard. 2015-2016 8 out of 9 (89%) met the performance standard.	Y

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 #1	We will change the textbook in the Programming I and Programming II courses to strengthen students' programming skills and knowledge.	Problem solving and designing algorithm are the weakest areas of BIT students as indicated in the Computer MFT results. We need to adopt a textbook which focusses on these areas.	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? 3

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

3) List the indirect measures (see rubric): course grades

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, collect, analyze data for IT 2153, CS 3413	On separate sheet
Curtis Sparling	Collect, analyze data for IT 4504, administered CS and Business MFT exams	On separate sheet

2) Reviewed by:

Titles	Names	Signatures	Date
Department Head	Roy Gardner	On separate sheet	10/26/2015
Dean	Susan Willis	On separate sheet	10/26/2015

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, and for each suggestion a clear rationale was given for its being implemented or not.	Most reviewer feedback was listed, and for most suggestions a rationale was given for their being implemented or not.	Some reviewer feedback was listed, and for some suggestions a rationale was given for their being implemented or not.	Feedback from reviewers was 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 specifically focused on student learning and based on the conclusions. The rationale for planned changes is well grounded	Most planned changes are specifically focused on student learning and based on the conclusions. The rationale for planned changes is mostly well	Some planned changes are specifically focused on student learning and based on the conclusions. The rationale for planned changes is lacking or is	No planned changes are specifically focused on student learning and based on the conclusions. There is no rationale.

and convincingly explained.	grounded and convincingly explained.	not convincingly explained.	

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