Degree Program Student Learning Report

Revised November 2019

Department of Technology and Justice Studies

BS in Business Information Technology

For 2022-2023 Academic Year

PART 1

Degree Program Mission and Student Learning Outcomes

A. 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 Professional Studies (SPS) to develop students' skills and knowledge so they can successfully perform in their professional career of choice, and to prepare them to be lifelong learners in a diverse society. This is accomplished in a positive academic climate which is supported by academic and intellectual freedom, and faculty who are dedicated to a quality educational experience. Curricula for the associate, bachelors and graduate degrees are developed by expert faculty who are dedicated to an excellence in teaching, research, and university service. The programs in the SPS	The mission of the Department of Technology and Justice Studies is to support the SPS and RSU in their mission to prepare students to achieve professional and personal goals in dynamic local and global communities.	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. Students may choose from options in Computer Network Administration or Software Development and Multimedia.

University Mission	School Mission	Department Mission	Degree Program Mission
	are dynamic, and foster student achievement of their personal and professional goals reflective of their field of study. Innovative teaching strategies are used across diverse educational platforms to facilitate student learning outcomes.		

B. Align school purposes, department purposes, and program student learning outcomes 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 SPS provides this support by providing two-year and four-year educational opportunities in business, sport management, technology, justice studies, nursing, and emergency medical services. The SPS accomplishes its mission through traditional and innovative learning opportunities including one graduate program, nine bachelor's programs and seven associate degrees. The baccalaureate degrees are taught using a large array of innovative methods.	The Department of Technology and Justice Studies 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. The department also offers a Bachelor of Science in Justice Administration and an Associate in Arts degree in Criminal Justice with options in Law/Justice and the Collegiate Officer Program (COP). As indicated, many of the programs offered by the Department of Technology and Justice Studies are available online.	1. Demonstrate competence in analyzing problems, designing, and implementing programs to solve the problems using computer programming languages. 2. Integrate the design, implementation, and administration of computer networks. 3. Demonstrate knowledge and practical technology and business-oriented skills to compete in the modern business environment. 4. Integrate the entire software life cycle including analysis, design, implementation, and maintenance.
To promote an atmosphere of academic and intellectual freedom			

University Commitments	School Purposes	Department Purposes	Student Learning Outcomes
and respect for diverse expression in an environment of physical safety that is supportive of teaching and learning.			
To provide a general liberal arts education that supports specialized academic program sand prepares students for lifelong learning and service in a diverse society.			
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.			
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

Revisit Proposed Changes Made in Previous Assessment Cycle

Revisit each instructional/assessment change proposed in Part 5 of the degree program SLR for the preceding year. Indicate whether the proposed change was implemented and comment accordingly. Any changes the department implemented for this academic year, but which were not specifically proposed in the preceding report, should also be reported and discussed here. Please note if no changes were either proposed or implemented or this academic year.

Proposed Change	Implemented? (Y/N)	Comments
Continue revise content of Programming I and II (SLO 1.)	Y	Transition Complete.

PART 3

Response to University Assessment Committee Peer Review

The University Assessment Committee provides written feedback on departmental assessment plans through a regular peer review process. This faculty-led oversight is integral to RSU's commitment to the continuous improvement of student learning and institutional effectiveness. UAC recommendations are not compulsory and departments may implement them at their discretion. Nevertheless, respond below to each UAC recommendations from last year's peer review report. Indicate whether the recommendation was implemented and comment accordingly. Please indicate either if the UAC had no recommendations or if the program was not subject to review in the previous cycle.

Peer Review Feedback	Implemented (Y/N)	Comments
1. Good job on part 2 and closing the loop.	Y	We will continue to review Part 5 of the previous year's report and comment on in part 2 of the current year's report.
2. Reformat SLOs with tighter writing – start with Bloom's verb.	Y	Removed "Students will" from the SLO's in the previous year. Replaced with more concise descriptions in Performance Standard of SLO 3, SLO 4, and Performance Measure of SLO 4
3. Use part 5 every year to demonstrate plans or contemplation of plans.	Y	Part 5 filled out for next year's changes and will be reviewed in part 2 of the next year's report.

PART 4
Evidence of Student Learning

Evidence and analyze student progress for each of the student learning outcomes (same as listed in Part I B above) for the degree program. See the *Appendix* for a detailed description of each component. Note: The table below is for the first program learning outcome. Copy the table and insert it below for each additional outcome. SLO numbers should be updated accordingly.

A. Student Learning Outcome					
SLO #1: Demonstrate competence in analyzing problems, designing, and implementing programs to solve the problems using computer programming languages.					
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**	**G. Standard Met (Y/N)**
Program Assessment Test (PAT) in CS 2323	60% of the students who took the exam score higher than 60%.	All BIT majors in AS in CS 2323. All classes were online.	Fall: 4/6 (online) Fall: 0/1 (on ground) Spring: 9/11 (online	Range: 9-10; 8.0-8.9; 7.0-7.9; 6.0-6.9; 5.0-5.9; 0-5.0 2023 online Spring: 0; 0; 3; 2; 1; 3 2022 online Fall: 0; 0; 2; 1; 1; 0	Y

H. Conclusions

Previous Results (2022 Spring and Earlier data):

Range	2023 online Spring	2022 online Fall	2022 online Spring	2021 online Fall	2021 in class Fall	2020 Online Spring	2019 Online Fall	2019 online Spring
9-10	0	0	0	0	0	0	0	1

A. Student Learning Outcome												
SLO #1: Demonstrate competence in analyzing problems, designing, and implementing programs to solve the problems using computer programming languages.												
B. Assessment Measure		**C. Performance Standard**		**D. Sampling Method**		**E. Sample Size (n)**		**F. Results**				**G. Standard Met (Y/N)**
8.0-8.9	0	0	1	0	0	2	3	0				
7.0-7.9	3	2	1	1	0	1	1	1				
6.0-6.9	2	1	4	3	0	0	2	3				
5.0-5.9	1	1	2	1	1	4	0	3				
0-5.0	3	0	0	1	0	1	1	1				
8/13 or 61.5% students successfully scored 60% or better which does meet the performance standard.												

A. Student Learning Outcome								
SLO #2: Integrate the design, implementation and administration of computer networks.								
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**				**G. Standard Met (Y/N)**
In-depth hands-on labs (assessment) demonstrating ability to integrate	At least 70% percent of students will demonstrate their ability to configure	All BIT students taking IT 2153 in Fall/Spring. All classes online.	27 Fall 30 Spring	Post Course Assessment / Spring		Post Course Assessment / Fall		Y
				90-100	22	90-100	22	

A. Student Learning Outcome						
SLO #2: Integrate the design, implementation and administration of computer networks.						
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**		**G. Standard Met (Y/N)**
the design, implement, and administer local area networks in accordance with the 70-741 networking certification exam.	networking with Windows Server 2016 via Post Course Assessment (labs) by achieving a 70%.			80-89.9: 4 70-79.9: 1 60-69.9: 0 < 60: 3 Mean: 85.5 Median: 92.46	80-89.9: 3 70-79.9: 1 60-69.9: 0 < 60: 1 Mean: 90.87 Median: 92.46	

H. Conclusions

57 students took Post Course Assessment, of which, 53 scored above 70% on the Post-Course Assessment or 93% of IT 2153 students. Students were able to design, implement, and administer local area networks successfully in accordance with the standard.

Comparative Data for the past five years:

2020-2021:

92% of IT 2153 learners met the performance measure by achieving at least 70% on the Post-Course Assessment.

2021-2022:

93% of IT 2153 learners met the performance measure by achieving at least 70% on the Post-Course Assessment.

2022-2023:

93% of IT 2153 learners met the performance measure by achieving at least 70% on the Post-Course Assessment.

A. Student Learning Outcome					
SLO #3: Demonstrate knowledge and practical technology and business-oriented skills to compete in the modern business environment.					
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**	**G. Standard Met (Y/N)**
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.	At least 70 percent of the students will score 50th percentile or above in the national individual students total score distribution of the Business MFT.	All students taking IT 4504 Capstone Course. Class is online.	11	Percentile # of students 90-100 0 80-89 0 70-79 2 60-69 2 50-59 3 40-49 1 30-39 1 20-29 1 10-19 1 Below 10 0 7 out of 11 (64%) scored at or above the 50th percentile.	N

H. Conclusions

This year the standard was missed by one student. The latest national percentile data available is for 2021 which we used above, even though the exam was taken in April 2022. However, the national scores and percentile figures do not change much from year to year.

Comparison Data for the past five years:

2017-2018
6 out of 9 (67%) scored at or above the 50th percentile.

2018-2019
3 out of 7 (43%) scored at or above the 50th percentile.

2019-2020
5 out of 9 (56%) scored at or above the 50th percentile.

2020-2021
12 out of 16 (75%) scored at or above the 50th percentile.

A. Student Learning Outcome					
SLO #3: Demonstrate knowledge and practical technology and business-oriented skills to compete in the modern business environment.					
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**	**G. Standard Met (Y/N)**
2022-2023 7 out of 11 (64%) scored at or above the 50th percentile.					

A. Student Learning Outcome					
SLO #4: Integrate the entire software life cycle including analysis, design, implementation, and maintenance.					
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**	**G. Standard Met (Y/N)**
Comprehensive Final Exam in CS 3413 Systems Analysis which assess the students' ability to analyze problems, design complete software solutions and implementation.	At least 70% of students will score 70% or higher on a comprehensive final exam.	All BIT students taking CS 3413 in Fall 2022. Class is online.	8	2022 online Fall Range 90-100 1 80-89 4 70-79 2 60-69 1 0-59 0 Final exam scores were tabulated for the assessment	Y

A. Student Learning Outcome					
SLO #4: Integrate the entire software life cycle including analysis, design, implementation, and maintenance.					
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**	**G. Standard Met (Y/N)**
				measures since this SLO practically covers the entire course.	
H. Conclusions					

A. Student Learning Outcome					
SLO #4: Integrate the entire software life cycle including analysis, design, implementation, and maintenance.					
B. Assessment Measure	**C. Performance Standard**	**D. Sampling Method**	**E. Sample Size (n)**	**F. Results**	**G. Standard Met (Y/N)**
1 of 7 meet this standard.					

PART 5

Proposed Instructional or Assessment Changes

Learning outcomes assessment can generate actionable evidence of student performance that can be used to improve student success and institutional effectiveness. Knowledge of student strengths and weakness gained through assessment can inform faculty efforts to improve

course instruction and program curriculum. Below discuss potential changes the department is considering which are aimed at improving student learning or the assessment process. Indicate which student learning outcome(s) will be affected and provide a rationale for each proposed change. These proposals will be revisited in next assessment cycle.

Proposed Change	Applicable Learning Outcomes	Rationale and Impact
Adopt a new textbook for Programming I and Programming II.	SLO #1	Complete

PART 6
Summary of Assessment Measures

A. How many different assessment measures were used? 4

B. List the direct measures (see appendix): Programming Assessment Test (PAT), Business MFT, post-test, final exam grades.

C. List the indirect measures (see appendix):

PART 7
Faculty Participation and Signatures

A. Provide the names and signatures of all full time and adjunct faculty who contributed to this report.

Faculty Name	Assessment Role	Signature
Dan Frick	Prepare report, collect, analyze data for IT 2153	
Peter Macpherson	Collect, analyze data for CS 2323, CS 3413	

Tetyana Krylova	Collect, analyze data for IT 4504, administered Business MFT exams	

B. Reviewed by:

Titles	Name	Signature	Date
Department Head	R. Curtis Sparling	R. Curtis Sparling	5/25/23
Dean	Susan Willis	Susan Willis	6-5-23

Appendix

Student Learning Outcome

Student learning outcomes are the observable or measurable results that are expected of a student following a learning experience. Learning outcomes may address knowledge, skills, attitudes, or values that provide evidence that learning has occurred. They can apply to a specific course, a program of study, or an institution. Outcomes should be worded in language that clearly implies a measurable behavior or quality of student work. Outcomes should also include Bloom's action verbs appropriate to the skill level of learning expected of students.

Examples:

Students will be able to apply principles of evidence-based medicine to determine clinical diagnoses and implement acceptable treatment modalities.

Students will be able to articulate cultural and socioeconomic differences and the significance of these differences for instructional planning.

Assessment Measure

An assessment measure is a tool or instrument used to gather evidence of student progress toward an established learning outcome. Every program learning outcome should have at least one appropriate assessment measure. Learning outcomes are frequently complex, however, and may require multiple measures to accurately assess student performance. Assessment plans should try to incorporate a combination of direct and indirect assessment measures. Direct provide concrete evidence of whether a student has command of a specific subject or content area, can perform a certain task, exhibits a particular skill, demonstrates a certain quality in their work, or holds a particular value. Because direct measures tap into actual student learning, it is often viewed as the preferred measure type. Indirect measures assess opinions or thoughts about the extent of a student's knowledge, skills, or attitudes. They reveal characteristics associated with learning, but they only imply that learning has occurred. Both types of measures can provide useful insight into student learning and experiences in a program. Each also has unique advantages and disadvantages in terms of the type of data and information it can provide. Examples of common direct and indirect measures are listed below.

Direct Measures

- Comprehensive exams
- Class assignments
- Juried review of performances and exhibitions
- Internship or clinical evaluations
- Portfolio evaluation
- Pre/post exams
- Third-party exams such as field tests, certification exams, or licensure exams
- Senior thesis or capstone projects

Indirect Measures

- Graduate exit interviews
- Focus group responses
- Job placement statistics
- Graduate school placement statistics
- Graduation and retention rates
- Student and alumni surveys that assess perceptions of the program
- Employer surveys that assess perceptions of graduates
- Honors and awards earned by students and alumni.

Performance Standard
A performance standard is a clearly-defined benchmark that establishes the minimally-acceptable level of performance expected of students for a particular measure.

Examples:
At least 70% of students will score 70% or higher on a comprehensive final exam.
At least 75% of students will earn score a "Proficient" or higher rating on the Communicate Effectively rubric.

Sampling Method
Sampling method describes the methodology used for selecting the students that were assessed for a given measure. In some cases, such as most course-embedded measures, it is possible to assess all active enrolled students. In other cases, however, it is not feasible to measure the population of all potential students. In these cases, it is important that a well-designed sampling scheme be used to ensure the sample of students measured is an unbiased representation of the overall population. Where multiple instructors teach a particular course, care should be taken to assess students across all instructors, including adjuncts.

Examples:
All students enrolled in BIOL 4801 Biology Research Methods II
All majors graduating in the 2016-17 academic year.

Sample Size
Sample size is the number of students from which evidence of student learning was obtained for a given assessment measure.

Results
Results are an analytical summary of the findings arising from the assessment of student performance for a particular assessment measure. Typical presentation includes descriptive statistics (mean, median, range) and score frequency distributions.

Standard Met?
This is a simple yes/no response that indicates whether the observed level of student performance for a particular measure meets or exceeds the established standard. An N/A may be used where circumstances prevented the department from accurately assessing a measure.

Conclusion
The conclusion is a reflective summary and determination of the assessment results obtained for a specific learning outcome. Questions to consider in this section include the following:

- Does the assessment evidence indicate the learning outcome is being satisfactorily met?
- Where multiple measures are used for a single outcome, do the results present a consistent or contradictory pattern?
- What are the most valuable insights gained from the assessment results?
- What strengths and weaknesses in student learning do the results indicate?
- What implications are there for enhancing teaching and learning?
- How can the assessment process be improved?