Cybersecurity Annual Assessment 2018-2019

Annual Assessment 18-19

Cybersecurity

Program Profile

Program Mission Statement
Please insert your program mission statement here

William Woods University's business programs provide an execptional learning environment that empowers students to succeed as they continue their education or pursue professional endeavors.

Program Data

Delivery Method

Traditional On Campus
Online (selected)
Hybrid

Students Majors 2017-18	Student Majors 2018-19
0	5

Student Demographics
What are the program goals for student retention, persistence and degree completion? What do the persistence numbers mean to the faculty in the program? Are your persistence numbers what you expected? If not, how could the numbers be improved? What is the optimal enrollment for the program?

This is a new program beginning in fall, 2018. As we enroll students and develop data points on initial retention, persistence and degree completion percentages, we will be better able to identify trends and establish expectations.

Is the Program Externally Accredited

Yes
No (selected)

External Accreditation
Name the Accrediting Agency or entity including the last review/approval. Is there an accrediting body for the field of study? If yes, what is the name of the group. Is the program seeking accreditation?If no, why?

This is a new program and until it is established and has graduates we will not seek external accrediation. The program is designed to meet the NSA accreditation requirements and when the program is eligible, this distinction will be sought.

Marketing Materials
Please reflect on the current marketing materials used for the program. Detail what documents you are reviewing and attach a screenshot of any webpages or materials that you cannot include as a document. What changes, if any should be

made to the material? Are there recommendations for how or where to market the program?

We have developed a fact sheet, webpages have been created and we provided information for the Marketing department to develop a flyer (draft attached).

The program needs an increase in awareness in the St. Louis and Kansas City areas which are hubs for cybersecurity in the region. Additionally, awareness to small businesses, local/county government agencies in the rural areas of the state of Missouri would be beneficial.

Marketing Material

Cyber_marketing_materials.docx
Cyber_Flyer.pdf
03110019_309_Cybersecurity_Program_Sheet_proof.pdf

Program Assessment

Standard/Outcome

Identifier	Description
WWU2016.1	Major Field Competence: Students will demonstrate excellence in an academic or professional discipline, and engage in the process of academic discovery.
WWU2016.2	Ethics: Students will exhibit values and behaviors that address self- respect and respect for others that will enable success and participation in the larger society.
WWU2016.3	Self-Liberation: Students will develop an honest understanding and appreciation of themselves and others resulting in an ability to make individual decisions.
WWU2016.4	Lifelong Education: Students will possess an intellectual curiosity and desire for continual learning both within and beyond formal education in preparation for participation in a global society.

Program Standards/Outcomes

Identifier	Description
CSS.1	Discuss the impact of cybersecurity on society and organizations.
CSS.2	Develop presentations and documentation to communicate technical content.
CSS.3	Describe the process of designing a computer system.
CSS.4	Design and implement cybersecurity solutions based on a set of requirements.
CSS.5	Identify and compare computer networks and architectures.
CSS.6	Communicate computer security principles and their application.

General Education Alignment to Program
How do the General Education criteria align with the Program Objectives? What courses within your program build upon skills learned in general education courses (please list the program course and the general education criteria). The General Education clusters are: Critical Analysis, Creative Expression, Quantitative Inquiry, and Society & the Individual. See attached for more detailed breakdown.

The core cousres in this major do not conatin general education components.

GE_Cluster_Descriptions_FINAL_Version_Approved.docx

Curriculum Map

A - Assessed
R - Reinforced
I - Introduced
M - Master

Cybersecurity Curriculum Map

	CMJ 385	CMJ 440	CMJ 447	CSS 210	CSS 300	CSS 310	CSS 324	CSS 325	CSS 401	CSS 410	CSS 420	CSS 440
CSS.1 Discuss the impact of cybersecurity on society and organizations.			I	I	R	I				R		
CSS.2 Develop presentations and documentation to communicate technical content.	I		R	I, R	R	R	R	R	I			
CSS.3 Describe the process of designing a computer system.					R		R		R		R, M	R
CSS.4 Design and implement cybersecurity solutions based on a set of requirements.	I	I	I	I	R	I	I	I	R	R	R, M	R, M
CSS.5 Identify and compare computer networks and architectures.			I		R		R	R		R	R, M	
CSS.6 Communicate computer security principles and their application.	I	I	R	I, R	R	R		R	R		R, M	R, M

	CSS 451	CSS 452	CSS 490	MIS 100	MIS 225	MIS 250	MIS 350	MIS 425	MIS 450
CSS.1 Discuss the impact of cybersecurity on society and organizations.	R	R	A, M	I					
CSS.2 Develop presentations and documentation to communicate technical content.	R	R	M, A	I	I		R		
CSS.3 Describe the process of designing a computer system.	R	R	M, A			I			I
CSS.4 Design and implement cybersecurity solutions based on a set of requirements.	R	R	M, A						
CSS.5 Identify and compare computer networks and architectures.	R	R	M, A			I		I	I
CSS.6 Communicate computer security principles and their application.	R	R	M, A		I	I	I		I

Changes to Curriculum
Are there any changes made to the curriculum map for this academic year? If so, please describe the program changes made along with the rationale for why and the impact the change should have on student learning?

This is a new program with first courses beginning fall 1, 2018.

Assessment Findings

Assessment Findings for the Assessment Measure level for Cybersecurity Curriculum Map

CSS.1 Discuss the impact of cybersecurity on society and organizations.				
Assessment Measures				

CSS 490				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Research Paper	Has the criterion The student will write a 20-25 page final research paper based on an area within the cybersecurity domain. The student will present a 15-20 minute oral presentation to a faculty panel. The final research paper and oral presentation will be assessed at 75% or better as graded by a faculty panel. been met yet?			

CSS.2 Develop presentations and documentation to communicate technical content.				
Assessment Measures				

CSS 490				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Research Paper	Has the criterion The student will write a 20-25 page final research paper based on an area within the cybersecurity domain. The student will present a 15-20 minute oral presentation to a faculty panel. The final research paper and oral presentation will be assessed at 75% or better as graded by a faculty panel. been met yet?			

CSS.3 Describe the process of designing a computer system.				
Assessment Measures				

CSS 490				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Case Study	Has the criterion Written User-Case Scenario. The student will be given a User-Case Scenario from which a series of multiple-choice or short answer questions will be answered. The answers will be assessed at 75% or better by a faculty panel. been met yet?			

CSS.4 Design and implement cybersecurity solutions based on a set of requirements.				
Assessment Measures				

CSS 490				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Case Study	Has the criterion Written User-Case Scenario. The student will be given a User-Case Scenario from which a series of multiple-choice or short answer questions will be answered. The answers will be assessed at 75% or better by a faculty panel. been met yet?			

CSS.5 Identify and compare computer networks and architectures.				
Assessment Measures				

CSS 490				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Case Study	Has the criterion Written User-Case Scenario. The student will be given a User-Case Scenario from which a series of multiple-choice or short answer			

	questions will be answered. The answers will be assessed at 75% or better by a faculty panel. been met yet?			

CSS.6 Communicate computer security principles and their application.

Assessment Measures

CSS 490				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Case Study	Has the criterion Written User-Case Scenario. The student will be given a User-Case Scenario from which a series of multiple-choice or short answer questions will be answered. The answers will be assessed at 75% or better by a faculty panel. been met yet?			

Analysis of the Assessment Process
Describe your assessment process; clearly articulate how the program is using course work and or assessment day activities for program assessment. Note any changes that occurred to that process since the previous year. Discuss what activities were successful at assessment and which ones were not as helpful and why. Please include who met to discuss the changes (unless you are a program of one person) and when you met. – Include a discussion on the process for collection and analysis of program data.

Continuing refinement of the assessment process has been conducted during the current year. In discussions with the Cybersecurity Program Manager, we will be adding assessment assignments (case studies) in courses such as CSS 401-Encrpytion Techniques and CSS 410-Social Engineering. The PM is also working to create an assessment examination that will be used in CSS 210-Introducation to Cybersecurity to obtain a baseline of knowledge among students. The test will be given again during the capstone course to gauge knowledge learned throughout the program. The capstone course will also include a capstone research paper as a culminating program assignment.

Improvement Narrative List

Assessment Findings for the Assessment Measure level
No improvement narratives have been added.

Program Activities

Student Performance Review
Describe the department assessment day activities if not already described previously. Please articulate the nature of the assessments are conducted, explain the process for assessment that happens on these two days. Include the schedule of assessment day for your program. What does the data and outcomes tell you? What changes will you make as a result of the data? What areas are successful for the program?

This program is only offered in an online format, student performance days are not applicable.

Student Performance Review Schedule
Upload the program schedule for students during Performance Reviews.

Senior Showcase
Describe program Senior Showcase activities if not detailed previously in the report? What benefit does the program gain from the activities? What if any assessment of students happens during this event? What changes if any will occur due to what is learned by faculty on Senior Showcase?

This is an online program, senior showcase is not applicable.

Assessment Rubrics
Upload rubrics used for Senior Showcase or Student Performance Reviews for student assessment.

Service Learning
Does the Program include projects/ course content that uses the philosophy of service learning?
Yes
No (selected)

Service Learning Component
If so, how is service learning infused in the coursework within your department? Is service or community engagement in the program mission? Describe the Service Learning Activities that your students and department engaged in this past year. How did the activities improve student learning? How did the activities benefit the community?

N/A

LEAD Events
Highlight lead events sponsored by program faculty that are connected to program or general education objectives for the past academic year. Include a total number of lead events program faculty sponsored.

This is an online program, LEAD events are not currently conducted by cyber faculty. Other faculty how may teach in the program have not offered LEAD events that would be specific to this program.

Student Accomplishments
Highlight special examples of student successes in the field (academic: mentor-mentee, conference presentations, competitive internship, journal acceptance; extra-curricular: horse show championship, art exhibit). This is for any accomplishments that a student achieved outside of course work or the normal expectations of student success.

This is a new program with 5 students currently seeking the degree. This is also an online program so opportunities for mentor-mentee, research, etc., are limited.

Alumni Accomplishments

Please highlight special examples of any successes of recent graduated alumni (acceptance or graduation graduate school, employment or professional milestones. Include recent graduates.

To date, no students have graduated from the program.

Faculty Accomplishments

Highlight special examples of faculty success in the profession/field/content area. This is for any accomplishment of a faculty activity/research/professional nature.

The Program Manager, Paul Frazier has been interviewed by Fox News and quoted by the New York Post on issues related to cybersecurity. He has also been interviewed by Security Baron and was part of a TRTWorld Roundtable discussion on the threat of cyber attacks.

Assessment Rubric

	3.000 **Exceeds**	2.000 **Meets**	1.000 **Falls Below Expectations**	**N/A**
Mission Statement Clearly Articulated weight: 1.000	The mission statement for the program is insightful and forward thinking. It aligns with the University Mission and learning objectives showing a clear alignment between the University and the program.	The mission statement for the program clearly articulated and aligned with the University mission.	✔ The mission statement is minimal at best.	N/A
Comment:	The mission statement is not specific the program and actually names a different program than the one discussed. It is a cybersecurity program, not the business program.			
Reflection on Retention weight: 1.000	The program provides a detailed description on the retention numbers. The program provides new ideas on how to improve retention of their program students or articulates what they are currently doing to keep students in their program.	The program provides a basic reflection on the retention data provided.	The program does not reflect on retention data in a detailed way.	✔ N/A
Comment:	As a new program it is hard to have any reflection on this section.			
Defines External Accreditation Standards weight: 1.000	The program provides a detailed explanation of the accreditation organizations within the field along with all the timeline and supplemental information required for accreditation.	The program provides a basic explanation of the accreditation organizations in the field.	The program fails to provide any accreditation information.	✔ N/A
Comment:				
General Education alignment clearly explained weight: 1.000	The program provides a detailed explanation of the General Education criterial and how the basic skills learned are expanded upon in the program. Details include but are not limited to: specific courses, or activities that stretch the knowledge of the specific areas.	The program provides a basic explanation of the General Education curriculum and how the skills learned are expanded in program courses.	✔ The program provides a minimal explanation of the General Education curriculum and how the skills learned are expanded in program courses.	N/A
Comment:	This is not asking if any GE courses are part of the program, but it is asking how the requirements for General Education are used within the program. The foundation skills that students come in with, the program expands them in what ways.			
Curriculum Map alignment weight: 1.000	The curriculum map is detailed and complete.	The curriculum map is complete	✔ The curriculum map is not complete	N/A
Comment:	there is very little in the curriculum map. I am unsure if it is complete or not.			
Assessment of Objectives weight: 1.000	Assessment of objectives are spread out across the curriculum with a variety of assessment measures and each program objective is assessed a minimum of twice a year.	Each objective is assessed a minimum of 2 times a year or an assessment rotation is explained so that all objectives are assessed. The assessments are not concentrated in one class.	✔ The assessment map is not complete or much of the assessment happens in only one course. Not all objectives are assessed annually, nor is a plan provided on assessment.	N/A
Comment:	The assessment is all in one course. There is not any assessment until the last year of the program. By that time it is too late to fix any issues that a student might have in their program development.			
Data Driven Decision-making is explained weight: 1.000	Curricular and assessment changes are articulated and validated through data based decisions. Faculty discuss the data that lead to curricular decisions being made.	Curricular and assessment decisions are made based on data provided in assessment, but detailed alignment is not provided as justification for the change.	Changes are proposed and brought forth with little explanation on the data included in the decision, if data was included in the decision.	✔ N/A
Comment:				

Documentation provided on assessment findings weight: 1.000	✓ The program uploads all rubric and support information to support the claims in the assessment findings along with detailed instructions on the assessment process and data analysis.	✓ The program uploads all rubric and support information to support the claims in assessment findings.	✓ The program did not upload the data to support assessment claims in the assessment findings.	✓ N/A
Comment:	All assessment is in the final course for the program and the program is too new to have any assessment data provided, so there is nothing to review. There are plans to add more to the assessment plan by including assessments in two 400 level and one 200 level course.			
Analysis of Assessment is complete weight: 1.000	✓ The program completed assessment findings for each component identified, and provided a comprehensive summary of each assessment measure identified in the report.	✓ The program completed the assessment findings for each component and provided a summary for each assessment measure.	✓ The program did not provide a completed assessment findings for each component, nor did they complete the summary for each measure.	✓ N/A
Comment:				
Improvement narratives are selected with intentionality weight: 1.000	✓ The program identified Improvement Narratives that appear to move the program forward and see the bigger picture than only the specific program curriculum options	✓ The program used the provided Improvement Narratives and selected options that made sense to the objectives and issues within the assessment.	✓ The program did not use any improvement narratives, or the ones chosen are not aligned with assessment results.	✓ N/A
Comment:				
Student Performance Review weight: 1.000	✓ The program described and provided a detailed account of Student performance Review activities. Data evidence provided and detailed.	✓ The program provided the schedule and a brief description of Student Performance Review with data of the results.	✓ The program did not provide complete explanation on Student Performance Review nor did they provide data results.	✓ N/A
Comment:	is an online program and at the current time, there is no expectation that online programs participate in SPR.			
Senior Showcase weight: 1.000	✓ The program had all senior students participate in Senior Showcase and provided a detailed explanation of their expectation and the presentations presented.	✓ The program described the Senior showcase activities and provided some evidence of what was presented.	✓ Little to no content of Senior showcase was provided.	✓ N/A
Comment:				
Co Curricular activities weight: 1.000	✓ The program detailed the activities of LEAD and other co-curricular programing that was provided throughout the year. They provided numerous events for students.	✓ The program provided a listing of LEAD events and activities provided.	✓ The program provided little to no description of the Co-curricular activities provided throughout the year.	✓ N/A
Comment:				
Faculty, alumni, and Student accomplishments weight: 1.000	✓ The program provided detail updates on successes on Students, Alumni and Faculty with added information explaining the kinds of success that were experienced.	✓ The program provided a listing of information on Students, Alumni, and faculty accomplishments.	✓ The program provided little to no data on students, alumni, faculty accomplishments.	✓ N/A
Comment:				