CoIS Assessment: Reporting Units

School of Computer Science and Mathematics 18sept18

Program (CoIS) - Computer Networking BS

Mission Statement: We equip our graduates for success through emphasis on rigorous programs, hands-on experiences, and interaction with highly-qualified faculty members who are centered on student success.
Assessment Contact: Dr. Evan Schemm

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Analyze Needs - The students will be able to analyze the needs of a user, design a computer network system to satisfy those needs, and install, modify and maintain the network environment relative to both hardware and software. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year End faculty evaluation of projects and presentation aggregate score of 4.25 (1 to 5). Includes 1 non-performing team. (05/30/2018)	**Use of Result:** Evaluate again after next years projects class. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End aggregate course data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 163 [Troubleshooting and Repair of Personal Computers], CSCI 281 [Introduction to UNIX and Networking], CSCI 412 [UNIX Network Administration], and CSCI 422 [UNIX Network Administration] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 248 [Network Operating Systems I], CSCI 348 [Network Operating Systems II], and CSCI 412 [UNIX Network Administration] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Evaluate again during next program review. (05/29/2018)
Design - The students will be able to design, install, and implement	**Direct - Capstone Project - including undergraduate research -** Year End	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes	**Use of Result:** Evaluate again after

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
appropriate security, intrusion detection, and troubleshooting techniques and methodologies in a communication network. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	Year end faculty evaluation of projects and presentation has an aggregate score of 3.75 (1 to 5). Includes 1 non-performing team (05/30/2018)	next projects class. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 163 [Troubleshooting and Repair of Personal Computers], CSCI 281 [Introduction to UNIX and Networking], CSCI 412 [UNIX Network Administration], and CSCI 422 [UNIX Network Administration] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 248 [Network Operating Systems I], CSCI 348 [Network Operating Systems II], CSCI 412 [UNIX Network Administration], and CSCI 422 [Network and Computer Security] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Evaluate again during next program review. (05/29/2018)
Security and Best Practices - The students will be able to evaluate changes in technology, security, and user needs based on accepted and updated best practices in the field. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year end evaluation of Projects and presentations has an aggregate score of 3.38 (1 to 5). Includes 1 non-performing team (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 281 [Introduction to UNIX and Networking], CSCI 412 [UNIX Network Administration], and CSCI 422 [UNIX Network Administration] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes	**Use of Result:** Evaluate again during next program review.

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
		Aggregate grade data from CSCI 248 [Network Operating Systems I], CSCI 348 [Network Operating Systems II], CSCI 412 [UNIX Network Administration], and CSCI 422 [Network and Computer Security] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	(05/29/2018)
Communications - The students will be able to communicate technical information relative to problems and solutions to both other professionals in the field as well as involved non-technical persons. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations. **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year end evaluation of projects and presentations has aggregate score of 3.5 (1 to 5). Includes one non-performing team. (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 163 [Troubleshooting and Repair of Personal Computers], and CSCI 412 [UNIX Network Administration] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 248 [Network Operating Systems I], CSCI 348 [Network Operating Systems II], and CSCI 412 [UNIX Network Administration] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Evaluate again during next program review. (05/29/2018)

CoIS Assessment: Reporting Units

School of Computer Science and Mathematics 18sept18

Program (CoIS) - Computer Science AS

Assessment Contact: Dr. Christopher Smith
Mission Statement: We equip our graduates for success through emphasis on rigorous programs, hands-on experiences, and interaction with highly-qualified faculty members who are centered on student success.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Design - The Students will be able to design and develop computer programs to meet specifications given to them. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.0 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year End evaluation of projects and presentations has aggregate score of 3.14 (1 to 5). Includes 3 non-performing teams. (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], and CSCI 121 [Principles of Programming] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 201 [Data Structures and	**Use of Result:** Evaluate again during next program review. (05/29/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
		Algorithms], and CSCI 291 [Computer Science Project] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	
Implementation - The students will be able to assist in analyzing, implementing, and integrating appropriate solutions for networking, database, and coding to applications and systems frameworks. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.0 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** No Year End evaluation of projects and presentations has aggregate score of 2.86 (1 to 5). Includes 3 non-performing teams. Three teams of 7 with non-performance (project not completed), drops us below target. (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], and CSCI 121 [Principles of Programming] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 201 [Data Structures and Algorithms], and CSCI 291 [Computer Science Project] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Evaluation again during next program review. (05/29/2018)
Best Practices - The students will be able to use current software technologies and accepted best	**Direct - Capstone Project - including undergraduate research -** Year End Project Review	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year end evaluation of projects and presentations has	**Use of Result:** Evaluate again after next years projects. (05/30/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
practices in software and systems design to help solve business and industrial problems. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Criteria Target:** Score of 3.0 or higher for at least 70% of students **Direct - Exam/Quiz - within the course -** Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	aggregate score of 3.07 (1 to 5). Includes 3 non-performing teams. (05/30/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], and CSCI 121 [Principles of Programming] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
Communication - The students will be able to communicate technical information relative to problems and solutions to professionals in the field. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations. **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.0 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** No Year End evaluation of projects and presentations has aggregate score of 2.79 (1 to 5). Includes 3 non-performing teams. Three non-performing teams (projects not completed) of 7 drops us below threshold. (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], and CSCI 121 [Principles of Programming] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
			from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)

CoIS Assessment: Reporting Units

School of Computer Science and Mathematics 18sept18

Program (CoIS) - Computer Science BS

Assessment Contact: Dr. Christopher Smith
Mission Statement: We equip our graduates for success through emphasis on rigorous programs, hands-on experiences, and interaction with highly-qualified faculty members who are centered on student success.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Analyze Needs - The students will be able to analyze the needs of a user, design a computer software system to satisfy those needs, and write and debug computer programs needed for that system. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year end evaluation of projects and presentations has aggregate score of 4.33 (1 to 5). (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], CSCI 121 [Principles of Programming], CSCI 321 [Computer Graphics]], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 201 [Data Structures and	**Use of Result:** Review goal again during next program review. (05/29/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
		Algorithms], CSCI 415 [Computer Organization and Architecture], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	
Implement - The Students will be able to evaluate and implement solutions to programming problems using appropriate algorithms, programming languages, user interfaces, and utilities. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year End evaluation of projects and presentations has aggregate score of 4.00 (1 to 5). (05/30/2018)	**Use of Result:** Evaluate again after next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], CSCI 121 [Principles of Programming], CSCI 321 [Computer Graphics]], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 201 [Data Structures and Algorithms], CSCI 415 [Computer Organization and Architecture], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Review goal again during next program review. (05/29/2018)
Best Practices - The students will be able to evaluate changes in	**Direct - Capstone Project - including undergraduate research -** Year End	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes	**Use of Result:** Evaluate again after

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
technology, software, and user needs based on accepted and updated best practices in the field. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	Year end evaluation of projects and presentations has aggregate score of 3.33 (1 to 5). (05/30/2018)	next years projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data **Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], CSCI 121 [Principles of Programming], CSCI 321 [Computer Graphics]], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	**Use of Result:** Data from CSCI 121 has prompted investigations into how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], CSCI 415 [Computer Organization and Architecture], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Evaluate goal again during next program review. (05/29/2018)
Communications - The students will be able to communicate technical information relative to problems and solutions to both other professionals in the field as well as involved non-technical persons. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 05/01/2018 **Goal Level (Bloom/Webb):** Mid-	**Direct - Capstone Project - including undergraduate research -** Year End Project Review **Criteria Target:** Score of 3.5 or higher for at least 70% of students	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Year end evaluation of projects and presentations has aggregate score of 3.5. This exceeds the Sophomore score of 2.79, suggesting that ENGL 306 has been useful for our students. This is a very limited dataset (3 projects) though, and more years of data is needed. (05/30/2018)	**Use of Result:** Evaluate again after next projects. (05/30/2018)
	Direct - Exam/Quiz - within the course - Year End Aggregate Course Data	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes	**Use of Result:** Data from CSCI 121 has prompted investigations into

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations. **Revision Notes:** We revised all program goals in 2018 to make them more measurable and applicable.	**Criteria Target:** 70% of students earn at least 70% of the possible points on objective related exam questions, lab tasks, or homework assignments. **Schedule/Notes:** Courses used each year may vary due to course offering patterns. The specific courses used will be indicated for each set of reporting data.	Aggregate grade data from CSCI 103 [Survey of Computer Science], CSCI 121 [Principles of Programming], CSCI 321 [Computer Graphics]], and CSCI 371 [Multi-Platform Application Development] shows students successfully completing these classes were able to meet this goal at least 70% of the time. [Retroactively added based on prior data to new department objectives for 2018] (07/30/2018)	how to increase student use of office hours, as well as methods that might be used to increase student attempts of homework assignment. Failure in the class is almost universally attributable to turning in less than 33% of assignments. Result added retroactively to new 2018 program objectives. Data from 2016-2017 had already been used for 2017-2018 classes, as well as ongoing curricular update efforts. (07/30/2018)
		Finding Reporting Year: 2017-2018 **Goal met:** Yes Aggregate grade data from CSCI 103 [Survey of Computer Science], CSCI 291 [Computer Science Project], and CSCI 415 [Computer Organization and Architecture] shows students successfully completing these classes were able to meet this goal at least 70% of the time. (05/29/2018)	**Use of Result:** Evaluate goal again during next program review. (05/29/2018)

CoIS Assessment: Reporting Units

School of Computer Science and Mathematics 18sept18

Program (CoIS) - Mathematics BS

Assessment Contact: Dr. Robert Kipka
Mission Statement: We equip our graduates for success through emphasis on rigorous programs, hands-on experiences, and interaction with highly-qualified faculty members who are centered on student success.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
Communication - Students will be able to develop and clearly express mathematical concepts in written and oral communication. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 01/01/2018 **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations.	**Direct - Presentation, Performance -** Students in MATH 401 Mathematical Modeling give an oral presentation about the results of a modeling project to their peers. The percentage of students earning 70% or more of the points is recorded. **Criteria Target:** 70% of students earn 70% or more. **Schedule/Notes:** Alternate year course. This course was chosen because it is a senior level course, taken predominantly by majors. This is an example of course embedded oral communication. **High Impact Program Practices 1:** Collaborative Assignments, Projects	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes At the end of spring semester, 2018, 100% of students earned 70% or more of points available on their final oral presentation. The assessment rubric and project guidelines are attached. (05/30/2018) **Related Documents:** MATH 401 Project Description and Rubrics.pdf	**Use of Result:** We will reassess in the Spring of 2020. We will increase the goal to 70% of the students earning 75% or more. (05/10/2018)
	Direct - Writing Intensive Assignment - Students in MATH 401 Mathematical Modeling submit a written report on the outcomes of a modeling project. The percentage of students earning 70% or more of points is recorded. **Criteria Target:** 70% of students earn	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes At the end of spring semester, 2018, 73% of students earned 70% or more of points available for their final written report. (05/30/2018) **Related Documents:** MATH 401 Project Description and Rubrics.pdf	**Use of Result:** We will reassess in the Spring of 2020. (05/10/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	70% or more. **Schedule/Notes:** Alternate year course. This course was chosen because it is a senior level course, taken predominantly by majors. This is an example of course embedded written communication.		
	Direct - Capstone Project - including undergraduate research - Students present the results of their MATH 490 [Individualized Research Topics in Mathematics] experience in the form of an oral presentation. The ILO rubric is used to assess this outcome. **Criteria Target:** The students scores on Communication using the rubric are recorded and averaged. The goal is an average of 3 out of 4. **Schedule/Notes:** All faculty in the School of Mathematics and Computer Science who attend the senior project presentation complete the ILO rubric. Each student's scores are based on an average of faculty respondents. **High Impact Program Practices 1:** Capstone Course(s), Projects **Related Documents:** ILO Rubric.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Average of 3.07/4 (06/25/2018)	**Use of Result:** Reassess again in 2018-2019 using the ILO rubric. We will encourage faculty to participate through advance planning and communication. (05/10/2018)
Problem Solving - Students will be able to use computing, gather evidence, discover patterns, create models, experiment with data, and solve theoretical or applied problems. **Goal Status:** Active **Goal Category:** Student Learning **Start Date:** 01/01/2018 **Goal Level (Bloom/Webb):** Mid-	**Direct - Exam/Quiz - within the course -** On the final exam in MATH 310 Differential Equations, two to three problems related to modeling and one problem related to the use of Laplace transform as a solution technique are chosen. The percentage of students earning 70% or more of points available on these	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Spring semester 2018, 100% of mathematics majors earned 70% or more of points on problems 4, 8, and 10 of the final exam, compared to 63% of all students. These three problems were chosen because they dealt with modeling and Laplace transforms. (05/30/2018)	**Use of Result:** Reassess during the 2018-2019 school year. In the fall of 2018, create a rubric or scoring guide for one or more modeling and Laplace transform problems that can be used by multiple instructors to standardize the assessment. (05/30/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem.	problems is recorded. **Criteria Target:** 70% of mathematics majors earn 70% or more of the available points on these problems. **Schedule/Notes:** Differentials Equations is one of two courses that are terminal to the calculus sequence. These problems were chosen to measure modeling and problem solving at a high level.		
	Direct - Exam/Quiz - within the course - The percentage of students earning 70% or above on the final exam in MATH 309 Applied Statistics is recorded. **Criteria Target:** 70% or more of students will score 70% or above. **Schedule/Notes:** Alternate Year Course This course was chosen because it is the terminal course in the statistics sequence. All problems on the final exam are targeted at computing, experimenting with data, and solving applied problems in statistics.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 86% of students earned 70% or more of points available on the final exam (05/30/2018)	**Use of Result:** Reassess during the 2019-2020 academic year. In Spring 2020, create a rubric or scoring guide for one or more applied statistics problems that can be used by multiple instructors to standardize the assessment. (08/07/2018)
	Direct - Exam/Quiz - within the course - In MATH 401 Mathematical Modeling, the percentage of students earning 70% or more of points available on one or two mid-semester exams is recorded. **Criteria Target:** 70% of students earned 70% or more. **Schedule/Notes:** Alternate Year Course These exams represent a variety of mathematical modeling and problem solving techniques at a senior level.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes During the spring semester of 2018, 93% of students earned 70% or more of points available on their two midterm exams. (05/30/2018)	**Use of Result:** Reassess during the 2019-2020 school year. In the Spring of 2020, create a rubric or scoring guide for one or more modeling problems that can be used by multiple instructors to standardize the assessment. (05/30/2018)
	Direct - Exam/Quiz - within the	**Finding Reporting Year:** 2016-2017	**Use of Result:** This objective is

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	course - Three or four problems on the final exam in MATH 411 Topics in Advanced Calculus, related to applications, are chosen. The percentage of students earning 70% or more of points available on these problems is recorded. **Criteria Target:** 70% of students earn 70% or more. **Schedule/Notes:** Alternate Year Course This course is one of two courses at the end of the calculus sequence. It was chosen as a course that assesses the entire calculus sequence and which contains advanced applied problems.	**Goal met:** Yes 97% success at 70% or better (08/27/2018)	met. We will monitor again in the next offering in Spring 2019. (08/27/2017)
	Direct - Capstone Project - including undergraduate research - Students present the results of their MATH 490 experience in the form of an oral presentation. The ILO rubric is used to assess this outcome. **Criteria Target:** The students scores on Use of Evidence using the rubric are recorded and averaged. The goal is an average of 3 out of 4. **Schedule/Notes:** All faculty in the School of Mathematics and Computer Science who attend the senior project presentation complete the ILO rubric. Each student's scores are based on an average of faculty respondents. **High Impact Program Practices 1:** Capstone Course(s), Projects **Related Documents:** ILO Rubric.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** No 2.93/4 average on ILO rubric (05/30/2018)	**Use of Result:** This average is based on only 3 projects. Our goal is to continue to assess the presentations using the ILO rubric. One action item is to provide the rubric to students in advance. (05/30/2018)
Analysis - Students will be able to use	**Direct - Exam/Quiz - within the**	**Finding Reporting Year:** 2017-2018	**Use of Result:** Reassess during the

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
symbolic, analytical and quantitative skills and formal mathematical tools and techniques to analyze problems, synthesize solutions, and write proofs . **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art.	**course -** Three or four problems on the final exam in MATH 310 Differential Equations, using a variety of mathematical tools developed through the calculus sequence, are chosen. The percentage of students earning 70% or more of points available on these problems is recorded. **Criteria Target:** 70% of students earn 70% or more. **Schedule/Notes:** This is one of two courses at the end of the calculus sequence and is used to assess the students' ability to use the tools of calculus at a high level.	**Goal met:** Yes During spring semester of 2018, 63% of all students and 100% of mathematics majors earned 70% or more of points available on problems 2, 3, 5, and 6 of the final exam. These problems were chosen because they utilize a variety of mathematical tools from the calculus sequence. (05/30/2018)	2018-2019 school year. In the fall of 2018, create a rubric or scoring guide for one or more problems that can be used by multiple instructors to standardize the assessment. (05/30/2018)
	Direct - Exam/Quiz - within the course - Three or four problems on the final exam in MATH 411 Topics in Advanced Calculus, using a variety of mathematical tools developed through the calculus sequence, are chosen. The percentage of students earning 70% or more of points available on these problems is recorded. **Criteria Target:** 70% of students earning 70% or more. **Schedule/Notes:** Alternate Year Course. This is one of two courses at the end of the calculus sequence and is used to assess the students' ability to use the tools of calculus at a high level.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 97% achieved 70% or better (08/27/2018)	**Use of Result:** No concerns at this time. We will monitor this objective again in the next offering during the Spring of 2019. (08/27/2018)
	Direct - Writing Intensive Assignment - Success on proof-writing homework assignments for MATH 351 Graph Theory which are related to the theory objective are	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes In the Fall of 2016, 100% of students earned 70% or more of points available on the final exam in MATH 351. (01/01/2017)	**Use of Result:** Reassess during the 2018-2019 school year. In the fall of 2018, create a rubric or scoring guide for one or more proofs that can be used by multiple

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	assessed. The percentage of students earning 70% or more of possible points is recorded. **Criteria Target:** 70% of students earning 70% or more. **Schedule/Notes:** Alternate Year Course This course was chosen because it is a terminal course in the discrete mathematics sequence. The theory objective states, "Students will be able to state, give illustrative examples of, and prove the most important graph theorems. These include correctness of each graph algorithm, min-max theorems (Hall's Theorem, Max-Flow-Min-Cut Theorem, Menger's Theorem, Euler-path theorem. State and prove computational complexity of graph algorithms." This assessment method is being used to assess advanced proof-writing. Because proofs at this level require time to write and revise, homework assignments were used.		instructors to standardize the assessment. (05/30/2018)
	Direct - Capstone Project - including undergraduate research - Students present the results of their MATH 490 experience in the form of an oral presentation. The ILO rubric is used to assess this outcome. **Criteria Target:** The students scores on Analysis and Synthesis using the rubric are recorded and averaged. The goal is an average of 3 out of 4. **Schedule/Notes:** All faculty in the School of Mathematics and Computer Science who attend the	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Average of 3.02 out of 4. (06/25/2018)	**Use of Result:** This average is based on only 3 projects. Our goal is to continue to assess the presentations using the ILO rubric. One action item is to provide the rubric to students in advance. (05/30/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	senior project presentation complete the ILO rubric. Each student's scores are based on an average of faculty respondents. **High Impact Program Practices 1:** Capstone Course(s), Projects **Related Documents:** ILO Rubric.docx		
Professional Responsibility - Students will be able to apply mathematical methodologies and adhere to ethical and professional standards in their senior capstone project. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Institutional Learning:** ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal.	**Direct - Capstone Project - including undergraduate research -** Students present the results of their MATH 490 experience in the form of an oral presentation. The ILO rubric is used to assess this outcome. **Criteria Target:** The students scores on Professional Responsibility using the rubric are recorded and averaged. The goal is an average of 3 out of 4. **Schedule/Notes:** All faculty in the School of Mathematics and Computer Science who attend the senior project presentation complete the ILO rubric. Each student's scores are based on an average of faculty respondents. **Related Documents:** ILO Rubric.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** No 2.67 out of 4 (06/25/2018)	**Use of Result:** This average is based on only 3 projects. Our goal is to continue to assess the presentations using the ILO rubric. One action item is to provide the rubric to students in advance. For professional responsibility in particular, in the Fall of 2019, faculty in the School will devise a plan to communicate the cultural norms and practices of mathematicians to students and clarify how professional responsibility should be assessed during the capstone experience. (05/30/2018)

CoIS Assessment: Reporting Units

School of Computer Science and Mathematics 18sept18

Program (CoIS) - Mathematics Elementary Ed BS

Assessment Contact: Dr. Brian Snyder
Mission Statement: The School of Mathematics and Computer Science offers baccalaureate degree programs in mathematics and computer science that are designed to develop students? full potential and to prepare graduates for professional careers, and also to provide them with the background needed to pursue further study in graduate school.

The School also offers computer-related associate?s degrees, designed to prepare graduates for employment in technologically challenging positions in business and industry.

The School provides general education support in mathematics for all academic programs across the University.

Finally, the School provides important foundational support in mathematics and computer science to the various academic programs offered within other units of the University.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
2.1 Program Enrollment - Strategy 2.1 The Program establishes realistic goals for program enrollment that are optimistic, realistic, achievable. **Goal Status:** Active **Goal Category:** Enrollment	**Other Findings**	**Finding Reporting Year:** 2017-2018 **Goal met:** No Enrollment Trends Attached (06/25/2018) **Related Documents:** Copy of Enrollment by year through 2017.xlsx	
Mathematical Processes and Number Concepts - Candidates will be able to use mathematical processes, axiomatic systems, computing, algorithms, and logical reasoning to solve problems and communicate mathematical ideas. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal	**Direct - Exam/Quiz - Standardized -** The Mathematical Processes and Number Concepts subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed **Criteria Target:** 80% of students will score 3 or higher on the subarea score	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students scored 3 or higher. (04/21/2018)	**Use of Result:** While there are no concerns about the scores, we will work in the Fall of 2018 to develop a new plan for recruitment into this program. Only two students from this program took the exam this year. (04/21/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes No majors in this program took the MTTC exam this year. (One person pursuing a minor in Mathematics Elementary	**Use of Result:** There are no concerns at this time. (08/31/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Communication - Students will develop and clearly express complex ideas in written and oral presentations., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: InTASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.5.1, 1.5.9, 1.5.12, 1.5.13, 1.6, 2.2		Teaching took the exam and had a subscore in this area of 4.) (04/22/2017)	
	Direct - Exam/Quiz - within the course - Candidates in MATH 325 College Geometry are asked to define undefined terms, axioms and theorems in geometry, describe their role in axiomatic systems and to provide an example of each **Criteria Target:** 80% of students will score 7 or more points on the scoring guide. **Schedule/Notes:** MATH 325 is an alternate year course. **Related Documents:** MATH 325 Undefined Terms Axioms Theorems Scoring Guide.docx	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of the students scored 7 or above. (05/05/2017)	**Use of Result:** There are no concerns at this time. We will assess again in the Spring of 2019. (05/05/2017)
	Direct - Exam/Quiz - within the course - Candidates in CSCI 105 Introduction to Computer Programming will be able to acquire data and then transform that data using mathematical calculations **Criteria Target:** 70% of students will score 70% or above	**Finding Reporting Year:** 2017-2018 **Goal met:** No 60.9% of the students were able to acquire the data and 78.5% of the students were able to transform the data using mathematical calculations with a score of 70% or above. (05/01/2018)	**Use of Result:** The ability to Acquire Data failed to meet expectations. This outcome is also reflected in the Student Learning Outcomes for the overall CSCI 105 course. As a result, both the outcomes related to the School of Education and the outcomes related directly to this course indicate a potential disconnect in the course. The students performed well on Transform Data using a Mathematical Calculation. This does not reflect the core competency in the topic of the course: programming. For the Fall 2018 semester, a new textbook will be selected to strengthen the emphasis upon programming and data processing. This change is driven not just from this particular

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
			assessment, but also the SLO assessment from past offerings of the course. (05/01/2018)
	Direct - Exam/Quiz - within the course - Students in MATH 103 [Number Systems and Problem Solving for Elementary Teachers] are able to describe and justify algorithms used in elementary school. **Criteria Target:** 70% of students are successful	**Finding Reporting Year:** 2017-2018 **Goal met:** No 56% of the students could complete this task and 88% were partially successful in that they were able to describe/replicate the algorithm but could not fully justify it. (05/01/2018)	**Use of Result:** In the Fall of 2018, we will reinforce (through in class activities) the justification of algorithms. We will also develop a rubric for grading this Key Assessment that can be used across multiple sections. (08/31/2018)
	Students in MATH 215 [Fundamental Concepts of Mathematics} will be able to read, interpret, explain, and develop proofs of mathematical propositions, lemmas, theorems, and corollaries. **Criteria Target:** An average of 75% on test problems related to this objective, both on exams an multiple class presentations.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes Average of 86%. (09/04/2018)	**Use of Result:** This course is very stable. It goes best when there are 6-12 students, because that gives everyone a chance to present their work at least twice a week. By the end of the semester, students are very comfortable presenting their mathematics and thinking on their feet, and they appreciate how far they have come. While there are no immediate concerns about this objective, aggregate data may be hard to assess over the long term. In the Fall of 2018, we will develop a rubric for one or two key assessments that measure this outcome. (01/01/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes Average of 76% (01/01/2017)	**Use of Result:** Students are expected to present mathematics to their peers weekly. They are usually afraid at first, but they develop comfort and skill presenting their work by the end of the course. We find this

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
			methodology has merit and will continue in the Fall of 2017. (01/01/2017)
Patterns, Algebraic Relationships and Functions - Candidates will be able to describe, analyze, and generalize patterns, algebraic relationships and functions using the tools of algebra and calculus. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: InTASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.5.1, 1.5.9, 1.5.12, 1.6, 2.2 **Assessment Year:** AY17-18	**Direct - Exam/Quiz - Standardized -** The Patterns, Algebraic Relationships, and Functions subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score 3 or higher on this subarea.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students made a 3 or higher. (04/21/2018)	**Use of Result:** While there are no concerns about the scores, we will work in the Fall of 2018 to develop a new plan for recruitment into this program. Only two students from this program took the exam this year. (04/21/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes No majors in this program took the exam this year. (One minor in Mathematics Elementary Teaching took the exam and scored a 4 in this subarea.) (04/22/2017)	**Use of Result:** There are no concerns at this time. (04/22/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 151 Calculus I are asked to create a function that models a given verbal description, then use calculus to find an optimal solution to a problem. **Criteria Target:** 70% of students will score 4 or higher on the scoring guide. **Related Documents:** Candidates in MATH 151 Calculus I Modeling Scoring Guide.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** No 68% of the students scored 4 or higher. (06/01/2018)	**Use of Result:** A majority of the students were able to find the correct model and locate the extrema, though many of these did not put units on their answers. For those who were not success, the biggest issue was going from a multivariable equation to a single variable function. In the Fall of 2018, we will emphasize model creation in the lecture, give a formative assessment quiz over the section and provide the students with the rubric before the summative assessment. (06/01/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 71% scored 4 or higher. (05/05/2017)	**Use of Result:** The goal was met, we will monitor again in the Fall of 2017. (05/05/2017)
	Direct - Exam/Quiz - within the	**Finding Reporting Year:** 2017-2018	**Use of Result:** There were no

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	course - Candidates in MATH 152 Calculus II are asked to find the interval and radius of converge for a power series. **Criteria Target:** At least 70% of students will score 5 or higher on the scoring guide. **Related Documents:** MATH 152 Calculus II Power Series Scoring Guide.docx	**Goal met:** No 64% of students scored 5 or higher. (06/01/2018)	elementary education majors in the class, so the 64% was the overall class percentage. The largest area of difficulty was solving absolute value inequalities algebraically. In the Fall of 2018, faculty will provide an extra algebra review over solving absolute value inequalities and see if this improves student performance. (06/01/2018)
	Direct - Group project, collaborative learning - Candidates in MATH 103 [Number Systems and Problem Solving for Elementary Teachers] are able to state a function given a list of values, such as an arithmetic sequence or other linear function. **Criteria Target:** 70% of students are able to determine the function with 6 or fewer inputs.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 75% of students were able to determine the function in 6 or fewer steps. (50% were able to do so in 4 or fewer steps.) (01/01/2018)	**Use of Result:** There are no concerns at this time. We will reassess in Fall of 2018. (01/01/2018)
Measurement and Geometry - Candidates will be able to apply geometric principles in Euclidean, analytic, transformational and vector geometry to analyze geometric objects, form conjectures, solve problems and prove theorems. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve	**Direct - Exam/Quiz - Standardized -** The Measurement and Geometry subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score 3 or higher on this subarea.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of majors scored 3 or higher. (04/21/2018)	**Use of Result:** While there are no concerns about the scores, we will work in the Fall of 2018 to develop a new plan for recruitment into this program. Only two students from this program took the exam this year. (04/21/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes No majors in this program took the exam this year. (One minor in Mathematics Elementary Teaching took the exam and scored a 3 in this subarea.) (04/22/2017)	**Use of Result:** There are no concerns at this time. (04/22/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 325 College Geometry are asked to construct a geometric object, form a	**Finding Reporting Year:** 2016-2017 **Goal met:** No 50% of students earned 3 or more points on a problem in	**Use of Result:** The students met expectations in coordinate geometry. There were only 4

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
a complex problem., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: In TASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.5.3, 1.5.4, 1.5.5, 1.5.9	conjecture about the object and then prove their conjectures. **Criteria Target:** 805 of students will score 3 or higher on the scoring **Schedule/Notes:** MATH 325 is an alternate year course. **Related Documents:** MATH 325 Construction Conjecture Proof Scoring Guide.docx	Euclidean geometry. 100% of students earned 3 or more points on a problem in coordinate geometry. (05/01/2017)	people in the course. On the problem in Euclidean geometry, two of the students made a false conjecture and were thus unable to prove it. They were more successful correcting the problem outside of class when time wasn't an issue. In the Spring of 2019, we will seek to address this issue by helping students further develop strategies for testing their conjectures before writing proofs. (05/01/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 305 Linear Algebra will be able to find eigenvalues, eigenvectors for alinear transformation. **Criteria Target:** 70% of students will earn 7 out of 10 possible points. **Schedule/Notes:** Available Points: Students are able to find the eigenvalues: 4 points. Students are able to find an eigenvector: 3 points. Students are able to find the other eigenvector: 3 points. MATH 305 is an alternate year course.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 73% of students scored 70% or above. (01/01/2018)	**Use of Result:** No concerns at this time. We will assess again in the Fall of 2019. (01/01/2018)
	Direct - Exam/Quiz - within the course - Candidates in MATH 152 will be able to apply integration methods to find area. **Criteria Target:** 70% of students will score 70% or higher. **Related Documents:** MATH 152 Calculus II Area.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 88% of students scored 70% or higher. (05/01/2018)	**Use of Result:** 21 out of 33 students earned a perfect score on this objective, so there are no major concerns. (05/05/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 86% of students scored 70% or higher. (05/05/2017)	**Use of Result:** There are no concerns with this objective. (05/05/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 104 [Geometry and Measurement for	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 93% of the class was successful. (05/01/2018)	**Use of Result:** There are no concerns with this key assessment. (05/01/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	Elementary Teachers] are able to use similar triangles and the Pythagorean Theorem to solve real world problems. **Criteria Target:** 80% of students are successful.		
Data Analysis, Statistics, Probability, and Discrete Mathematics - Candidates will be able to organize, analyze and interpret data, sets and relations using the tools of statistics, probability and discrete mathematics. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: InTASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.4, 1.5.6, 1.5.7, 1.5.11, 1.5.12, 2.2	**Direct - Exam/Quiz - Standardized -** The Data Analysis, Statistics, Probability and Discrete Mathematics subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score a 3 or higher on this subarea.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students made a 3 or higher. (04/21/2018)	**Use of Result:** While there are no concerns about the scores, we will work in the Fall of 2018 to develop a new plan for recruitment into this program. Only two students from this program took the exam this year. (04/21/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes No majors in this program took the exam this year. (One minor in Mathematics Elementary Teaching took the exam and scored a 4 in this subarea.) (04/22/2017)	**Use of Result:** There are no concerns at this time. (04/22/2017)
	Direct - Exam/Quiz - within the course - Candidates in CSCI 105 [Introduction to Computer Programming] will be able to present and display data and then document and describe the results. **Criteria Target:** 70% of students will score 70% or above.	**Finding Reporting Year:** 2017-2018 **Goal met:** No 56.5% on Present and Display Data 73.1% on Document and Describe Data (05/01/2018)	**Use of Result:** The ability to Present or Display Data failed to meet expectations. This outcome is also reflected in the Student Learning Outcomes for the overall CSCI 105 course. As a result, both the outcomes related to the School of Education and the outcomes related directly to this course indicate a potential disconnect in the course. The students met the expectations for Document or Describe the Results. This does not reflect the core competency in the topic of the course: programming. For the Fall 2018 semester, a new textbook will be selected to strengthen the emphasis upon programming and

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
			data processing. This change is driven not just from this particular assessment, but also the SLO assessment from past offerings of the course. (05/01/2018)
	Direct - Exam/Quiz - within the course - Candidates in MATH 207 [Principles of Statistical Methods] will be able to calculate empirical probabilities given data. **Criteria Target:** 70% of students will score 7 or higher on a 10 point scale.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 73.8% score 7 or above. (05/01/2018)	**Use of Result:** There are no concerns. (05/01/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 79.8% scored 7 or above. (05/01/2017)	**Use of Result:** There are no concerns. (05/01/2017)
	Direct - Group project, collaborative learning - Candidates in MATH 207 [Principles of Statistical Methods will complete a descriptive statistics project. **Criteria Target:** 70% of students scored 70% or above. **Related Documents:** Descriptive Statistics Rubric(2).pdf	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 77.5% scored 70% or above. (05/01/2018)	**Use of Result:** There are no major concerns. In the Fall 2018, there are plans to have at least three meetings with each group to discuss their progress. (05/01/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 90.8% scored 70% or above. (05/01/2017)	**Use of Result:** There are no concerns. (05/01/2017)
Instructional Choices - Candidates make instructional choices that reflect the integrated nature of mathematical concepts and mathematical practices within and among the mathematical domains. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations., ILO2 - Use of Evidence - Students will identify the	Candidates in EDUC 420 [Math Methods for Elementary Teachers] will complete a unit plan. **Criteria Target:** At least 80% of students will score a 3 or higher on each section of the Unit Plan Rubric. **Related Documents:** Unit Plan Assessment.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of students scored 3 or higher on each section of the Unit Plan Rubric. (05/01/2018) **Related Documents:** Unit Plan Key Assessment EDUC420 Spring 2018.docx	**Use of Result:** There are no concerns with student achievement. With regards to this assessment, asking for three key learnings can be challenging. Rather than scoring the unit plan based on how many, the quality of the key learnings should be what is important, so two truly key learnings may be better than a laundry list of key learnings that may not be clearly related to the unit plan. (05/01/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 100% of students scored 3 or higher in each section of the	**Use of Result:** There are no concerns with student

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. , ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal. **Revision Notes:** Alignment with Standards: InTasc: Standards 6, 7, 8. MDE Mathematics Secondary: 2.2, 2.4, 2.5, 3.1		rubric. (05/01/2017) **Related Documents:** Unit Plan Key Assessment EDUC420 year 2016-17.docx	achievement. The assessment focuses on the content knowledge needed to structure unit plans and develop student leaning. This allows the instructor to perceive the strength of the teacher candidates' knowledge of the content to be taught. (05/01/2017)

CoIS Assessment: Reporting Units

School of Computer Science and Mathematics 18sept18

Program (CoIS) - Mathematics Secondary Ed BS

Assessment Contact: Dr. Brian Snyder
Mission Statement: We equip our graduates for success through emphasis on rigorous programs, hands-on experiences, and interaction with highly-qualified faculty members who are centered on student success.

Student Learning Outcomes	*Assessment Criteria & Procedures*	*Assessment Results*	*Use of Results*
2.1 Program Enrollment - Strategy 2.1 The Program establishes realistic goals for program enrollment that are optimistic, realistic, achievable. **Goal Status:** Active **Goal Category:** Enrollment	**Regular, recurring -** The program sets goals for program enrollment which are time-based, progressive, achievable and quantitative. **Criteria Target:** Program Enrollment Growth Goal: _____ by _____	**Finding Reporting Year:** 2017-2018 **Goal met:** No Program enrollment by year attached. Program enrollment goal of 12 in math education degrees by year 2020 (06/08/2018) **Related Documents:** Copy of Enrollment by year through 2017.xlsx	
Mathematical Processes and Number Concepts - Candidates will be able to use mathematical processes, axiomatic systems, computing, algorithms, and logical reasoning to solve problems and communicate mathematical ideas. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or	**Direct - Exam/Quiz - Standardized -** The Mathematical Processes and Number Concepts subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score 3 or higher on the subarea score.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes No testers took the Mathematics Secondary Subject Test in 2017-2018. (08/13/2018)	**Use of Result:** In the Fall of 2018, the faculty of the School of Mathematics and Computer Science are developing new plans for recruitment into this program. These plans will be recorded in the School minutes and implemented as soon as possible. Multiple regional ISDs are in need of math teachers and have contacted LSSU to recruit our students. (08/28/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** No 50% of students scored 3 or higher. (08/13/2017)	**Use of Result:** Only 2 students took the exam this year. One made a 3 and the other a 2. In the last 4 academic years, all but one student has scored 3 or higher.

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: InTASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.5.1, 1.5.9, 1.5.12, 1.6, 2.2			We will continue to monitor this outcome. (08/13/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 325 College Geometry are asked to define undefined terms, axioms and theorems in geometry, describe their role in axiomatic systems and to provide an example of each. **Criteria Target:** 80% of students will score 7 or more points on the scoring guide. **Schedule/Notes:** MATH 325 is an alternate year course. **Related Documents:** MATH 325 Undefined Terms Axioms Theorems Scoring Guide.docx	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of the students scored 7 or above. (05/05/2017)	**Use of Result:** There are no concerns at this time. We will assess again in the Spring of 2019. (05/10/2017)
	Direct - Group project, collaborative learning - Students in MATH 401 Mathematical Modeling will complete a a modeling project and write a report about their results. **Criteria Target:** A score of 6 or higher out of 9 possible points. **Schedule/Notes:** MATH 401 is an alternate year course. **High Impact Program Practices 1:** Collaborative Assignments, Projects **Related Documents:** MATH 401 Project Rubric.pdf	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 100% of the Mathematics Secondary Education majors scored a 6 or higher. (08/27/2018)	**Use of Result:** These students, working together in a group, did a strong job motivating and deriving their mathematical models. Though still worthy of full marks (2/2) student analysis of the model was perhaps the weakest area. In the rubric, items (b) and (c) are difficult to distinguish and should be merged into a single bullet worth four points. Also, in future projects it may be wise to have students working in groups to self-assess their group's functionality during progress reports. (08/27/2018)
	Direct - Exam/Quiz - within the course - Candidates in CSCI 105 Introduction to Computer Programming will be able to acquire data and then transform that data using mathematical calculations.	**Finding Reporting Year:** 2017-2018 **Goal met:** No 60.9% of the students were able to acquire the data and 78.5% of the students were able to transform the data using mathematical calculations with a score of 70% or above. (05/01/2018)	**Use of Result:** The ability to Acquire Data failed to meet expectations. This outcome is also reflected in the Student Learning Outcomes for the overall CSCI 105

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	Criteria Target: 70% of the students will score 70% or above.		course. As a result, both the outcomes related to the School of Education and the outcomes related directly to this course indicate a potential disconnect in the course. The students performed well on Transform Data using a Mathematical Calculation. This does not reflect the core competency in the topic of the course: programming. For the Fall 2018 semester, a new textbook will be selected to strengthen the emphasis upon programming and data processing. This change is driven not just from this particular assessment, but also the SLO assessment from past offerings of the course. (06/15/2018)
Patterns, Algebraic Relationships, and Functions - Candidates will be able to describe, analyze, and generalize patterns, algebraic relationships and functions using the tools of algebra and calculus. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards:	**Direct - Exam/Quiz - Standardized -** The Patterns, Algebraic Relationships, and Functions subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score 3 or higher on this subarea.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes No testers took the Mathematics Secondary Subject Test in 2017-2018. (08/13/2018)	**Use of Result:** In the Fall of 2018, the faculty of the School of Mathematics and Computer Science are developing new plans for recruitment into this program. These plans will be recorded in the School minutes and implemented as soon as possible. Multiple regional ISDs are in need of math teachers and have contacted LSSU to recruit our students. (08/28/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 100% of students scored 3 or higher. (08/13/2017)	**Use of Result:** 100% of students in the last 3 years have scored a 4 in this area. (08/13/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 151	**Finding Reporting Year:** 2017-2018 **Goal met:** No	**Use of Result:** A majority of the students were able to find the

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
InTASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.5.3, 1.5.4, 1.5.5, 1.5.9	Calculus I are asked to create a function that models a given verbal description, then use calculus to find an optimal solution to a problem. **Criteria Target:** 70% of students will score 4 or higher on the scoring guide. **Related Documents:** Candidates in MATH 151 Calculus I Modeling Scoring Guide.docx	68% of the students earned a 4 or higher. (06/01/2018)	correct model and locate the extrema, though many of these did not put units on their answers. For those who were not success, the biggest issue was going from a multivariable equation to a single variable function. In the Fall of 2018, we will emphasize model creation in the lecture, give a formative assessment quiz over the section and provide the students with the rubric before the summative assessment. (06/01/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 71% of students scored 4 or more. (05/05/2017)	**Use of Result:** The goal was met. We will monitor again in the Fall of 2017. (08/27/2018)
	Direct - Exam/Quiz - within the course - Candidates in MATH 152 Calculus II are asked to find the interval and radius of converge for a power series. **Criteria Target:** At least 70% of students will score 5 or higher on the scoring guide. **Related Documents:** MATH 152 Calculus II Power Series Scoring Guide.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** No 64% of the students made 5 or higher. (05/10/2018)	**Use of Result:** There was only one secondary education major in the class and this student scored 7 out of 7. The largest area of difficulty was solving absolute value inequalities algebraically. In the Fall of 2018, faculty will provide an extra algebra review over solving absolute value inequalities and see if this improves student performance. (08/27/2018)
	Candidates in MATH 341 Abstract Algebra will be able to solve problems using groups and their properties. **Criteria Target:** 70% of students will score 70% or above on this objective. **Schedule/Notes:** MATH 341 is an alternate year course.	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of students were successful (01/01/2017)	**Use of Result:** If expectations were at 80%, there would be 3/4 students meeting condition. Because of small population, 70/70 or 80/80 may not be met due to 1 student not meeting expectations. Care must be used during future assessment cycles. (01/01/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
Measurement and Geometry - Candidates will be able to apply geometric principles in Euclidean, analytic, transformational and vector geometry to analyze geometric objects, form conjectures, solve problems and prove theorems. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: InTASC: Standards 4 and 5 MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.5.3, 1.5.4, 1.5.5, 1.5.9	**Direct - Exam/Quiz - Standardized -** The Measurement and Geometry subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score 3 or higher on this subarea.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes No testers took the Mathematics Secondary Subject Test in 2017-2018. (08/13/2018)	**Use of Result:** See comment above about recruitment. (08/28/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 100% of students scored a 3 or higher in this area. (08/13/2017)	**Use of Result:** No concerns at this time. The average over the last 3 year period in this subarea is 3.4, with 100% of students scoring 3 or higher. (08/13/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 325 College Geometry are asked to construct a geometric object, form a conjecture about the object and then prove their conjectures. **Criteria Target:** 80% of students will score 3 or higher on the scoring **Schedule/Notes:** MATH 325 is an alternate year course. **Related Documents:** MATH 325 Construction Conjecture Proof Scoring Guide.docx	**Finding Reporting Year:** 2016-2017 **Goal met:** No 50% of students earned 3 or more points on a problem in Euclidean geometry. 100% of students earned 3 or more points on a problem in coordinate geometry. (08/28/2018)	**Use of Result:** The students met expectations in coordinate geometry. There were only 4 people in the course. On the problem in Euclidean geometry, two of the students made a false conjecture and were thus unable to prove it. They were more successful correcting the problem outside of class when time wasn't an issue. In the Spring of 2019, we will seek to address this issue by helping students further develop strategies for testing their conjectures before writing proofs. (06/01/2017)
	Direct - Exam/Quiz - within the course - Candidates in MATH 305 Linear Algebra will be able to find eigenvalues, eigenvectors for a linear transformation. **Criteria Target:** 70% of students will 7 out of the 10 possible points. **Schedule/Notes:** Available Points: Students are able to find the eigenvalues: 4 points Students are able to find an eigenvector: 3 points Students are able to find the other	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 73% of students scored 70% or above. (01/05/2018)	**Use of Result:** No concerns at this time. We will assess again in the Fall of 2019. (05/01/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	eigenvector: 3 points MATH 305 is an alternate year course. **Direct - Exam/Quiz - within the course -** Candidates in MATH 152 will be able to apply integration methods to find area. **Criteria Target:** 70% of students will score 70% or higher. **Related Documents:** MATH 152 Calculus II Area.docx	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 88% of students scored 70% or higher. (05/10/2018) **Finding Reporting Year:** 2016-2017 **Goal met:** Yes 86% of students scored 70% or higher. (05/02/2017)	**Use of Result:** 21 out of 33 students earned a perfect score on this objective, so there are no major concerns. (07/23/2018) **Use of Result:** There are no concerns with this objective. (08/28/2018)
Data Analysis, Statistics, Probability, and Discrete Mathematics - Candidates will be able to organize, analyze and interpret data, sets and relations using the tools of statistics, probability and discrete mathematics. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** Mid-Level (Analyzing/Applying) [Bloom] **Institutional Learning:** ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. **Revision Notes:** Alignment to Standards: InTASC: Standards 4 and 5	**Direct - Exam/Quiz - Standardized -** The Data Analysis, Statistics, Probability and Discrete Mathematics subarea scores on the MTTC Mathematics (EX) Subject Test will be analyzed. **Criteria Target:** 80% of students will score a 3 or higher on this subarea.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes No testers took the Mathematics Secondary Subject Test in 2017-2018. (08/13/2018)	**Use of Result:** In the Fall of 2018, the faculty of the School of Mathematics and Computer Science are developing new plans for recruitment into this program. These plans will be recorded in the School minutes and implemented as soon as possible. Multiple regional ISDs are in need of math teachers and have contacted LSSU to recruit our students. (08/29/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 100% of students scored 3 or higher in this subarea. (08/13/2017)	**Use of Result:** No concerns at this time. The average over the last 3 year period in this subarea is 3.4, with 100% of students scoring 3 or higher. (08/13/2017)
	Direct - Exam/Quiz - within the course - Candidates in CSCI 105 Introduction to Computer Programming will be able to present and display data and then document and describe the results. **Criteria Target:** 70% of students will	**Finding Reporting Year:** 2017-2018 **Goal met:** No 56.5% on Present and Display Data 73.1% on Document and Describe Data (05/01/2018)	**Use of Result:** The ability to Present or Display Data failed to meet expectations. This outcome is also reflected in the Student Learning Outcomes for the overall CSCI 105 course. As a result, both the outcomes related to the

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
MDE Mathematics Secondary: 1.1, 1.2, 1.3, 1.4, 1.5.6, 1.5.7, 1.5.11, 1.5.12, 2.2	score 70% or above.		School of Education and the outcomes related directly to this course indicate a potential disconnect in the course. The students met the expectations for Document or Describe the Results. This does not reflect the core competency in the topic of the course: programming. For the Fall 2018 semester, a new textbook will be selected to strengthen the emphasis upon programming and data processing. This change is driven not just from this particular assessment, but also the SLO assessment from past offerings of the course. (06/10/2018)
	Direct - Exam/Quiz - within the course - Candidates in MATH 207 Principles of Statistical methods will be able to calculate empirical probabilities given data. **Criteria Target:** 70% of students will score 7 or higher on a 10 point scale.	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 73.8% score 7 or above. (08/29/2018)	**Use of Result:** There are no concerns. (08/29/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 79.8% scored 7 or above. (08/29/2017)	**Use of Result:** There are no concerns. (08/29/2017)
	Direct - Group project, collaborative learning - Students in MATH 207 Principles of Statistical Methods will complete a descriptive statistics project. **Criteria Target:** 70% of students scored 70% or above. **Related Documents:** Descriptive Statistics Rubric(2).pdf	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 77.5% scored 70% or above. (08/29/2018)	**Use of Result:** There are no major concerns. In the Fall 2018, there are plans to have at least three meetings with each group to discuss their progress. (08/29/2018)
		Finding Reporting Year: 2016-2017 **Goal met:** Yes 90.8% scored 70% or above. (08/29/2017)	**Use of Result:** There are no concerns. (08/29/2018)
	Students in MATH 216 Discrete Mathematics will state and apply the Pigeonhole Principle to prove various combinatorial statements. **Criteria Target:** 70% of students will	**Finding Reporting Year:** 2017-2018 **Goal met:** Yes 83% of students scored 70% or higher. (05/01/2018)	**Use of Result:** We will reassess in the Spring of 2020. (05/01/2018)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
	score 70% or higher **Schedule/Notes:** MATH 216 is an alternate year course.		
Instructional Choices - Candidates make instructional choices that reflect the integrated nature of mathematical concepts and mathematical practices within and among the mathematical domains. **Goal Status:** Active **Goal Category:** Student Learning **Goal Level (Bloom/Webb):** High-Level (Creating/Evaluating) [Bloom] **Institutional Learning:** ILO1 - Formal Communication - Students will develop and clearly express complex ideas in written and oral presentations., ILO2 - Use of Evidence - Students will identify the need for, gather, and accurately process the appropriate type, quality, and quantity of evidence to answer a complex question or solve a complex problem., ILO3 - Analysis and Synthesis - Students will organize and synthesize evidence, ideas, or works of imagination to answer an open-ended question, draw a conclusion, achieve a goal, or create a substantial work of art. , ILO4 - Professional Responsibility - Students will demonstrate the ability to apply professional ethics and intercultural competence when answering a question, solving a problem, or achieving a goal. **Revision Notes:** Alignment with Standards: InTASC: Standards 6,7,8	Students in EDUC442 [Math Methods for Secondary Teachers] or EDUC 452 [Directed Study in Math Methods for Secondary Teachers] will complete a unit plan. **Criteria Target:** At least 80% of students will score a 3 or higher on each subsection of the Unit Plan Rubric. **Related Documents:** Unit Plan Assessment.docx	**Finding Reporting Year:** 2016-2017 **Goal met:** Yes 100% of students scored 3 or 4 on each of the subareas of the Unit Plan Rubric. (08/31/2018) **Related Documents:** Claim 1. Unit Plan Key Assessment EDUC452 year 2016-17.docx	**Use of Result:** See the related document on the Unit Plan assessment. The assessment focuses on the content knowledge needed to structure unit plans and develop student leaning. This allows the instructor to perceive the strength of the teacher candidates' knowledge of the content to be taught. There are no concerns at this time. (05/01/2017)

Student Learning Outcomes	Assessment Criteria & Procedures	Assessment Results	Use of Results
MDE Mathematics Secondary: 2.2, 2.4, 2.5, 3.1			