

Leveraging EAC Blackboard's Assessment and Accreditation Solution for Computing Programs' Assessment and ABET Accreditation

Mostafa El-Said, Ph.D.

Professor, School of Computing
Assessment and Accreditation Director
Padnos College of Engineering and Computing
Grand Valley State University
Allendale, MI 49418

Tel: (616) 331-8686

Email: elsaidm@gvsu.edu

Samah Mansour, Ph.D.

Assistant Professor, School of Computing
Graduate Program Director for MS Cybersecurity
Padnos College of Engineering and Computing
Grand Valley State University
Allendale, MI 49418

Tel: (616) 331-3051

Email: mansours@gvsu.edu

Agenda

- Introduction
- Importance of accreditation
- Why do we care about ABET accreditation?
- ABET Organization
- ABET Philosophy
- Principles of program assessment
- Challenges of leading and implementing assessment
- Conceptual model for the program continuous improvement
- How can Blackboard's assessment solution help us?
- The use EAC as a data collection, analysis and visualization engine

Our Backgrounds



Dr. Mostafa El-Said



Dr. Samah Mansour

Grand Valley State University

- Public University
- Located in West Michigan
- **Three** main campuses and **four** regional centers



NUMBER OF STUDENTS

Total: 22,269

Undergraduate:
19,243

Graduate: 3,026

DEGREES OFFERED

Total: 145

Undergraduate:
100

Graduate: 45

EMPLOYEES

Number of Faculty:

1,234

Support Staff:

1,887

School of Computing

Undergraduate	
Program	# of Students
Computer Science	627
Cybersecurity	158
Information Technology	95
Information Systems	86
Graduate	
Program	# of Students
Applied Computer Science	168
Cybersecurity	49
Data Science and Analytics	110
Health Informatics and Bioinformatics	71

General Information

of Faculty members: 46
Average Class Size: 26



Computing
 Accreditation
 Commission

Accreditation

Accredited Programs: Computer Science, Information Technology, and Information Systems

Program to be Accredited: Cybersecurity and Data Science

<https://www.gvsu.edu/computing/accreditation-132.htm>

Quick Poll

PollEv.com/mostafaelsaid056

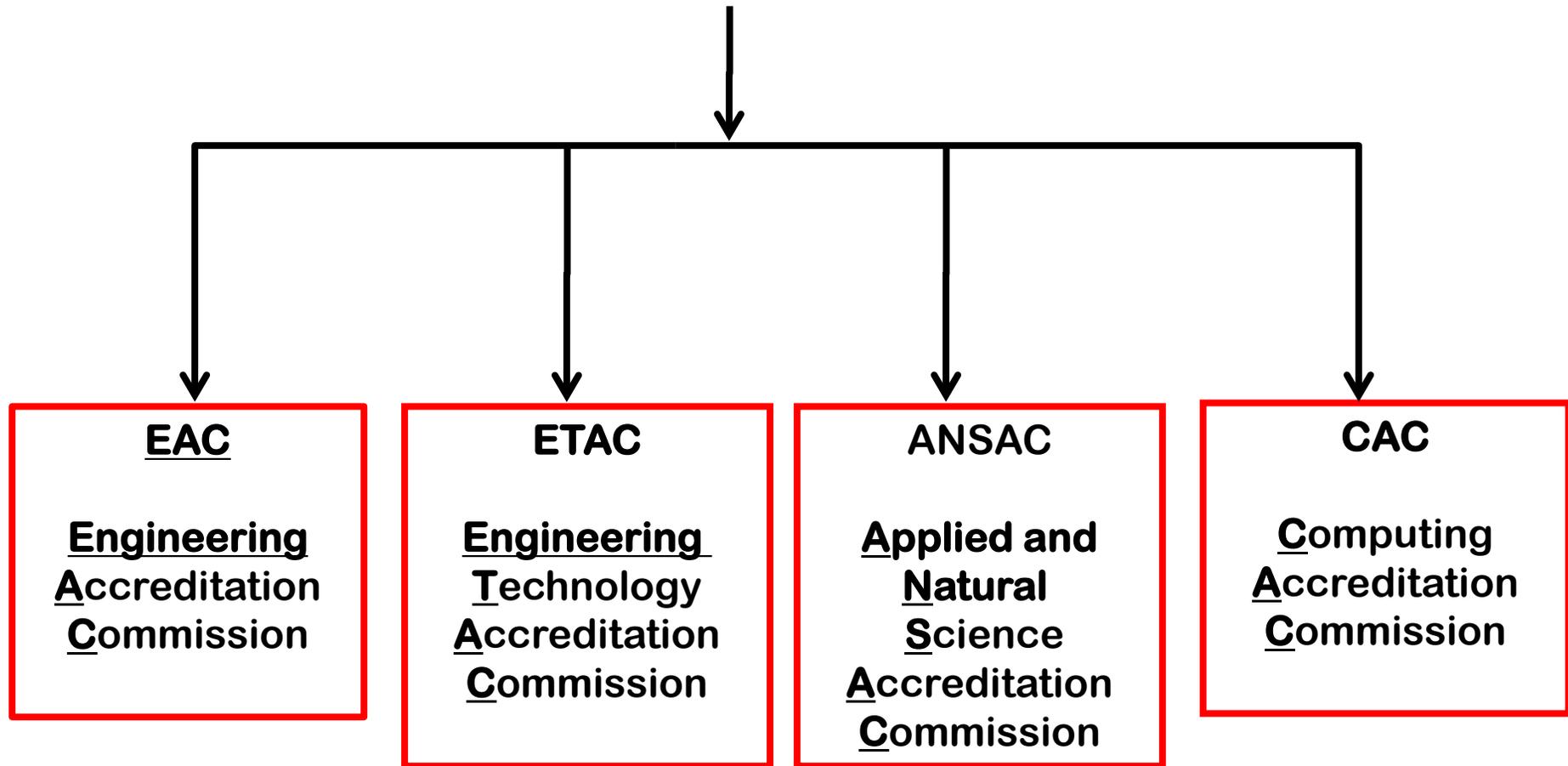
Importance of Accreditation

- **Accreditation is used to assure quality in educational programs.** Accreditation is a voluntary, non-governmental process of peer review. It requires an educational program to meet certain defined standards or criteria.
- The **Accreditation Board for Engineering and Technology (ABET)** is a professional accrediting organization that **accredits programs, not institutions.**
- **Accreditation serves to notify:**
 - Parents and prospective students that a program has met professional standards;
 - Faculty, deans and administrators of a program's strengths and weaknesses and of ways to improve the program;
 - Employers that graduates are prepared to begin professional practice;
 - Taxpayers that their funds are spent well;

Why do we care about ABET accreditation?

- ABET audits programs on a regular basis to ensure that the program maintains high standards.
- The accreditation criteria help to define what your program should provide your students.
- The accreditation process helps the programs to continually analyze and improve their courses and curriculum.
- The accreditation process requires that the voices of all stakeholders to be heard in evaluating the program.

ABET ORGANIZATION



Accreditation Numbers



512 institutions received accreditation under the CAC commission.

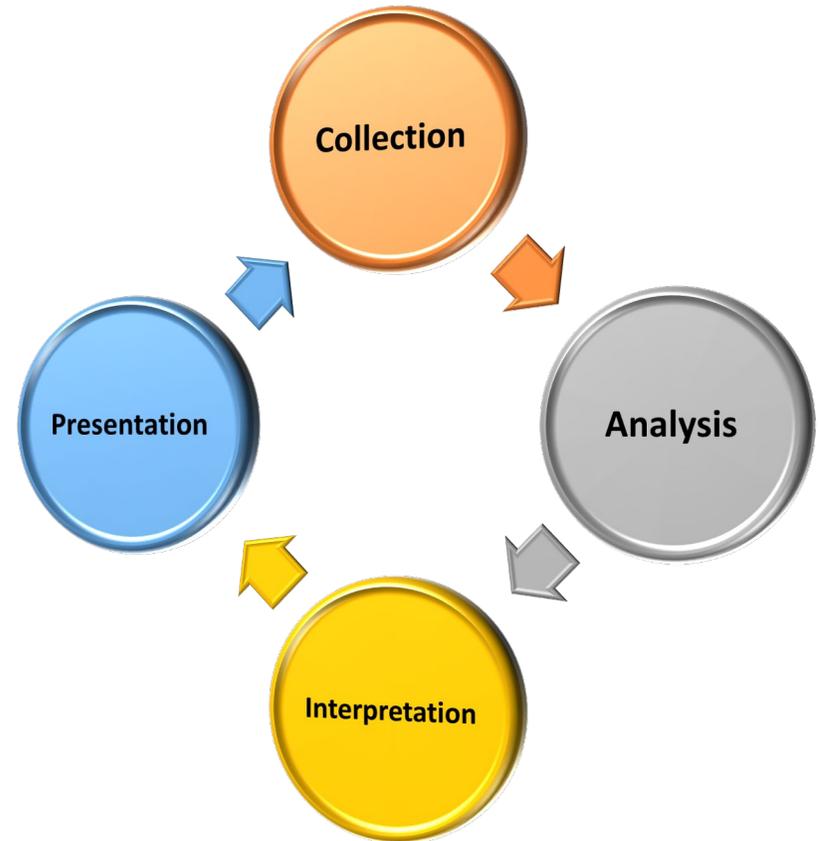
ABET PHILOSOPHY

- Each Institution and Program defines its own mission and objectives to meet the needs of its constituents.
- Emphasizes outcomes that prepare graduates for the job market.
- Programs must demonstrate how their criteria and educational objectives are being met.
- Programs must design processes leading to continuous program improvement.



PRINCIPLES OF PROGRAM ASSESSMENT

- Student learning is cumulative over time
- What students learn in one course, they use, practice, and develop in other courses.
- Program Assessment is a systematic process.

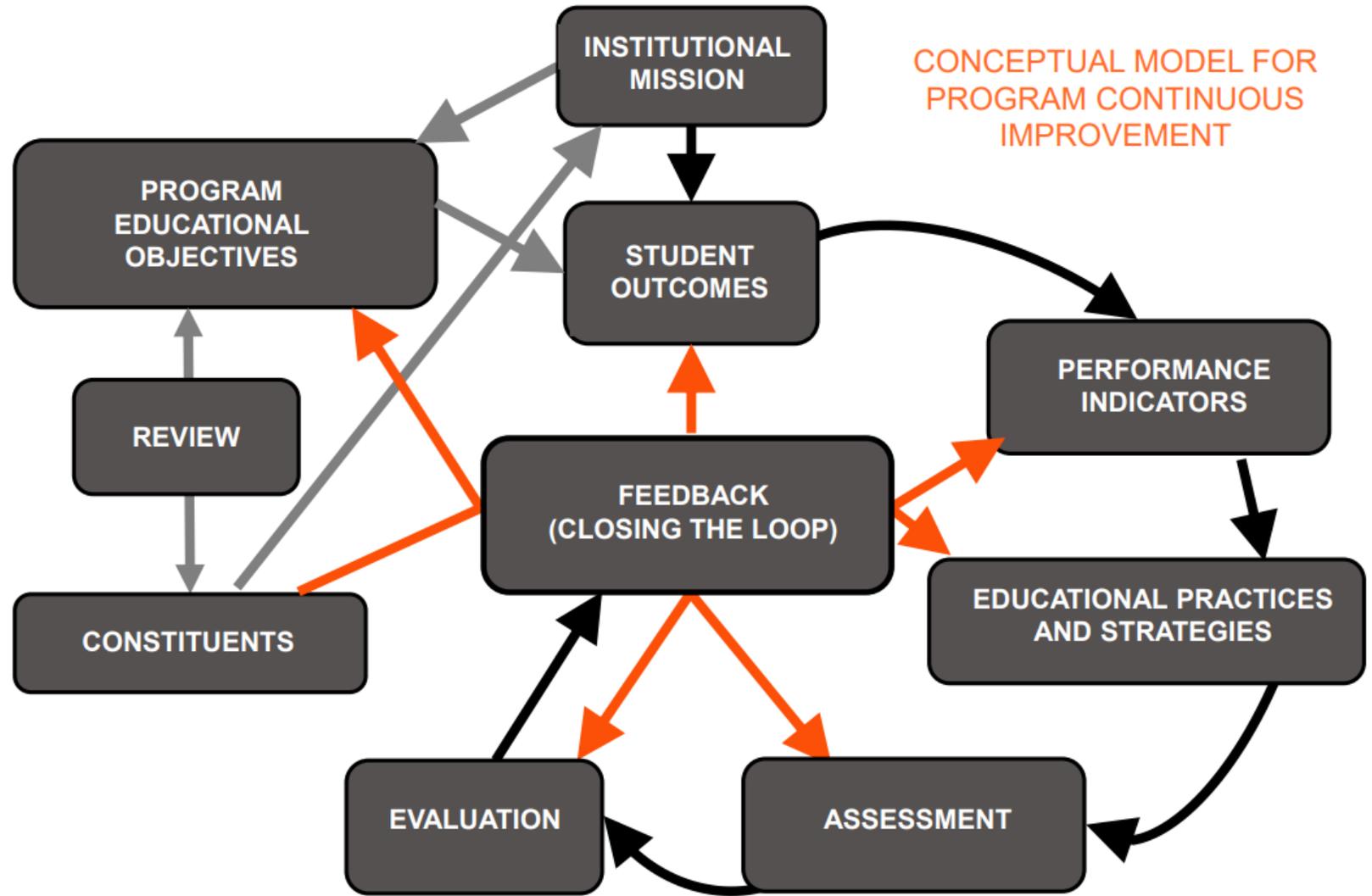


Each program is unique

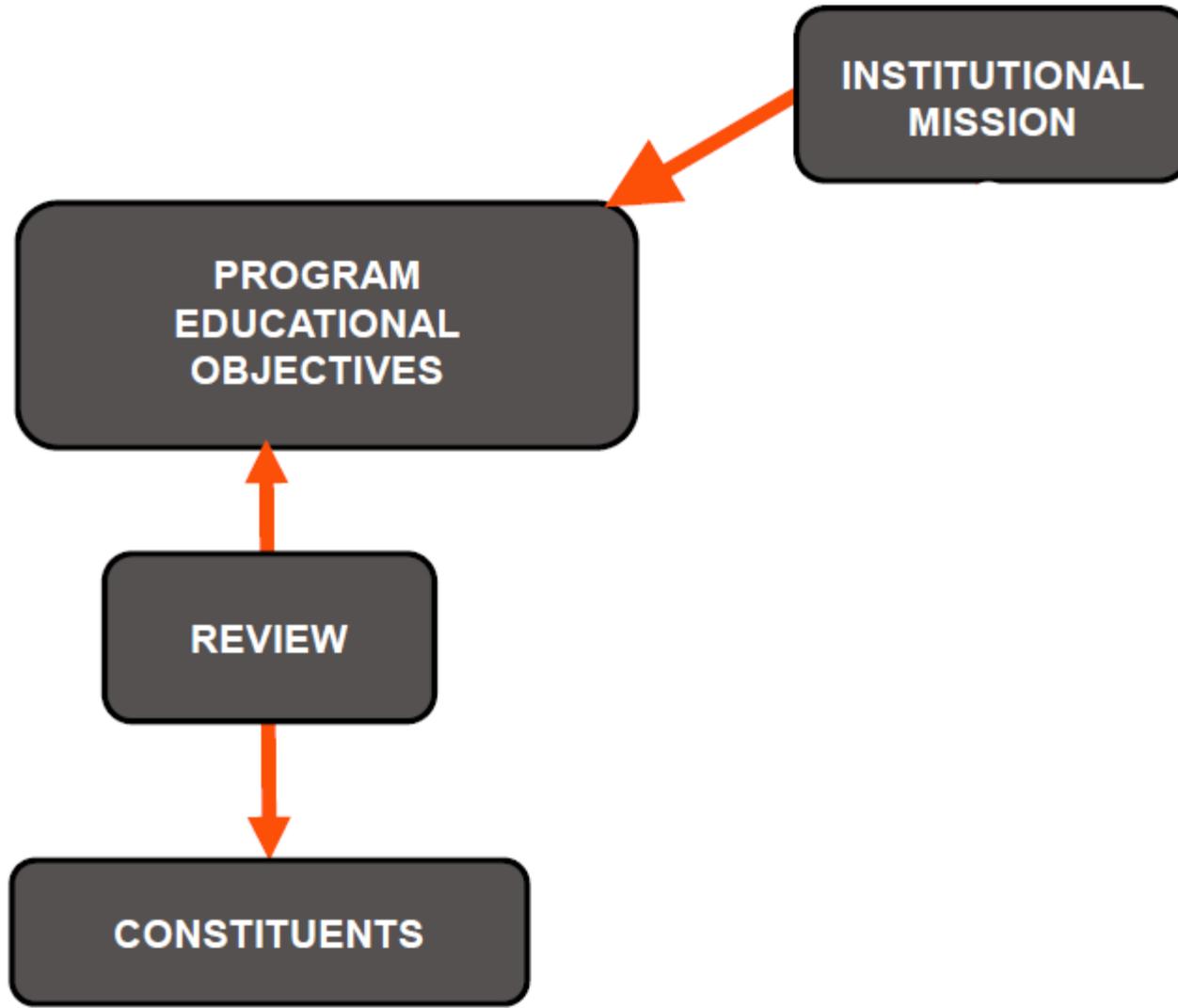
CHALLENGES OF LEADING AND IMPLEMENTING OUR PROGRAM ASSESSMENT

- Create a common ground
- Adapt to the growth
- Build assessment teams
- Automate the data collection and analysis system

CONCEPTUAL MODEL FOR PROGRAM CONTINUOUS IMPROVEMENT



CRITERION 2: PROGRAM EDUCATIONAL OBJECTIVES



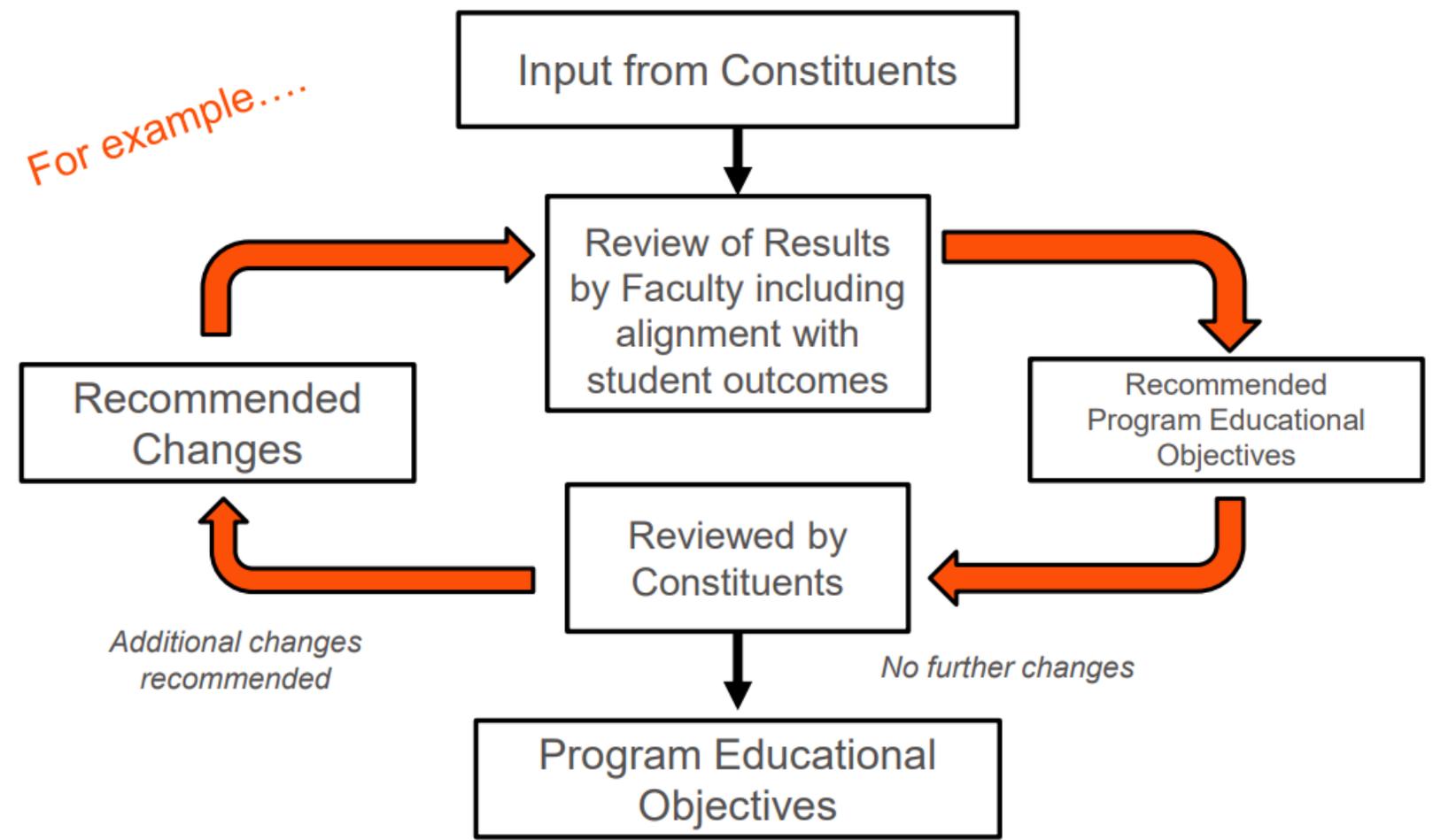
▸ Program Educational Objectives

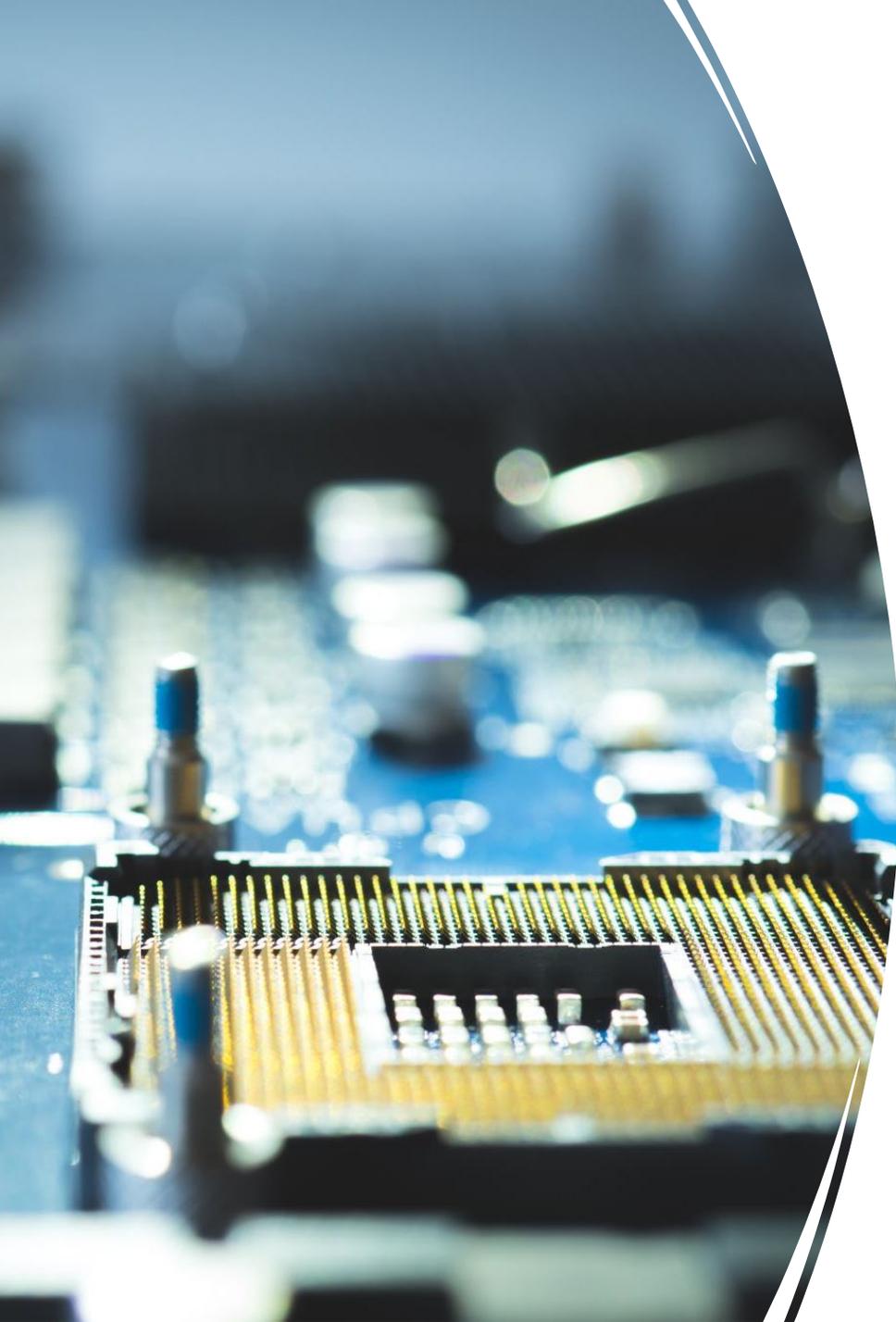
- (PEOs): are broad statements that describe the career and professional accomplishments that the program is preparing its graduates to achieve a few years after graduation.

▸ Program Constituents

- Alumni
- Employers
- Professional organizations

REVIEWING AND REVISING PROGRAM EDUCATIONAL OBJECTIVES





Example: GVSU's CS Program PEOs

Few years after graduation, our typical Computer Science alumni are expected to be computing professionals who:

1. Use technical, communication, and teamwork skills to **solve problems and develop software systems**
2. Continue to develop their **professional knowledge and skills**
3. **Behave ethically** while contributing to their profession and to society



MAPPING OF THE
PROGRAM EDUCATIONAL
OBJECTIVES WITH THE
MISSION OF THE
INSTITUTION

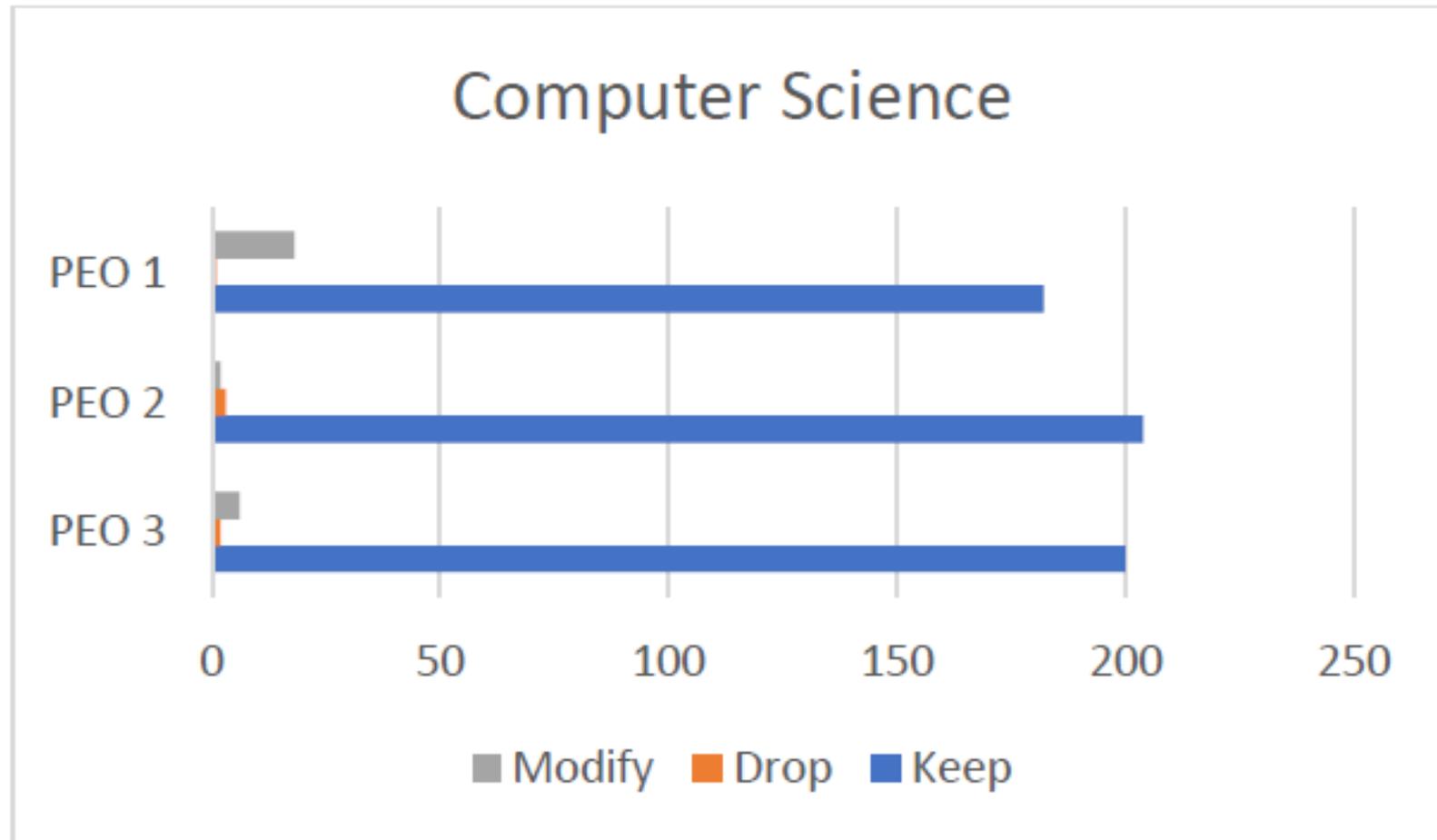
The school mission includes three distinct goals.
Our computer science PEOs align with each of the goals:

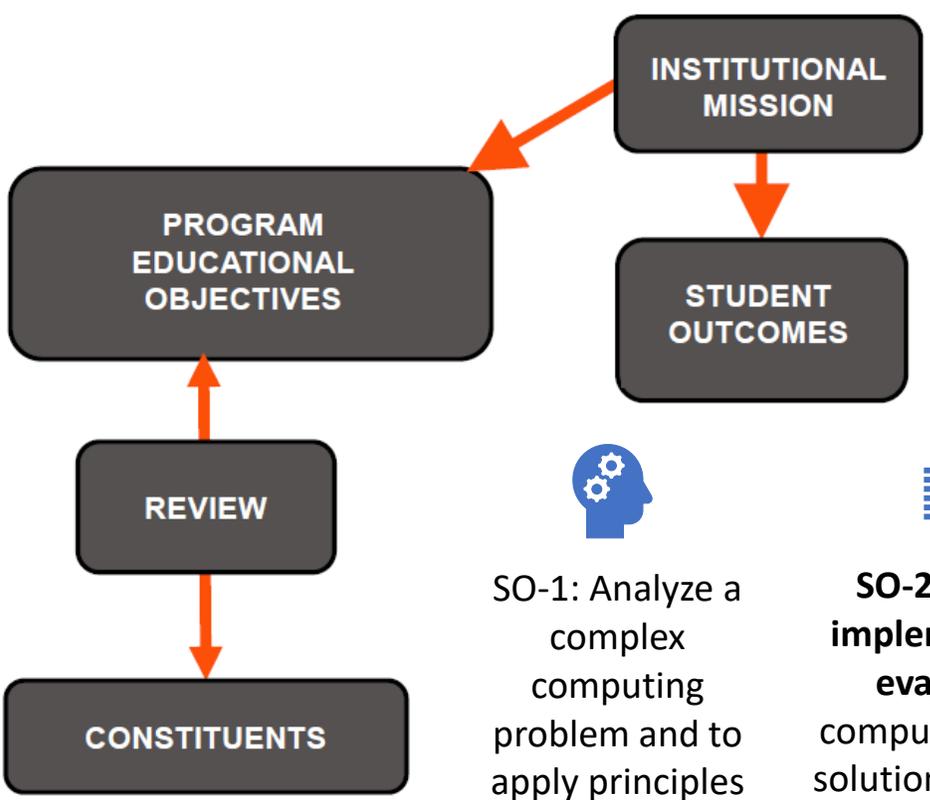
- **Educate students to shape their lives** - One way for alumni to shape their lives is to have the skills needed for life-long learning. This ability aligns with our PEO for alumni to “continue to develop their professional knowledge and skills.”
- **Educate students to shape their professions** – Alumni shape their professions by being productive and effective professionals. This is accomplished by having strong fundamentals and a variety of interpersonal and technical skills. This aligns with our PEO for CS alumni to “use technical, communication, and teamwork skills to solve problems and develop software systems.”
- **Educate students to shape their societies** – This goal aligns with our PEO for alumni to “behave ethically while contributing to their profession and to society.”

Mapping of constituencies needs and PEOs

Constituency Needs	Professional Skills	Life-long Learning	Professional Responsibility
Students			
Ability to be employed in the computing field	X		
Ability to further their careers		X	X
Employers			
Ability to work in teams	X		
Strong communication skills	X		
Problem-solving skills	X		
Ability to adapt to new technologies		X	
Technical skills	X		
Honesty and integrity			X
Professional Organizations			
Computing professionals to be trusted by society			X
Computing professionals to be competent	X		

Number of stakeholders who recommend keeping, modifying or dropping PEOs





CRITERION 3: STUDENT OUTCOMES

- Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program.



SO-1: Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.



SO-2: **Design, implement, and evaluate** a computing-based solution to meet a given set of computing requirements in the context of the program's discipline



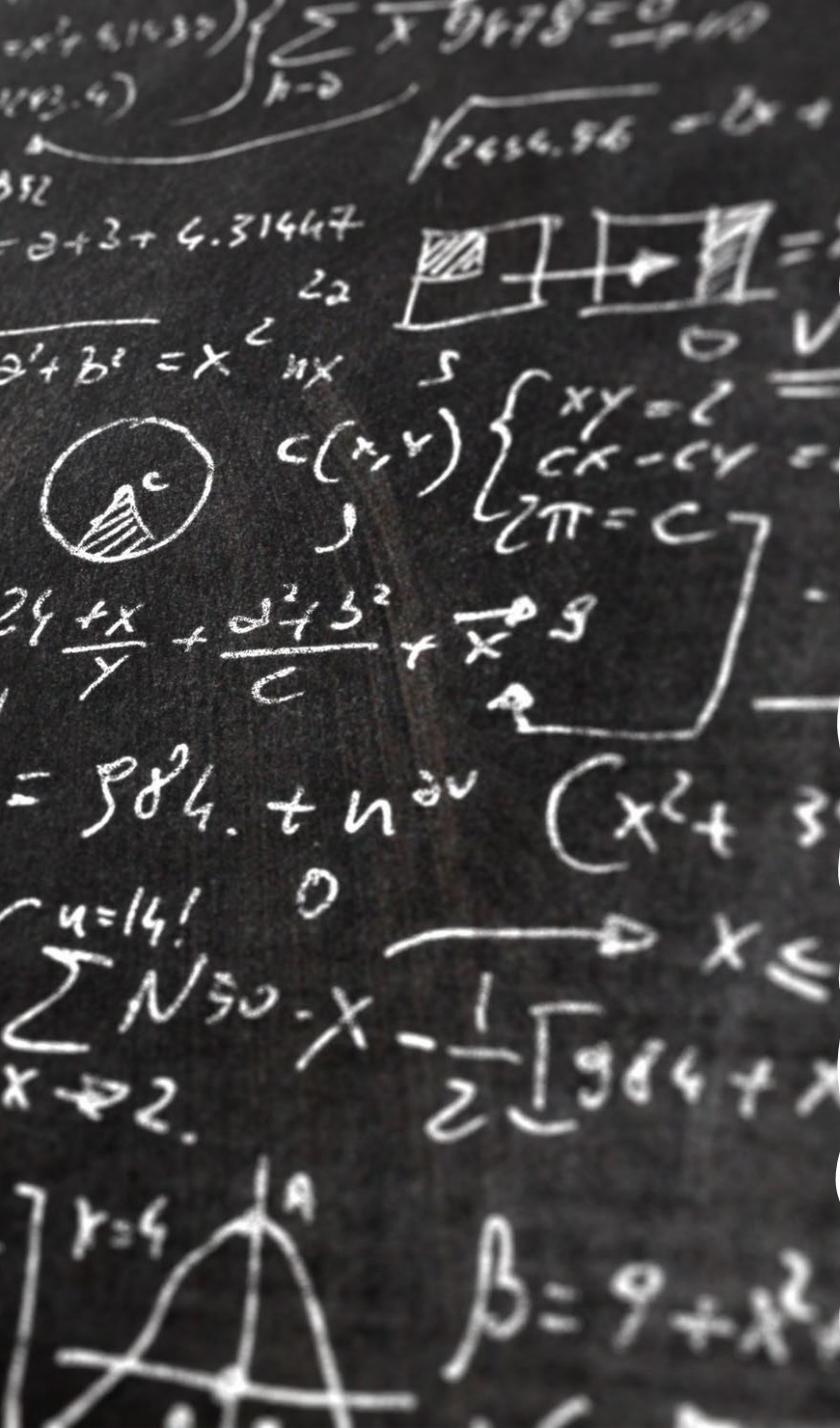
SO-3: Communicate effectively in a variety of professional contexts.



SO-4: Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.



SO-5: Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.



CRITERION 4: CONTINUOUS IMPROVEMENT

- The program must regularly use **appropriate, documented processes** for **assessing and evaluating** the extent to which the student outcomes are being attained.
- The results of these evaluations **must be systematically utilized as input for the program's continuous improvement actions**.
- Other available information may also be used to assist in the continuous improvement of the program.

Previous Practices of Assessing the Student Outcomes (SOs)

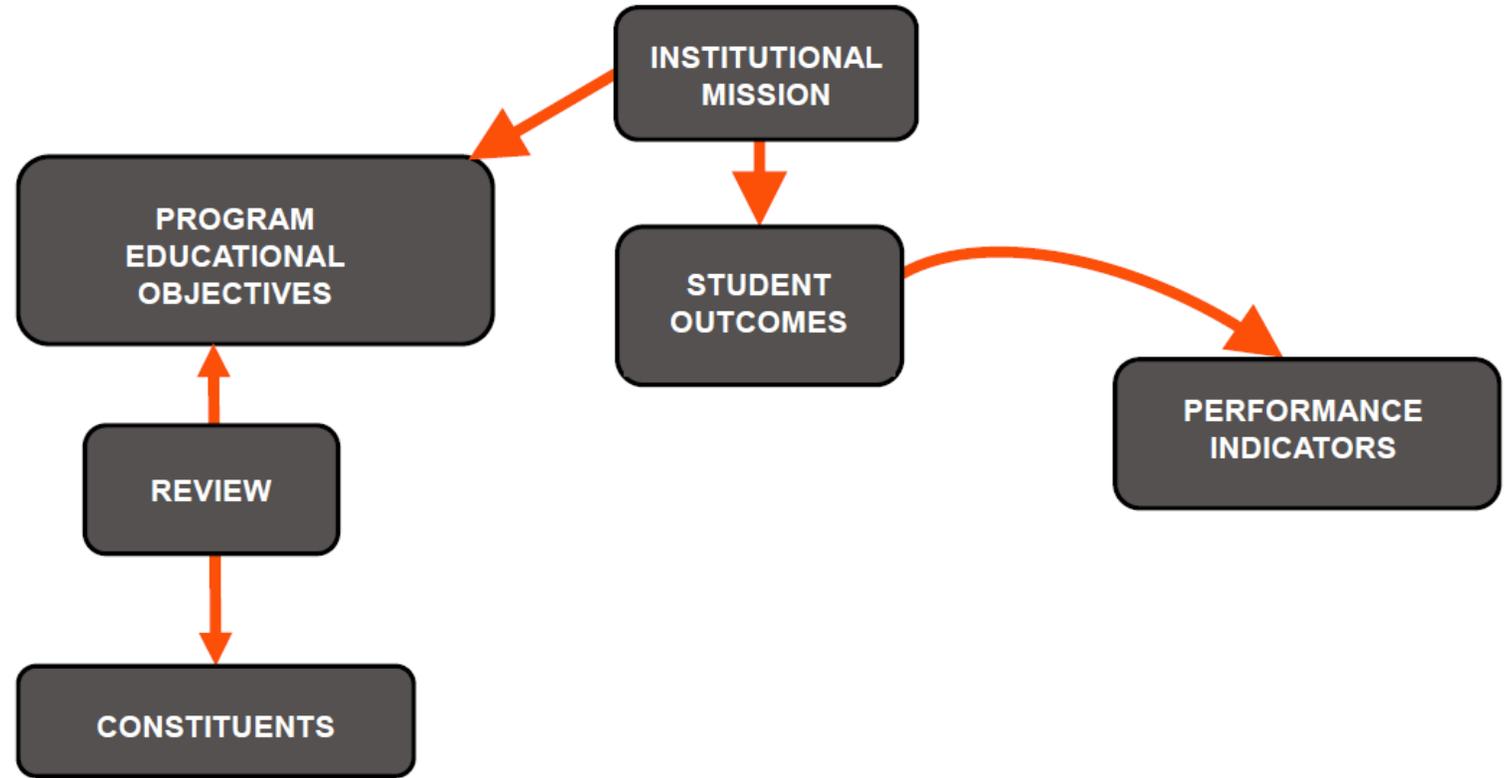
SOURCE	TERM	YEAR	CRITERIA	BELOW	MEETS	EXCEEDS	ABOVE M+E	N	BELOW%	MEETS%	EXCEEDS%	ABOVE% M+E
CIS241	W	2018	Analysis	9	32	28	60	69	13%	46%	41%	87%
CIS241	W	2018	Development	7	9	53	62	69	10%	13%	77%	90%
CIS241	W	2018	Analysis	16	31	22	53	69	23%	45%	32%	77%
CIS241	W	2018	Design	4	3	62	65	69	6%	4%	90%	94%
CIS241	F	2019	Communication	3	9	18	27	30	10%	30%	60%	90%
CIS241	F	2019	Analysis	2	12	16	28	30	7%	40%	53%	93%
CIS241	F	2019	Development	4	5	21	26	30	13%	17%	70%	87%
CIS241	F	2019	Analysis	7	11	12	23	30	23%	37%	40%	77%
CIS241	F	2019	Design	2	4	24	28	30	7%	13%	80%	93%
CIS263	F	2015	Analysis	4	16	40	56	60	7%	27%	67%	93%
CIS263	F	2015	Analysis	10	20	30	50	60	17%	33%	50%	83%
CIS263	F	2015	Analysis	8	30	18	48	56	14%	54%	32%	86%
CIS263	F	2015	Design	13	10	35	45	58	22%	17%	60%	78%
CIS263	W	2019	Analysis	15	3	1	4	19	79%	16%	5%	21%
CIS263	W	2019	Analysis	3	4	11	15	18	17%	22%	61%	83%
CIS290	W	2020	Responsibilities	3	32	13	45	48	6%	67%	27%	94%
CIS290	W	2020	Communication	0	25	23	48	48	0%	52%	48%	100%

	Analysis	Communication	Design	Development	Responsibilities	Teamwork
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Surveys						
Internship Supervisor Survey	99%	99%			100%	100%
Senior Exit Survey		67%		66%	56%	82%
General Education Report		35%				49%
Required Courses						
CIS162	88%		69%	86%		
CIS163	81%	78%	72%			
CIS241	83%	89%	94%	88%		
CIS263	52%					
CIS290		100%			88%	
CIS343	92%	91%		94%		
CIS350	77%	92%	83%	95%	98%	87%
CIS351	87%		86%			
CIS353	80%		81%			100%
CIS452	74%		100%	85%		
CIS457	91%			90%	95%	
CIS467		97%		97%	95%	94%

No. of computer science students who meet & exceeds expectations for each student outcome (2017-2020)

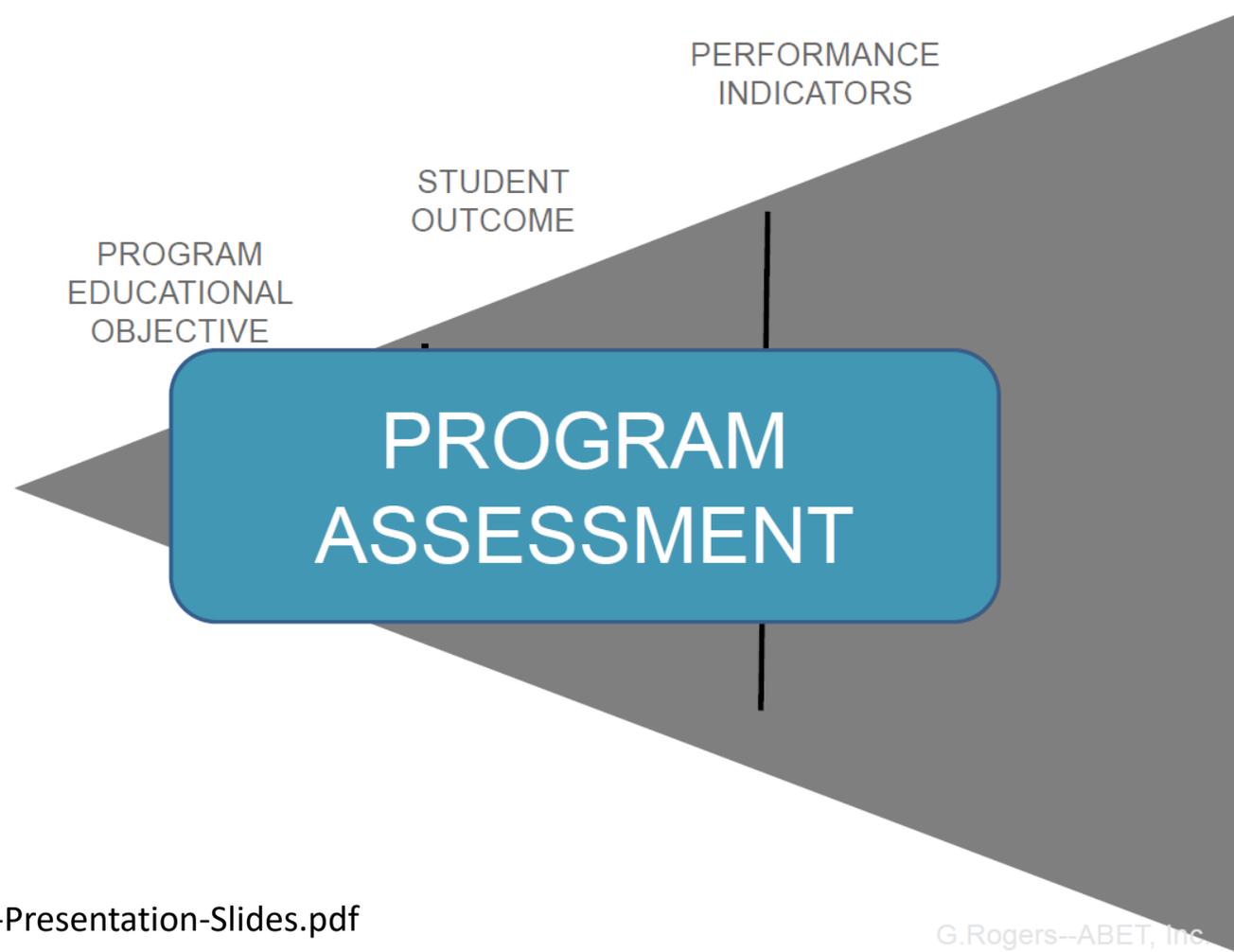
NEW PRACTICES: PERFORMANCE INDICATORS



PROGRAM ASSESSMENT

- This shows how the student outcomes prepare graduates to attain the program educational objectives.

- Students should be able to:
 <<action verb>> <<something>>
- Learner centered
- Measurable



PROGRAM ASSESSMENT

PERFORMANCE INDICATORS

STUDENT OUTCOMES

PROGRAM EDUCATIONAL OBJECTIVE

Use technical, communication, and teamwork skills to apply cybersecurity principles to protect systems and data from a variety of threats.

SO-2: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

SO2-PI-1: Design a discipline-specific computing-based solution that meets client needs and constraints.

SO2-PI-2: Implement a discipline-specific solution using appropriate techniques and technology.

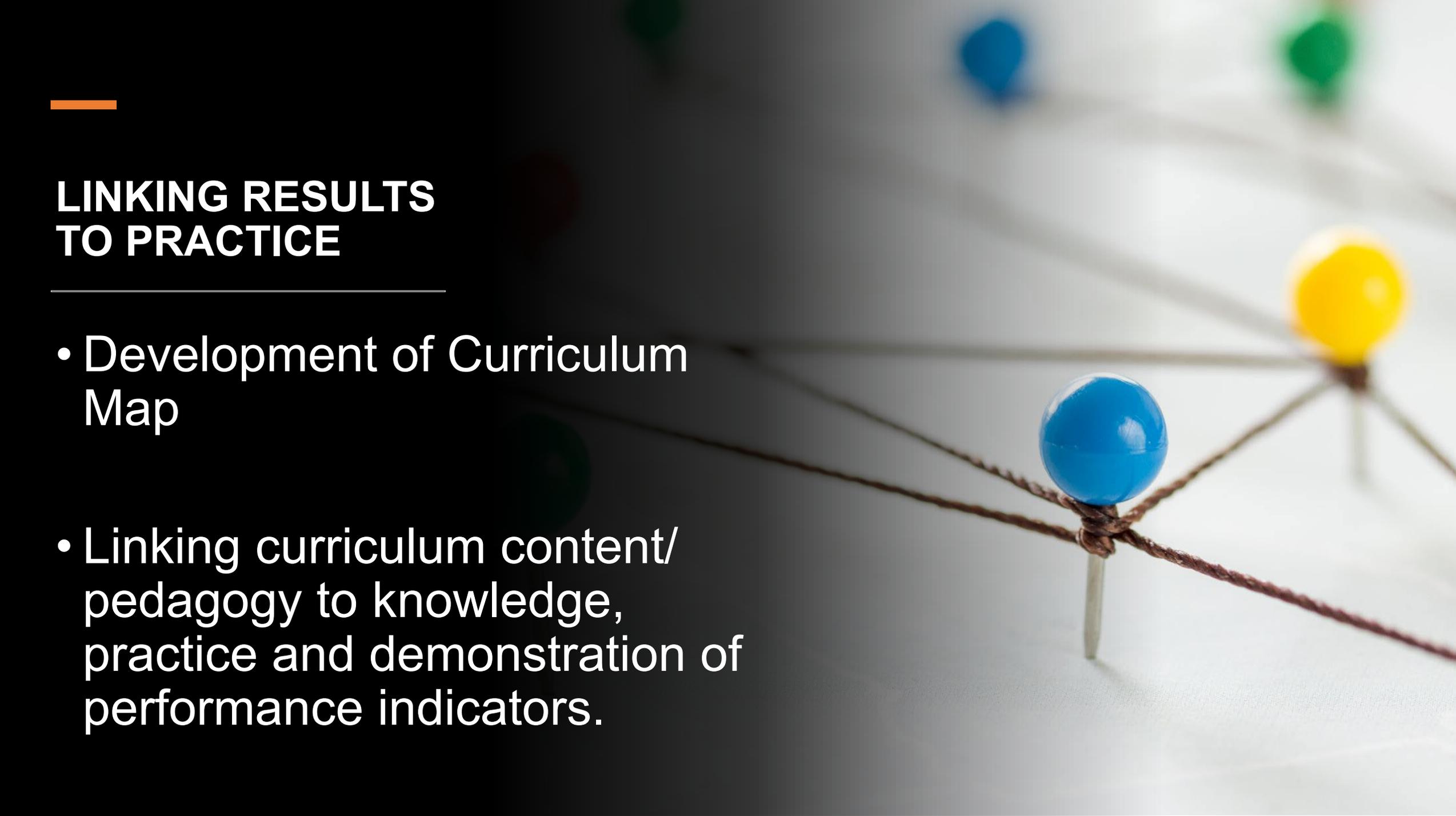
SO2-PI-3: Evaluate the solution to prove that it meets the given requirements in a discipline-related situation.

Example: SO2

SO-2: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

Performance Indicators for the CS Program

Perf. Criteria	Criterion 3 Student Outcomes	Performance Indicators (PIs)
SO1: Analysis	SO1. Analyze a <u>complex</u> computing problem and to apply principles of computing and other relevant disciplines <u>to identify solutions</u> .	SO1-PI-1: Identify the various components of the computing problem.
		SO1-PI-2: Apply principles of computing and other relevant disciplines to formulate the possible solutions.
		SO1-PI-3: Justify a viable solution to the problem.
SO2: Design	SO2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	SO2-PI-1: Design a discipline-specific computing-based solution that meets client needs and constraints.
		SO2-PI-2: Implement a discipline-specific solution using appropriate techniques and technology.
		SO2-PI-3: Evaluate the solution to prove that it meets the given requirements in a discipline-related situation.
SO3: Communication	SO3. Communicate effectively in a variety of professional contexts.	SO3-PI-1: Explain technical concepts orally using terminology appropriate to audience.
		SO3-PI-2: Explain technical concepts in writing using terminology appropriate to audience.
		SO3-PI-3: Use a logical organizational pattern in an oral presentation that enhances understanding.
		SO3-PI-4: Use a logical organizational pattern in a written document that enhances understanding.
SO4: Responsibilities	SO4. Recognize professional responsibilities and make informed judgments in computing practice based on <u>legal</u> and <u>ethical principles</u> .	SO4-PI-1: Recognize the responsibilities inherent to the profession based on a discipline-specific code of ethics.
		SO4-PI-2: Recognize legal responsibilities inherent to the profession.
		SO4-PI-3: Justify decisions in computing practice based on legal and ethical principles.
		SO4-PI-4: Assess local and global impacts of computing solutions on individuals, organizations and society.
SO5: Teamwork	SO5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.	SO5-PI-1: Participates in the establishment of goals and workplan of the team.
		SO5-PI-2: Contribute to a collaborative team effort.
SO6: Development	SO6. Apply computer science theory and software development fundamentals to produce computing-based solutions. [CS]	SO6-PI-1: Determine the most appropriate data structures needed to solve a problem.
		SO6-PI-2: Analyze whether a given algorithm provides an efficient and effective solution to solve a problem.
		SO6-PI-3: Develop a computing solution using an appropriate programming

A network diagram with several nodes connected by lines. The nodes are represented by colored spheres: a blue sphere in the foreground, a yellow sphere to its right, and a green sphere further back. The lines are thin and grey. The background is a light, textured surface.

LINKING RESULTS TO PRACTICE

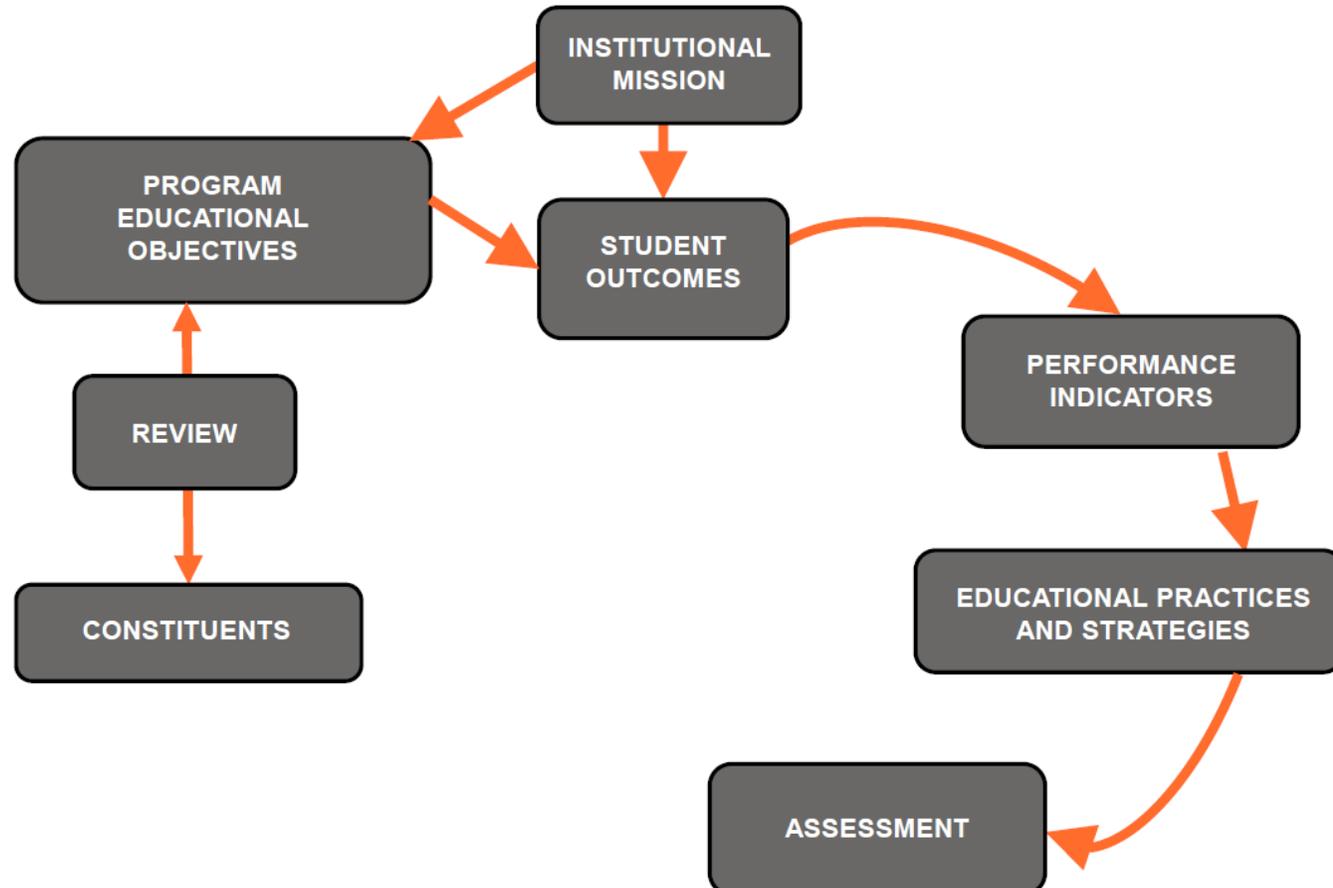
- Development of Curriculum Map
- Linking curriculum content/ pedagogy to knowledge, practice and demonstration of performance indicators.

PURPOSE OF CURRICULUM MAP

- Demonstrates the **alignment** of the curriculum to student outcomes/performance indicators
- Enhances decisions about where to **collect** data for formative and summative assessment
- **Guides** the evaluation process and decision-making about curriculum improvements

Perf Criteria	Criterion 3 Student Outcomes (SOs)	Performance Indicators (PIs)	Introduced (I)	Reinforced (R)	Mastery (M)
SO1: Analysis	SO1. Analyze a <u>complex</u> computing problem and to apply principles of computing and other relevant disciplines <u>to identify solutions</u> .	SO1-PI-1: Identify the various components of the computing problem.	353	343, 350, 351	452, 457
		SO1-PI-2: Apply principles of computing and other relevant disciplines to formulate the possible solutions.	353	343, 350	241, 452, 457
		SO1-PI-3: Justify a viable solution to the problem.	353	350	452, 457
SO2: Design	SO2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	SO2-PI-1: Design a discipline-specific computing-based solution that meets client needs and constraints.	353	350	452, 457
		SO2-PI-2: Implement a discipline-specific solution using appropriate techniques and technology.	162, 353	350, 351	452, 457
		SO2-PI-3: Evaluate the solution to prove that it meets the given requirements in a discipline-related situation.	353	350, 351	452, 457
SO3: Communication	SO3. Communicate effectively in a variety of professional contexts.	SO3-PI-1: Explain technical concepts orally using terminology appropriate to audience.	350	???	467
		SO3-PI-2: Explain technical concepts in writing using terminology appropriate to audience.	350	343, 452	467
		SO3-PI-3: Use a logical organizational pattern in an oral presentation that enhances understanding.	350	???	467
		SO3-PI-4: Use a logical organizational pattern in a written document that enhances understanding.	163, 350	343	467
SO4: Responsibilities	SO4. Recognize professional responsibilities and make informed judgments in computing practice based on <u>legal</u> and <u>ethical principles</u> .	SO4-PI-1: Recognize the responsibilities inherent to the profession based on a discipline-specific code of ethics.	350	???	290, 467
		SO4-PI-2: Recognize legal responsibilities inherent to the profession.	???	290	???
		SO4-PI-3: Justify decisions in computing practice based on legal and ethical principles.	???	290	467
		SO4-PI-4: Assess local and global impacts of computing solutions on individuals, organizations and society.	???	???	290
SO5: Teamwork	SO5. Function effectively as a member or leader of a	SO5-PI-1: Participates in the establishment of goals and workplan of the team	350	???	452, 467

HOW DO WE KNOW WHAT STUDENTS KNOW?



- “...assessment uses relevant direct, indirect, quantitative and qualitative measures as appropriate to the outcome being measured.”

METHODS and TYPES OF ASSESSMENT

DIRECT

- Exit and other interviews
- Standardized exams
- Locally developed exams
- Portfolios
- Simulations
- Performance Appraisal
- External examiner
- Oral exams

INDIRECT

- Written surveys and questionnaires
- Exit and other interviews
- Archival records
- Focus groups





HOW CAN BLACKBOARD'S
ASSESSMENT SOLUTION HELP YOU?

PRIMARY ASSESSMENT / INSIDE-THE-COURSE EVALUATION OF STUDENTS

Instructors score their own students using grading rubrics or in-course assessment rubrics with rows aligned to learning outcomes OR using Learn tests with questions aligned to learning outcomes OR aligning grade center columns to learning outcomes.

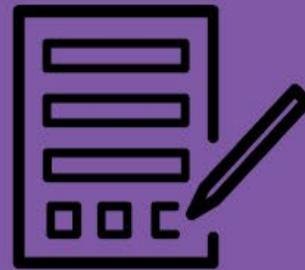
Learning
Outcomes in
Blackboard Learn



Blackboard
Learn Courses



Tests & Rubrics
& Grade Center
Columns



Course Instructor
Evaluates All Students



EAC Generates
Analysis &
Performance Reports



PRIMARY (ULTRA) – ALIGNMENTS TO RUBRIC ROWS, EXAM QUESTIONS, GRADE CENTER COLUMNS

Rubric Rows, Test Questions, and Grade Center Columns aligned to Learn Goals

Content and Settings

Test Content

Question 1

What is 2 + 2?

Choose at least one correct answer

A 3

B 4

C 5

D 6

Question 2

10 points

Goals & standards

Aligned with questions (1)

L1.GNED.B.I.C.03.00
Question 1
L1.GNED.B.I.C.03.00: QUANTITATIVE RE...

Ultra Assessment Course

Written Communication Rubric

Rubric Type: Percentage

Criteria	Benchmark 1	Milestone 2	Milestone3	Capston
Context of and Purpose for Writing Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).	100% Demonstrates minimal attention to context, audience, purpose, and to the assigned task(s) (e.g., expectation of instructor or self as audience).	50% Demonstrates awareness of context, audience, purpose, and to the assigned task(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	75% Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the assignment with purpose, and context).	100% Demonstrates audience awareness and a clear focus on the assigned task(s) as of the w
50% of total grade				
Aligned with 2 goals				
Content Development	100% Uses appropriate and relevant content to develop simple ideas in some parts of the work.	50% Uses appropriate and relevant content to develop and explore ideas through most of the work.	75% Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	100% Demonstrates audience responsi task(s) ai of the w
50% of total grade				
Align with goals				

Goals & standards

Aligned with criteria (2)

L1.GNED.B.I.C.01.00
L1.GNED.B.I.C.01.00: EFFECTIVE COMM...

L1.GNED.B.I.C.01.01
L1.GNED.B.I.C.01.01: WRITTEN COMM...

Bb Data Offline Assignment Ultra Course

Goals & standards

Offline submission

You chose to collect submissions online for this assessment. Though students can't make submissions online, they can view their grades for this assessment online.

Aligned with assessment (2)

L1.GNED.B.I.C.01.00
L1.GNED.B.I.C.01.00: EFFECTIVE COMM...

L1.GNED.B.I.C.06.00
L1.GNED.B.I.C.06.00: INFORMATION LI...

Current Practices of Assessing the Student Outcomes (SOs)

The screenshot displays the Blackboard LMS interface. The browser address bar shows lms.gvsu.edu/ultra/tools. The left sidebar contains the following navigation items: Activity Stream, Courses, Organizations, Calendar, Messages (10), Grades, Assist (NEW), Tools (highlighted in blue), and Sign Out. Below the sidebar are links for Privacy and Terms. The main content area is titled "Tools" and features a section for "Blackboard Tools" with five tool cards: Content Collection (with a printer icon), Goals (with a trophy icon), Goal Performance (with a line graph icon), Application Authorization (with a rocket icon), and EAC Visual Data (with the EAC logo).

HOW CAN
BLACKBOARD'S
ASSESSMENT
SOLUTION HELP
US?

Current Practices of Assessing the Student Outcomes (SOs)- (Con't)

← → ↻ lms.gvsu.edu/ultra/tools

Tools

Blackboard Tools

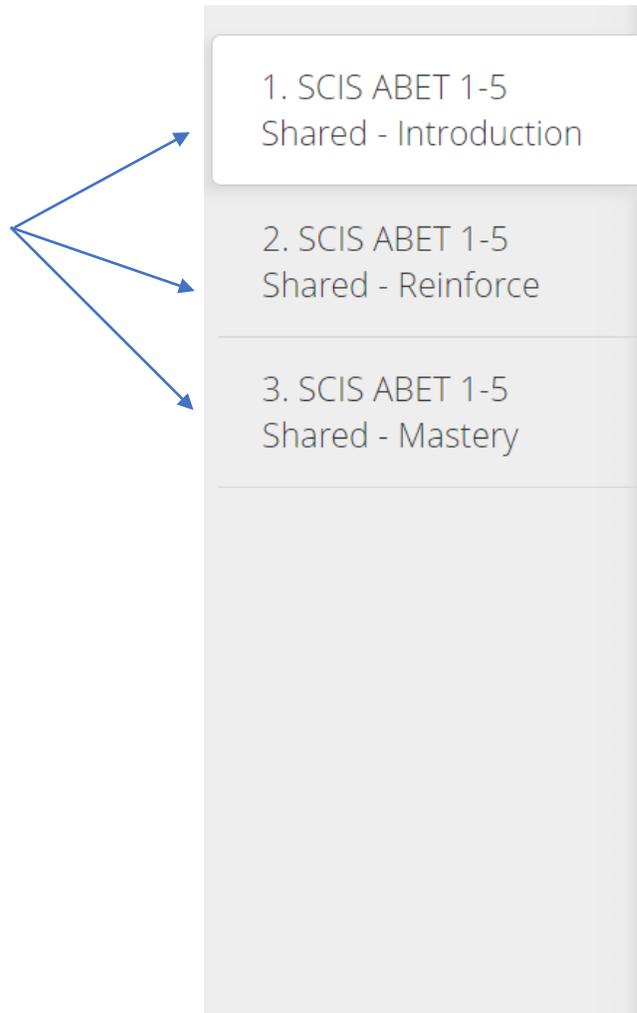
- Content Collection
- Goals
- Goal Performance
- Application Authorization
- EAC Visual Data

SCIS ABET 1-5 Shared Goals

SCIS ABET 6 Program Goals Levels

Goals for: SCIS ABET 1-5 Shared Goals 1.

SCIS ABET 1-5 Shared - Introduction



Goals for: **SCIS ABET 1-5 Shared Goals** | **1. SCIS ABET 1-5 Shared - Introduction**

- ❖ SCIS.ABET.INTRO.PLO.01.00 - SCIS.ABET.INTRO.PLO.01.00: INTRO ABET 1 ANALYSIS - Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. ✓
- ❖ SCIS.ABET.INTRO.PLO.02.00 - SCIS.ABET.INTRO.PLO.02.00: INTRO ABET 2 DESIGN - Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. ✓
- ❖ SCIS.ABET.INTRO.PLO.03.00 - SCIS.ABET.INTRO.PLO.03.00: INTRO ABET 3 COMMUNICATION - Communicate effectively in a variety of professional contexts. ✓
- ❖ SCIS.ABET.INTRO.PLO.04.00 - SCIS.ABET.INTRO.PLO.04.00: INTRO ABET 4 RESPONSIBILITIES - Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles. ✓
- ❖ SCIS.ABET.INTRO.PLO.05.00 - SCIS.ABET.INTRO.PLO.05.00: INTRO ABET 5 TEAMWORK - Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline. ✓

Goals for: SCIS ABET 1-5 Shared Goals 1.

SCIS ABET 1-5 Shared - Introduction

1. SCIS ABET 1-5 Shared - Introduction	Goals for: SCIS ABET 1-5 Shared Goals 1. SCIS ABET 1-5 Shared - Introduction
2. SCIS ABET 1-5 Shared - Reinforce	<ul style="list-style-type: none">SCIS.ABET.INTRO.PLO.01.00 - SCIS.ABET.INTRO.PLO.01.00: INTRO ABET 1 ANALYSIS - Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. ✓
3. SCIS ABET 1-5 Shared - Mastery	<ul style="list-style-type: none">→ SCIS.ABET.INTRO.PLO.01.01 - SCIS.ABET.INTRO.PLO.01.01: ANALYSIS PI 1 - Identify the various components of the problem ✓→ SCIS.ABET.INTRO.PLO.01.02 - SCIS.ABET.INTRO.PLO.01.02: ANALYSIS PI 2 - Apply principles of computing and other relevant disciplines to formulate the possible solutions. ✓→ SCIS.ABET.INTRO.PLO.01.03 - SCIS.ABET.INTRO.PLO.01.03: ANALYSIS PI 3 - Justify a viable solution to the problem. ✓SCIS.ABET.INTRO.PLO.01.04 - SCIS.ABET.INTRO.PLO.01.04: ANALYSIS PI 4 - Justify the recommended solution ⊘
	<ul style="list-style-type: none">SCIS.ABET.INTRO.PLO.02.00 - SCIS.ABET.INTRO.PLO.02.00: INTRO ABET 2 DESIGN - Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. ✓SCIS.ABET.INTRO.PLO.03.00 - SCIS.ABET.INTRO.PLO.03.00: INTRO ABET 3 COMMUNICATION - Communicate effectively in a variety of professional contexts. ✓SCIS.ABET.INTRO.PLO.04.00 - SCIS.ABET.INTRO.PLO.04.00: INTRO ABET 4 RESPONSIBILITIES - ✓

Goals for: SCIS ABET 6 Program Goals Levels 1. SCIS ABET 6 - Introduction

1. SCIS ABET 6 -
Introduction

2. SCIS ABET 6 -
Reinforce

3. SCIS ABET 6 -
Mastery

Goals for: **SCIS ABET 6 Program Goals Levels** | **1. SCIS ABET 6 - Introduction**

⤴ SCIS.ABET.CS.INTRO.PLO.06.00 - SCIS.ABET.CS.INTRO.PLO.06.00: INTRO CS DEVELOPMENT ABET 6 - ✓
Apply computer science theory and software development fundamentals to produce computing-based solutions.

SCIS.ABET.CS.INTRO.PLO.06.01 - SCIS.ABET.CS.INTRO.PLO.06.01: CS DEVELOPMENT PI 1 - ✓
Determine the most appropriate data structures needed to solve a problem.

SCIS.ABET.CS.INTRO.PLO.06.02 - SCIS.ABET.CS.INTRO.PLO.06.02: CS DEVELOPMENT PI 2 - ✓
Analyze whether a given algorithm provides an efficient and effective solution to solve a problem.

SCIS.ABET.CS.INTRO.PLO.06.03 - SCIS.ABET.CS.INTRO.PLO.06.03: CS DEVELOPMENT PI 3 - ✓
Develop a computing solution using an appropriate programming paradigm to solve a problem.

SCIS.ABET.CS.INTRO.PLO.06.04 - SCIS.ABET.CS.INTRO.PLO.06.04: CS DEVELOPMENT PI 4 - ✓
Perform object-oriented analysis, design, and implementation of software systems.

⤵ SCIS.ABET.CY.INTRO.PLO.06.00 - SCIS.ABET.CY.INTRO.PLO.06.00: INTRO CY IMPLEMENTATION ABET 6 - ✓
- Apply security principles and practices to maintain operations in the presence of risks and threats.

⤵ SCIS.ABET.DS.INTRO.PLO.06.00 - SCIS.ABET.DS.INTRO.PLO.06.00: INTRO DS EVALUATION ABET 6 - ✓
Apply theory, techniques, and tools throughout the data analysis science lifecycle and employ the resulting knowledge to satisfy stakeholders' needs.

⤵ SCIS.ABET.IS.INTRO.PLO.06.00 - SCIS.ABET.IS.INTRO.PLO.06.00: INTRO IS MANAGEMENT ABET 6 - ✓



GO

Power of using EAC

Tests

Rubrics

Goals

Settings

Test List (1 of 1 selected)



Test



CourseName



[CIS375- Quiz07](#)

CIS 375 01 - TR - Wireless Networks and Security (W23)

[Take CIS375-Exam02 Here](#)

[CIS654 - Exam02](#)



Take CIS375-Exam02 Here (4/5/2023 - 4/5/2023)

Downloads



— Courses Included

— Summary Statistics

+ Item Analysis

+ Distractors

+ Student Questions

+ Goals Summary

Goals Manager

Courses Included



Course	Instructors	Enrollment	Responses	Percent
CIS 375 01 - TR - Wireless Networks an	El-Said, Mostafa	23	23	100

Summary Statistics



Description	Value	Description	Value
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- Tests
- Rubrics**
- Goals
- Settings

Rubric List (0 of 0 selected)

Rubric	Learning Activity	CourseName
<input type="checkbox"/> Criterion 3 Rubric	Submit Week02 Assignment Here - Criterion 3	CIS 375 - EAC Course Demonstration Template
<input type="checkbox"/> Criterion 2 Rubric	Submit Your "Course Project - Final Project Deliverables"	CIS 375 - EAC Course Demonstration Template



Submit Week02 Assignment Here - Criterion 3
Criterion 3 Rubric (2023-01-28 - 2023-02-02)

Downloads

Target 0.6

STANDARD
 SUMMARY
 FULL
 CURRENT

- ★ Courses Included
- Summary Statistics
- + Row Analysis
- + Student Rows
- + Details
- Levels Of Achievement
- Goals Manager

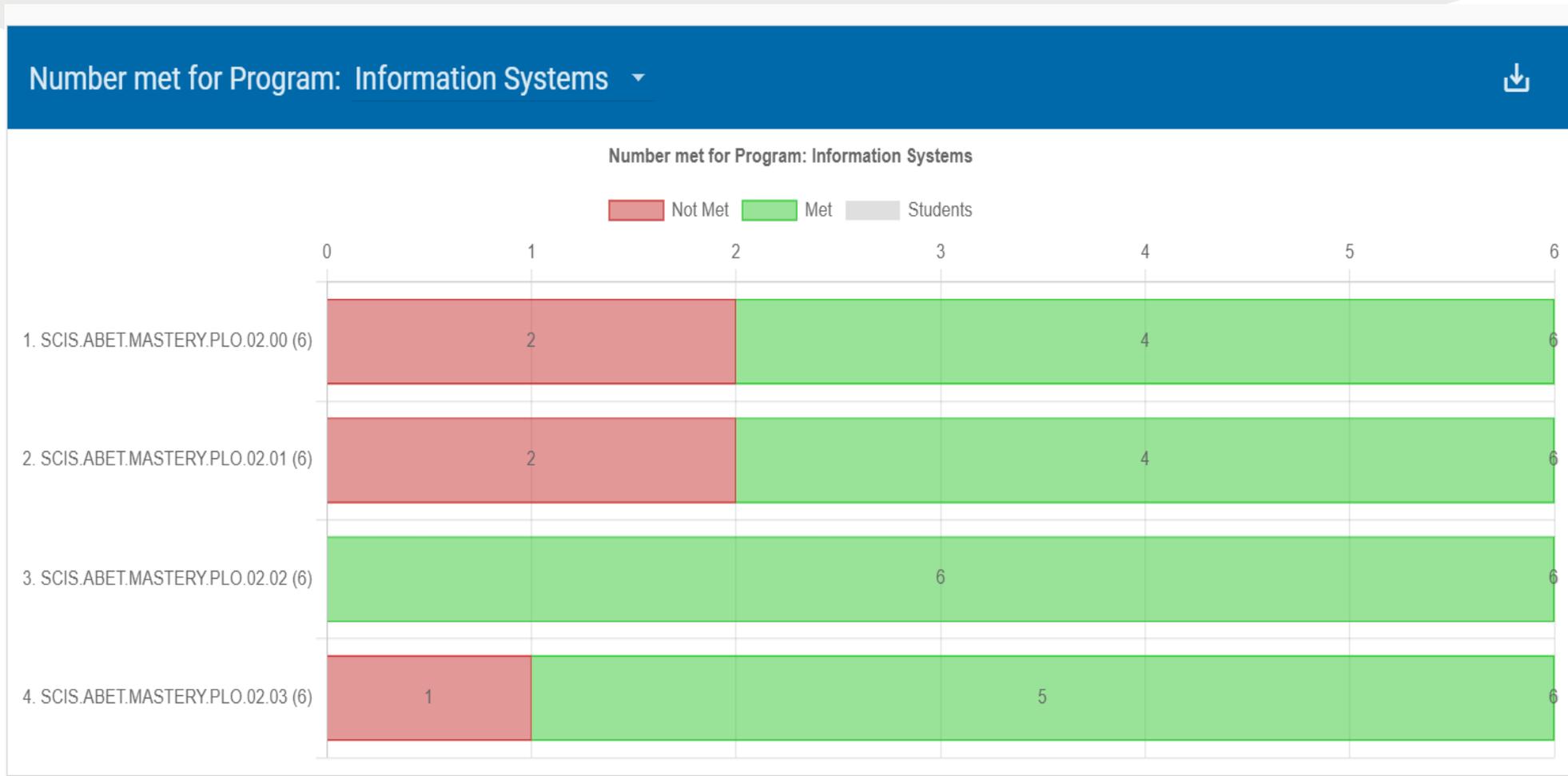
Courses Included

L...	C...	I...	Enrollment	Evaluations	Percent	# Pass	% Pass
Submit We	CIS 375 - I	Grissom, S	7	4	57.14	4	100
Overall			7	4	57.14	4	100

Summary Statistics

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Power of using EAC: NEW GOALS IMPLEMENTATION –REPORT OPENS IN ITS OWN BROWSER TAB





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EAC Live Demo