

## Standard 8: Teaching, Learning and Assessment

### Program Assessment

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## Overview

SETTING THE CONTEXT	ASSESSMENT PROCESS	EVALUATION AND QUALITY IMPROVEMENT
<ul style="list-style-type: none"><li>❑ Terminology</li><li>❑ Programs are different</li><li>❑ Difference between course and program assessment</li><li>❑ Program assessment model</li></ul>	<ul style="list-style-type: none"><li>❑ Mapping courses to student performance indicators</li><li>❑ Assessment methods</li><li>❑ Efficient assessment processes</li></ul>	<ul style="list-style-type: none"><li>❑ Evaluation of student attainment</li><li>❑ Decision-making for continuous improvement</li></ul>

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## Terminology

### SETTING THE CONTEXT

- ❑ Programs are different
- ❑ Difference between course and program assessment
- ❑ Program assessment model

- No consistent language around the assessment of student learning
- Importance of each institution or program to define the terms that will be used for different concepts in the assessment process
- Terms that will be used in this presentation



## Terminology

Program Objectives	Are broad statements, based on needs of stakeholders, which describe what the program's graduates are expected to attain within a few years of graduation.
Student Outcomes	Describe students' skills, knowledge and behaviors that they are expected to demonstrate by the time of program completion.
Performance indicators	Measurable performances that students are expected to demonstrate that indicate that they are attaining the student outcomes.
Assessment	One or more processes that identify, collect, and prepare data to evaluate the attainment of student outcomes
Evaluation	Processes used to interpret the data and evidence accumulated through the assessment process. Determines the extent to which the student outcomes are being attained.
Feedback	Using the results of the evaluation process to make decisions about the quality and efficacy of the learning experience and the assessment processes used.

## Example of Student Outcome with Performance Indicators

Student Outcome: “Students will demonstrate critical thinking skills.”

Ask, “What are the observable knowledge, skills, or attributes that we will look for as evidence that the students have critical thinking skills?”



## Deconstruct the Outcome

Review the outcome:

Although the context for the student performance may vary among courses, the outcome is the same.



Program provision:

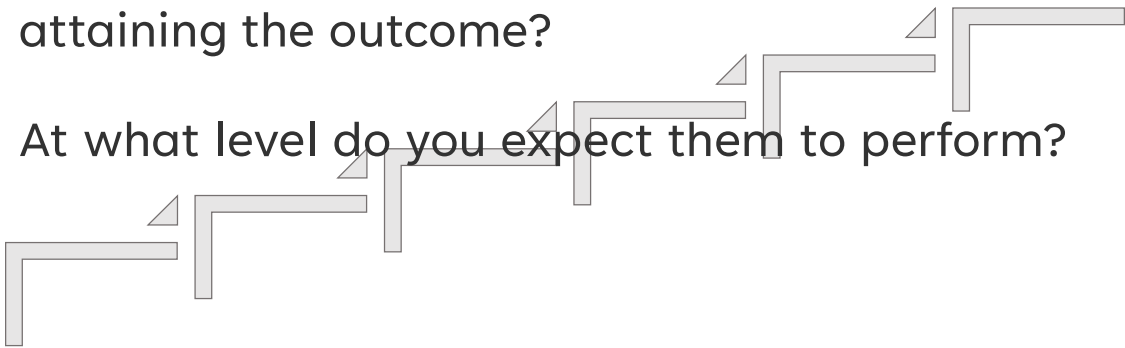
Program must provide opportunities for students to practice and demonstrate critical thinking skills **in a context appropriate to the discipline.**

## Evidence of Performance

Developing performance indicators:

WHAT performance will indicate that they are attaining the outcome?

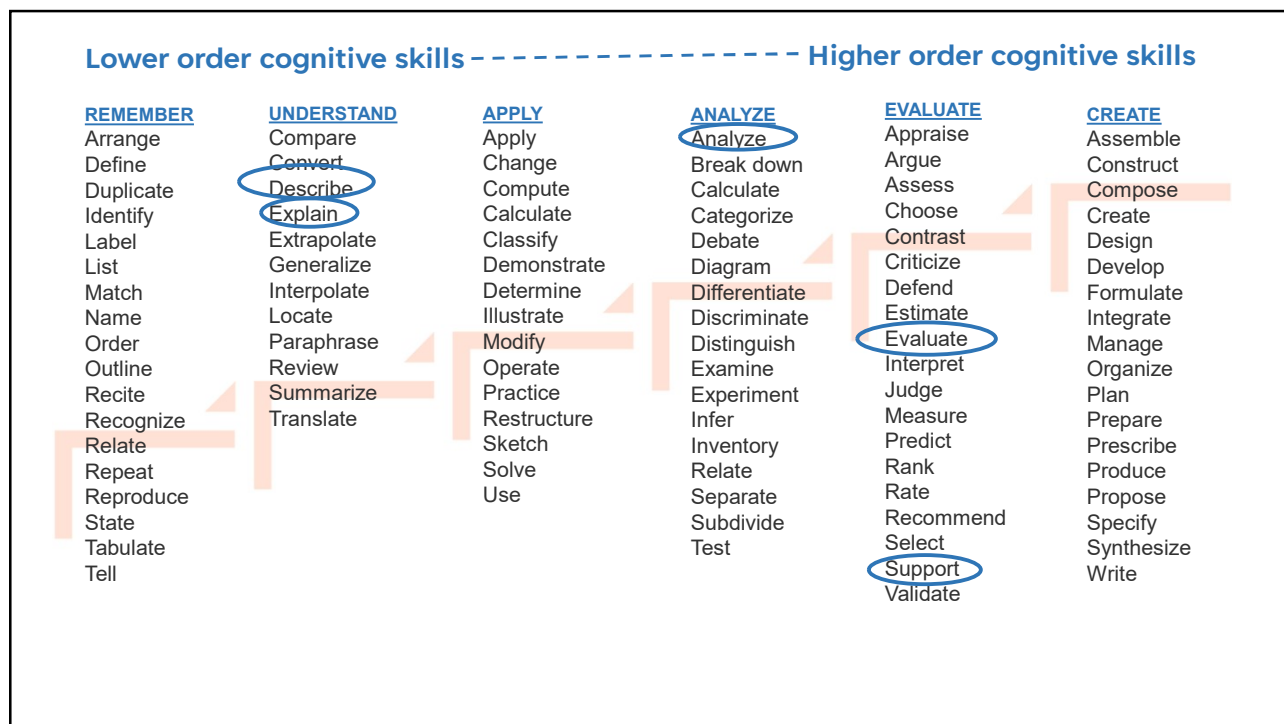
At what level do you expect them to perform?



## Performance Indicators

Students will demonstrate critical thinking skills.

1. Explain the issues around the problem
2. Analyze comparative perspectives
3. Support assumptions when presenting a solution
4. Describe the connection between context and perspectives
5. Evaluate conclusion and consequences



## ☐ Programs are different

### Capitalize on your distinctiveness

SETTING THE CONTEXT

- ☐ Terminology
- ☐ Difference between course and program assessment
- ☐ Program assessment model

- No two programs are the same
  - ✓ Mission
  - ✓ Students
  - ✓ Faculty
  - ✓ Infrastructure (facilities, technology, policies, institutional support)
  - ✓ Constituents
- Learning outcomes can be the same, but each program determines student performances that indicate attainment of the outcomes.

# Course Assessment

Faculty as content expert and facilitator of learning

Faculty as  
content expert  
and facilitator  
of learning

# Program Assessment

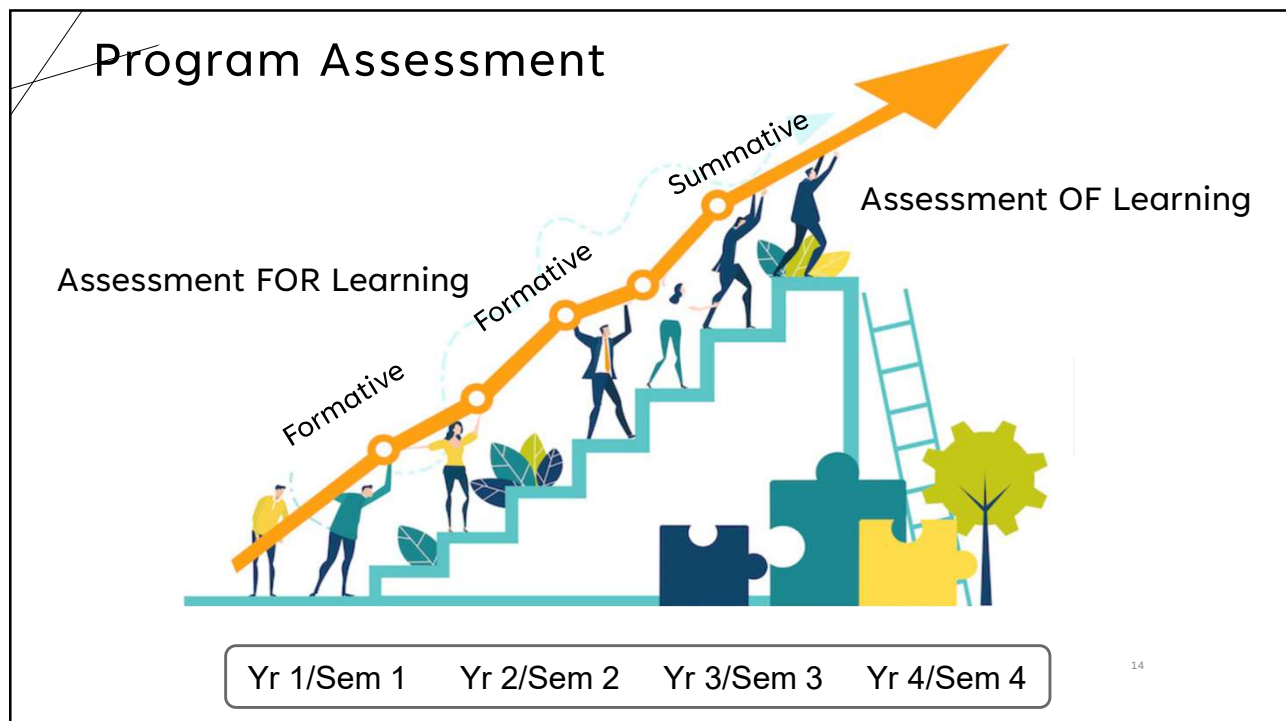
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ENG101	ECT160	PS108L	CNST201	PHYS101	MET405	ELECG	FS E3R
FS PPA	MET103	MA131	ENV101L	CET401	FS S9S	CET411	FSUDIE
MATH136	MATH123	ECET223	CNT420	CET410	CET420	ENV456	ECET479
FS H99	ENG105	MET302	MET406	FS UDIE	MET408	ECET424	ELECCG

Faculty as a member of a learning community

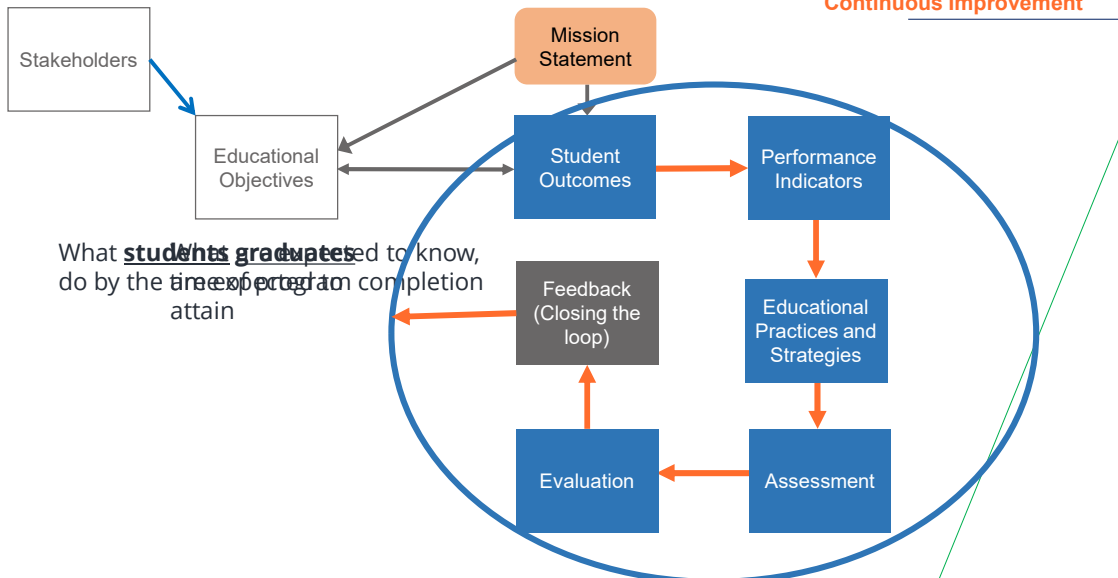
## Faculty as a member of a learning community

## Focus is on the Program

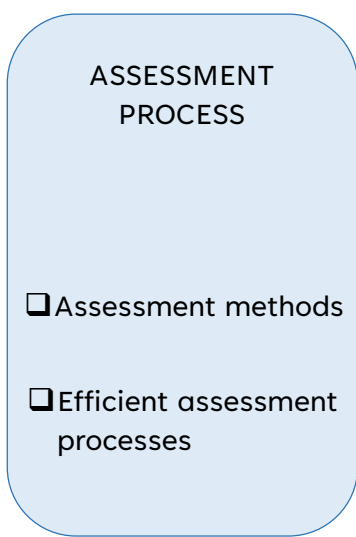
- ✓ Program assessment focuses on the program, not individual courses.
- ✓ Program assessment focuses on program, not individual faculty members.
- ✓ Program assessment focuses on cohort of students, not individual students.



## ❑ Program assessment model



## ❑ Mapping courses to student performance indicators



- ✓ Curriculum alignment
- ✓ Where do students get an opportunity to learn, practice, develop and get feedback on their performance?
- ✓ Enhances decisions about where to collect data
- ✓ Guides continuous improvement decision making



## Mapping courses to student performance indicators

S=Seminar; C=Capstone

	First Year				Second Year				Third Year				Fourth Year			
	BUS 100	BUS 120	BUS 132	BUS 221	BUS 222	BUS 230	BUS 272S	BUS 273	BUS 292	BUS 325	BUS 327	BUS 421	BUS 423S	BUS 424	BUS 491C	BUS 492C
<b>CRITICAL THINKING</b>																
Explain the issues around the business problem	X			X		X		X	X	X	X	X	X	X	X	X
Analyze comparative business perspectives	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Support assumptions when presenting a business solution	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Demonstrate understanding of the connection between context and business perspectives				X			X			X			X		X	X
Evaluate conclusion and consequences				X			X			X			X		X	X
<b>FUNCTION EFFECTIVELY ON A TEAM</b>																
Participate in the establishment of goals and workplan of the team.		X			X			X				X			X	X
Contribute to the development of a collaborative team environment.		X			X			X				X			X	X
Encourage an inclusive team environment.		X			X			X				X			X	X
Exhibit dependability in the achievement of the team's goals.		X			X			X				X			X	X
<b>COMMUNICATE EFFECTIVELY IN WRITING</b>																
Provide supporting details which enhances the quality of the report	X		X		X			X		X	X	X	X		X	X
Use logical organizational pattern which enhances understanding	X		X		X			X		X	X	X	X		X	X
Use language which appropriate to audience analysis	X									X		X	X		X	X
Apply the rules of standard English	X		X		X			X		X	X	X	X		X	X
Use graphics which enhance audience understanding	X				X			X		X			X			X

## Mapping courses to student performance indicators

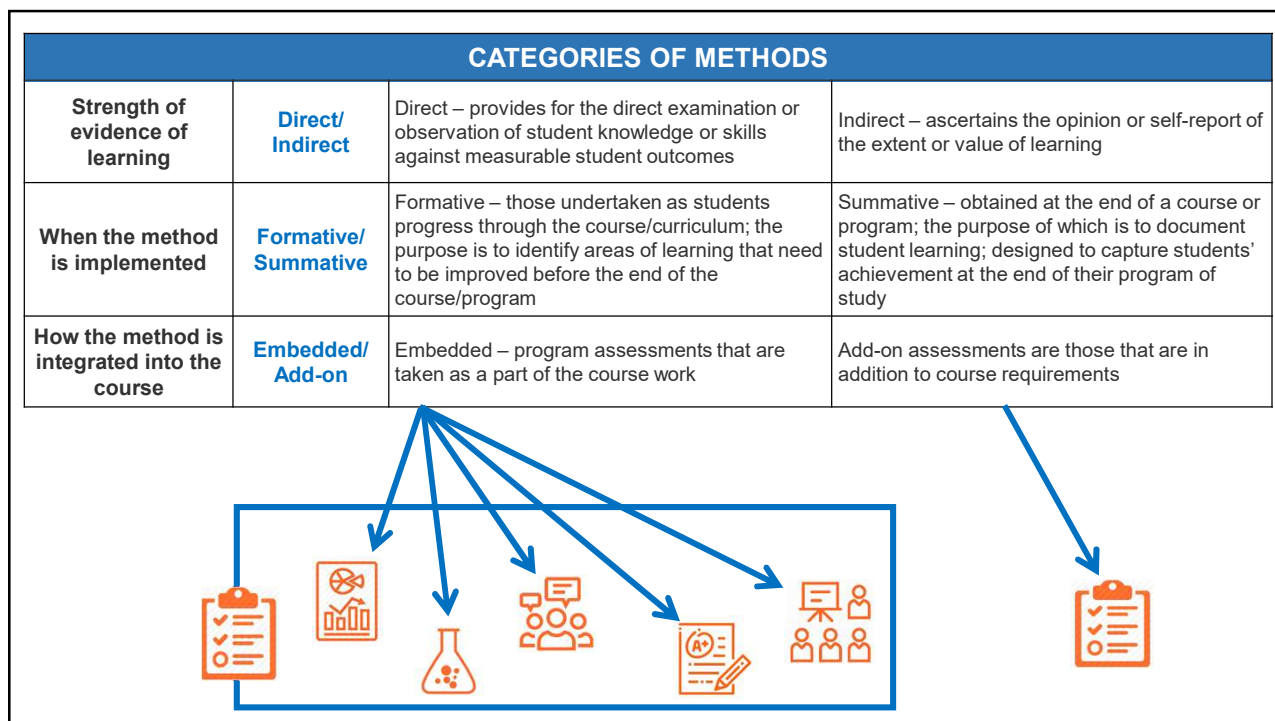
S=Seminar; C=Capstone

	First Year				Sophomore				Junior				Senior			
	BUS 100	BUS 120	BUS 132	BUS 221	BUS 222	BUS 230	BUS 272S	BUS 273	BUS 292	BUS 325	BUS 327	BUS 421	BUS 423S	BUS 424	BUS 491C	BUS 492C
<b>CRITICAL THINKING</b>																
Explain the issues around the business problem	X			X(F)		X		X	X	X(F)	X	X	X(S)	X	X	X
Analyze comparative business perspectives	X	X	X	X(F)	X	X	X	X	X	X(F)	X	X	X(S)	X	X	X
Support assumptions when presenting a business solution	X	X	X	X(F)	X	X	X	X	X	X(F)	X	X	X(S)	X	X	X
Demonstrate understanding of the connection between context and business perspectives				X(F)			X			X(F)			X(S)		X	X
Evaluate conclusion and consequences				X(F)			X			X(F)			X(S)		X	X
<b>FUNCTION EFFECTIVELY ON A TEAM</b>																
Participate in the establishment of goals and workplan of the team.		X(F)			X			X(F)				X			X	X(S)
Contribute to the development of a collaborative team environment.		X(F)			X			X(F)				X			X	X(S)
Encourage an inclusive team environment.		X(F)			X			X(F)				X			X	X(S)
Exhibit dependability in the achievement of the team's goals.		X(F)			X			X(F)				X			X	X(S)
<b>COMMUNICATE EFFECTIVELY IN WRITING</b>																
Provide supporting details which enhances the quality of the report	X(F)		X		X			X		X(F)	X	X	X(S)		X	X
Use logical organizational pattern which enhances understanding	X(F)		X		X			X		X(F)	X	X	X(S)		X	X
Use language which appropriate to audience analysis	X(F)									X(F)		X	X(S)		X	X
Apply the rules of standard English	X(F)		X		X			X		X(F)	X	X	X(S)		X	X
Use graphics which enhance audience understanding	X(F)				X			X		X(F)			X(S)			X

CATEGORIES OF METHODS			
<b>Strength of evidence of learning</b>	<b>Direct/ Indirect</b>	Direct – provides for the direct examination or observation of student knowledge or skills against measurable student outcomes	Indirect – ascertains the opinion or self-report of the extent or value of learning
<b>Direct Methods:</b> <ul style="list-style-type: none"> <li>✓ Standardized tests</li> <li>✓ Faculty or Program developed exams or assignments</li> <li>✓ Portfolios</li> <li>✓ Performance appraisal</li> <li>✓ Oral examination</li> <li>✓ Questionnaires</li> </ul>		<b>Indirect Methods:</b> <ul style="list-style-type: none"> <li>✓ Questionnaires</li> <li>✓ Interviews</li> <li>✓ Focus groups</li> </ul>	

CATEGORIES OF METHODS																	
Strength of evidence of learning	Direct/ Indirect	Direct – provides for the direct examination or observation of student knowledge or skills against measurable student outcomes								Indirect – ascertains the opinion or self-report of the extent or value of learning							
When the method is implemented	Formative/ Summative	Formative – those undertaken as students progress through the course/curriculum; the purpose is to identify areas of learning that need to be improved before the end of the course/program								Summative – obtained at the end of a course or program; the purpose of which is to document student learning; designed to capture students' achievement at the end of their program of study							

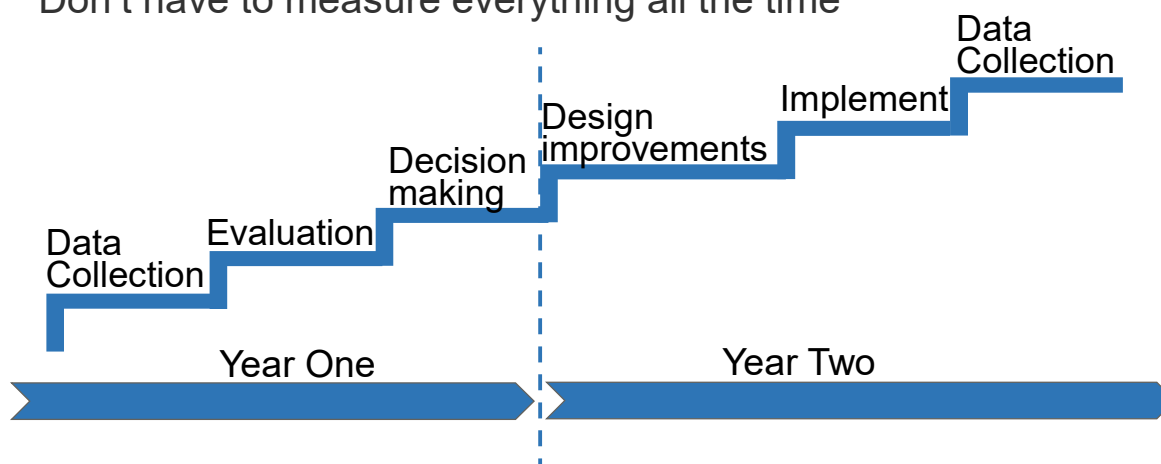
	First Year					Sophomore				Junior				Senior			
	CSCI 1301	CSCI 2200	CSCI 1302	CSCI 2611	CSCI 2210	CSCI 1730	CSCI 2200	CSCI 2720	CSCI 2920	CSCI 3270	CSCI 4270	CSCI 4210	CSCI 4230	CSCI 4235	CSCI 4910	CSCI 4911	
WORK EFFECTIVELY ON A TEAM																	
Participates in the establishment of goals and workplan of the team.					X			X					X			X	
Contributes to the development of a collaborative team environment.					X			X					X			X	
Encourages an inclusive team environment.					X			X					X			X	
Exhibits dependability in the achievement of the team's goals.					X			X					X			X	



## Developing Efficient Processes

Cycles of data collection

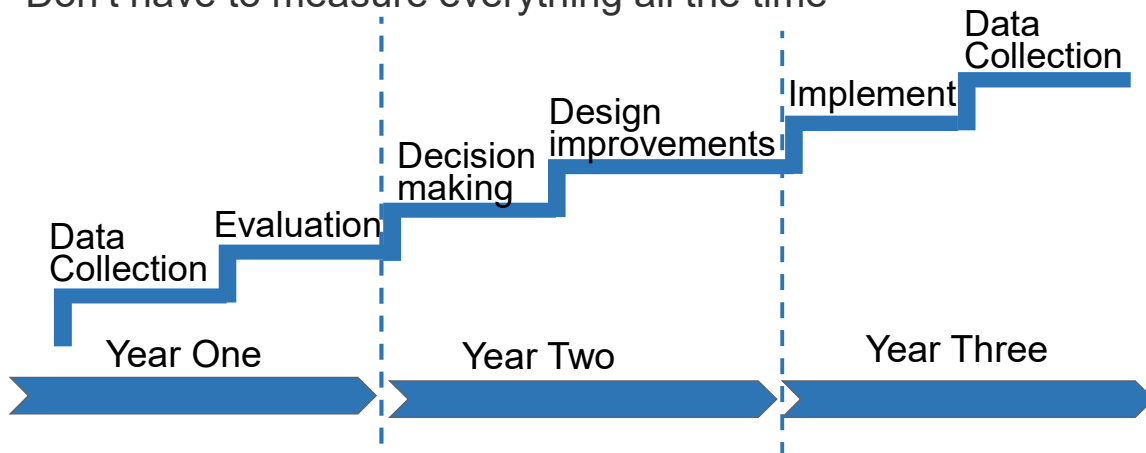
Don't have to measure everything all the time



## Developing Efficient Processes

Cycles of data collection

Don't have to measure everything all the time



STUDENT OUTCOMES	2-yr Assessment Cycle					
	AY 2019	AY 2020	AY 2021	AY 2022	AY 2023	AY 2024
Solve complex problems	A	E/Act	A	E/Act	A	E/Act
Work effectively on a team		A	E/Act	A	E/Act	A
Communicate effectively in writing			A	E/Act	A	E/Act
Demonstrate critical thinking	A	E/Act	A	E/Act	A	E/Act
Demonstrate ethical decision making		A	E/Act	A	E/Act	A

A= Assess; E= Evaluate; Act= Action

Modified 3-yr Cycle						
STUDENT OUTCOMES	AY 2019	AY 2020	AY 2021	AY 2022	AY 2023	AY 2024
Solve complex problems	A	E	Act	A	E	Act
Work effectively on a team		A	E Act	A	E Act	A
Communicate effectively in writing			A	E	Act	A
Demonstrate critical thinking	A	E Act	A	E Act	A	E Act
Demonstrate ethical decision making		A	E	Act	A	E
A= Assess; E= Evaluate; Act= Action						

## ❑ Evaluation of student attainment

### EVALUATION AND QUALITY ENHANCEMENT

#### ❑ Decision-making for quality enhancement

- ✓ Evaluation is a **data-informed**, not **data-driven**, process
- ✓ Data are necessary but not sufficient

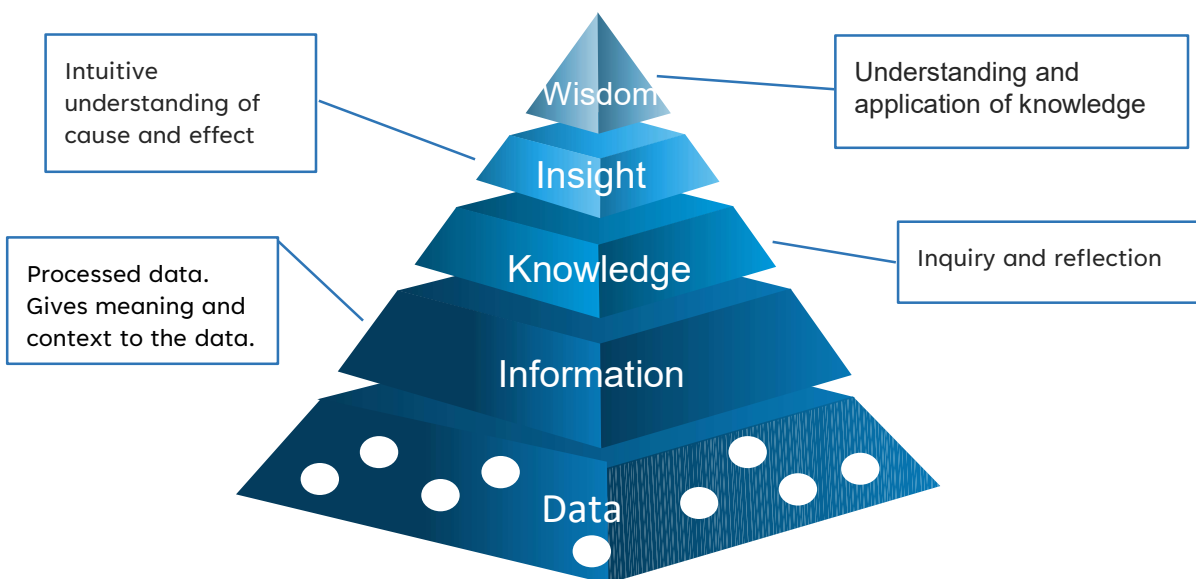


## Engagement in the Program Evaluation Process

- ✓ Who reviews the assessment results?
- ✓ Who makes the recommendations for actions for improvement (both process and learning)?
- ✓ Who implements actions?



## Evaluation



## Examples of Input to the Program Evaluation Process

### Formative

#### Direct assessments:

- ✓ Faculty assessments
- ✓ Peer assessments

#### Indirect data:

- ✓ Student exit questionnaire
- ✓ Self-evaluations (rubric)

### Summative

#### Direct assessments:

- ✓ Faculty assessments
- ✓ Peer assessments

#### Indirect assessments:

- ✓ Student exit questionnaire
- ✓ Self-evaluations (rubric)



Other: Trend data, Curriculum Map, Course materials,  
Samples of tests/exams, Assignments, Student work,  
Faculty observations/wisdom

## Decision-making for quality enhancement

### Consider actions

- ✓ Students – diversity of pedagogy, provide feedback, make outcomes explicit
- ✓ Faculty – professional development in pedagogy, assessment of learning
- ✓ Course – integrate changes in topics/structure
- ✓ Curriculum – modifications to course sequence, add/revise modules
- ✓ Assessment processes – modify assessments process; methods and/or context



Evaluation: Weigh actions,  
consider alternatives.

## Summary – Program Assessment

- ✓ Importance of clarity of purpose – focus on program not individual students/courses/faculty members
- ✓ Program assessment should not isolate faculty but respect the use of their time
- ✓ Collective wisdom of faculty and data-informed decision-making

“You don’t have to be bad to get better!”



## Evaluation Checklist

	Continue what we are doing	Modify what we are doing	Stop what we are doing	Need to begin doing
Faculty who contribute to the learning outcome are involved in the evaluation and action plans related to the outcome				
Data are analyzed at the performance indicator level				
<b>Data available for review are:</b>				
Formative data				
Summative data				
Trend data				
Curriculum map				
Other:				
Other:				
Other:				
Other:				
<b>Actions considered:</b>	<b>Yes</b>	<b>No</b>		
Student learning principles				
Faculty support/development				
Course modification				
Curriculum modifications				
Pedagogy/Andragogy				
Assessment processes				



# TAKING INVENTORY

	Continue what we are doing	Modify what we are doing	Stop doing what we are doing	Need to begin doing
1. Program objectives have been determined				
2. Stakeholders have input to the program objectives				
3. Student outcomes have measurable performance indicators				
4. Performance indicators are mapped to program curriculum				
5. Systematic data collection processes are in place				
6. Evaluation is completed by those who can do something about the results				
7. Action taken is appropriate to the evaluation findings				
8. Reports are clear and reflect the continuous improvement process				
9. Trend data are used to demonstrate results over time.				
10.				

PRIORITIZE	What to accomplish	Tasks	Person Responsible	Due Date