

University Senate Presentation

October 7, 2015

Christa Walck

Associate Provost

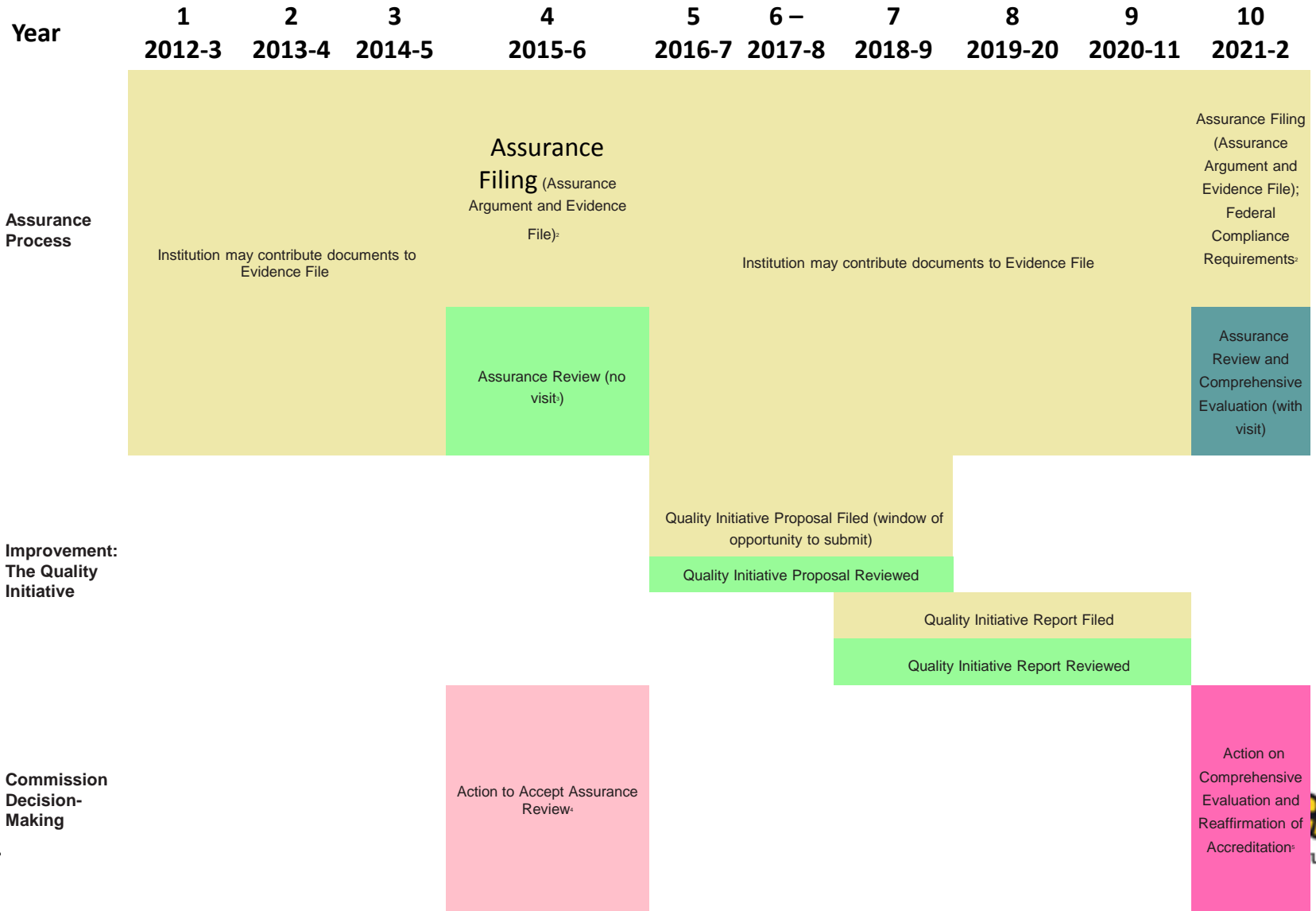
Higher Learning Commission

Accreditation

HLC Open Pathway Assurance Argument due Nov. 9 - no visit!

- “Argument” with “evidence” that we meet HLC’s five criteria:
 1. Mission
 2. Integrity: Ethical and Responsible Conduct
 3. Teaching and Learning: Quality, Resources and Support
 4. Teaching and Learning: Evaluation and Improvement
 5. Resources, Planning, and Institutional Effectiveness
- Draft went to department chairs in May
- Will post final document to [Michigan Tech](#) website in pdf (without references which are only in the closed system)

Open Pathway Accreditation Schedule



Assessment
Student Learning



Three URLs to bookmark

- www.mtu.edu/assessment
- www.mtu.edu/learning-goals
- www.mtu.edu/general-education

Assessment : Degree Programs & Co-Curricular Programs

- Program learning goals/objectives/outcomes
 - 5-7 per degree program (ABET a-k)
 - Assess at least **one** annually → annual report
- 8 University Student Learning Goals that all students should achieve at a proficient level – new *brochure*!
 - Assess **one** annually campus-wide → annual report
 - Schedule:
 - 2013-14 Goal 5 Communication
 - 2014-15 Goal 6 Information Literacy → Due Oct 15
 - 2015-17 Goal 3 Global Literacy → Coffee Chat Oct 22 Library
 - 2017-18 Goal 4 Critical and Creative Thinking
 - 2018-19 Goal 8 Social Responsibility and Ethical Reasoning

Assessment: General Education

- Every Core, HASS, and STEM core course (not STEM Restricted) has selected **one** University Student Learning Goal to help students achieve.
 - Goal 2 STEM
 - Goal 3 Global Literacy
 - Goal 4 Critical Thinking
 - Goal 5 Communication
 - Goal 6 Information Literacy
 - Goal 8 Social Responsibility and Ethical Reasoning
- Student work from *all courses with a learning goal* is assessed annually during the summer

ASSESSMENT OF STUDENT LEARNING

USLG All graduates achieve “level 3” learning outcomes on all goals
www.mtu.edu/learning-goals

1 Disciplinary 

7 Technology 

2 Natural/Phys*

6 Information Lit*

5 Communication*

4 Critical Thinking*

3 Global Literacy*

8 Social Resp/*
Ethical Reason

GENERAL EDUCATION	
15 CR STEM	
CORE 12 CR	HASS 12 CR
6 CR	
3 CR	3 CR
3CR	0-3CR
3CR	0-3CR
3CR	0-3CR

ACADEMIC DEGREE PROGRAMS

Assess Disciplinary Program Goals

and

Reinforce General Education

Use a curriculum map to identify opportunities for students to

PRACTICE

and

APPLY

learning in required courses in the program

Goal Level	2	2 – 3	3	4
Assessment	*Goal Committees and faculty teaching Gen Ed Random sample of student work Use MTU Rubrics Reviewed by GE/A Councils		Departmental Faculty determine methodology Use MTU Rubrics for #2-6, 8 Reviewed by *Goal Committee	
Results to	Goal Committee Reports to GE/A Councils		Annual Assessment Reports to Assessment Council	



Curriculum Map: USLGs and General Education Program

General Education Program	University Student Learning Goals							
	1	2 Physical & Natural World	3 Global Literacy	4 Critical/ Creative Thinking	5 Communication	6 Information Literacy	7	8 Social Responsibility & Ethical Reasoning
UN1015 Composition Required					I	I		
UN1025 Global Issues Required			I			I		
GOAL 4 Courses One course required				I				
GOAL 8 Courses One course Required								I
Communication/ Composition (2nd course) One course required					R			
HASS Courses 3 courses required – one or more goals not covered			(R)	(R)	(R)			(R)
Mathematics List One course required		I						
Science List Two courses required		I						

Annual Assessment Report 2014-5

DEGREE PROGRAM LEARNING GOALS	ASSESSMENT ACTIVITY	WHEN?	RESULTS 1	ACTION PLANNED WHEN?	RESULTS 2 CLOSE THE LOOP
1 YOUR PROGRAM GOAL HERE	Type: ___ Course Direct ___ Other Direct ___ Indirect Brief description: Target: University Goal:		Date:		Date:
2 6 INFORMATION LITERACY	Type:		Date:		Date:
3 COMMUNICATION	Type:		Date:		Date: RESULTS of ACTION taken in 2013-4

Assessment Options

- Course *direct* assessment – use student work from existing courses
- Other *direct* assessment – external exams, ETS, licensures, etc.
- Indirect assessment – surveys, exit interviews, e.g. National Survey of Student Engagement (NSSE)

Assessment : Degree Programs

- Who prepares your report? Curriculum/Assessment Committee, associate chair/dean
- For **course direct assessment**:
 - Where/what do you assess? [Curriculum Map](#) of *required courses* locates opportunities
 - USLGs - [Michigan Tech rubrics](#) guide assessors
 - Who assesses? Assessors should be faculty in your program
 - Preferably not – or not only - the instructor of record
 - **Faculty involvement in assessment is important**
- How is it evaluated? Assessment Council evaluates it using a [rubric](#).

Program Level
Student Learning
Outcomes



1xx 1xx 2xx 2xx 2xx 3xx 3xx 3xx 4xx Capstone

1	K		A		A			S	A	S
2		K	A	A			A			S
3	K					K		A	S	
4		K			A			S		
5	K					K	A	S		S
6		K			K	A		A	S	
7		S			A	A		S	S	

K= Knowledge/Comprehension; A= Application / Analysis; S= Synthesis /Evaluation

First, identify where you address the learning goal already.
Include a short description of the **existing assignment**.



Required Courses	Goal 3	Goal 4	Goal 5	Goal 6	Goal 8	Relevant Assignments
Gen Ed 1000	x		x	x		essays
Gen Ed 2000	x	x	x		x	research projects
PT 2001						
PT 2501		x		x		lab report
PT 3001		x	x	x	x	group project
PT 3501		x				essay
PT 4001						
PT 4900	x		x			group project

A globally literate student will demonstrate the ability to understand and analyze issues on multiple scales and from diverse perspectives, acknowledging interconnectivity and complexity. As globally literate, students should 1) become informed and open-minded people who are attentive to diversity across the spectrum of differences, 2) seek to understand how human actions impact the human and natural world on multiple scales, and 3) address the most pressing and enduring global challenges while considering context, complexity, and interconnectivity.

Global Literacy	What is being assessed	Beginning 1	Developing 2 - CORE 2000	Proficient 3	Exemplary 4
3.1 Global Awareness	Awareness of the scales of human impact on the natural/human world	Recognizes that human action impacts the natural and human world on a single scale	Recognizes that human action impacts the natural and human world on multiple scales	Analyzes some relationships between multiple scales to understand how human actions impact the natural and human world	Analyzes the complexity of relationships between multiple scales to understand how human actions influence the natural and human world
3.2 Perspective Taking	Awareness of diverse perspectives and open-mindedness	Little/no recognition of multiple perspectives	Recognizes the existence of multiple perspectives while maintaining a value preference for one perspective	Analyzes topics from multiple perspectives while valuing contributions from these perspectives	Synthesizes multiple perspectives to analyze complex topics
3.3 Cultural Diversity	Knowledge of cultural diversity across a spectrum of difference.	Little/no knowledge of cultural diversity	Demonstrates some knowledge of different cultures while maintaining a value preference for one culture	Recognizes commonalities between cultures while respecting cultural differences	Analyzes in depth patterns of commonalities and differences in cultures using a culturally relativistic lens
3.4 Understanding Global Systems	Ability to examine global systems	Little/no knowledge of global institutions, processes, or trends	Demonstrates some knowledge of global institutions, processes, or trends	Recognizes interactions between multiple global institutions, processes, or trends	Analyzes the complexity of interactions between multiple global institutions, processes, or trends
3.5 Applying Knowledge to Contemporary Global Contexts	Ability to apply knowledge to address global challenges from diverse perspectives	Little/no knowledge of global challenges	Demonstrates basic knowledge of global challenges and/or awareness of simplistic solutions	Analyzes global challenges while demonstrating awareness of more complex solutions	Develops or evaluates more complex solutions to global challenges that are appropriate to the context

09-29-2015

Assessment
Student Learning



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- www.mtu.edu/learning-goals
- www.mtu.edu/general-education

Feedback on Assessment Reports

- All programs receive feedback from Assessment Council using a simple [rubric](#).

Criteria	Score	Explicit	Measurable/Observable
Learning Goal A learning goal specifies what students will know or be able to do when they graduate from the academic degree program.	4	Explicitly defines what student will know or do	Describes an observable and measurable behavior or product
	3	Does not explicitly define what students will know or do; states a broad outcome that needs to be further specified	Describes a potentially observable and measurable behavior or product
	2	Unclear or incorporates multiple outcomes	Describes something for which it is difficult to collect evidence
	1	No learning goals, or focusses on program mission or processes	Does not identify something observable or measurable

Assessment
Student Learning



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www.livetext.com

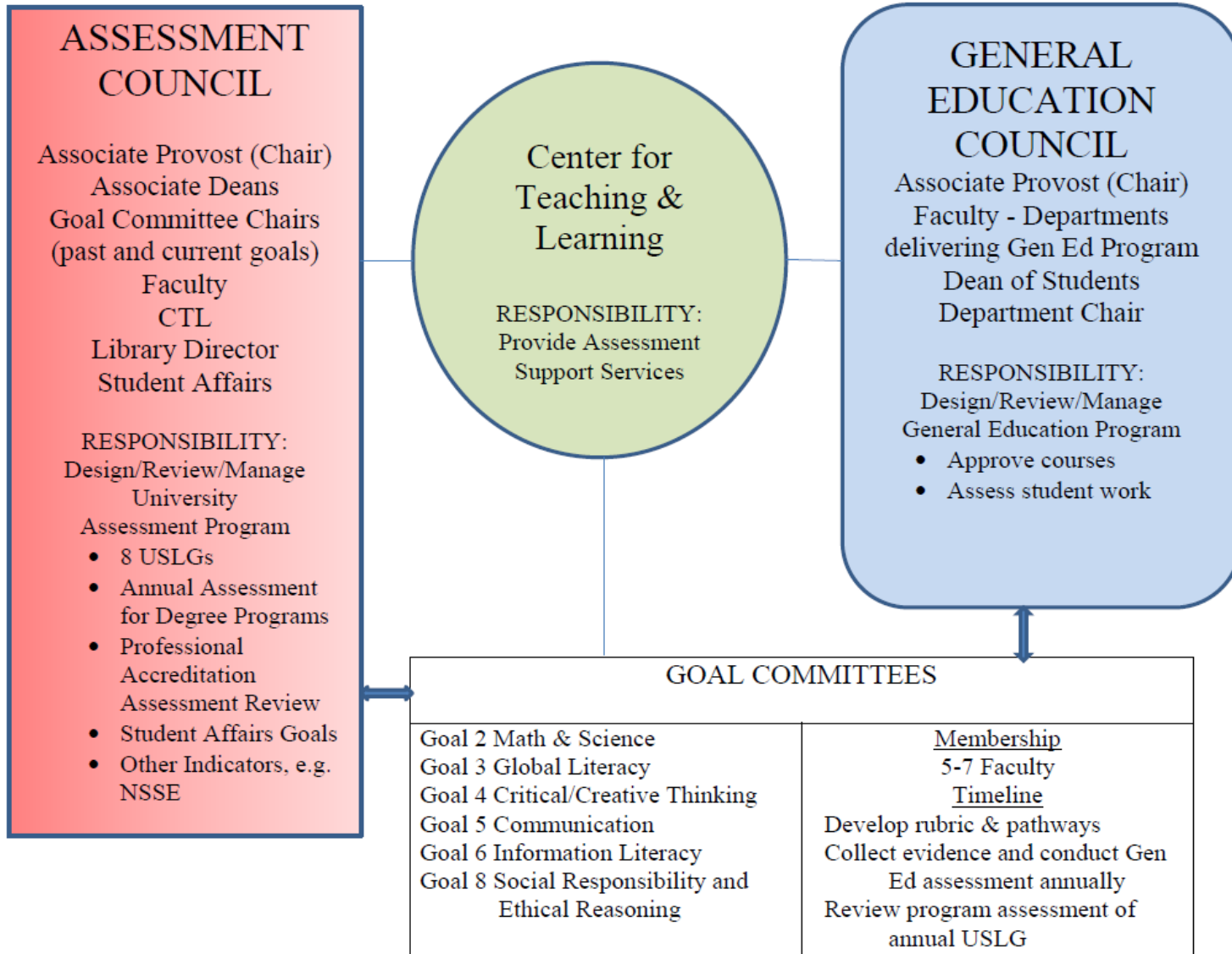
LiveText is an assessment technology software that will be used for

- assessment findings and action plans for all learning goals/outcomes
- program curriculum maps

LiveText will also be used in a few other pilot projects this year at Michigan Tech

- General Education assessment - UN1015 and UN1025
- School of Technology (MET, EET) degree program assessment and ABET reporting
- Student eportfolios for four Mechanical Engineering Practice courses

Next year Live Text will be available for all assessment reporting and student eportfolios for any program.



ASSESSMENT COUNCIL

Associate Provost (Chair)
 Associate Deans
 Goal Committee Chairs
 (past and current goals)
 Faculty
 CTL
 Library Director
 Student Affairs

- RESPONSIBILITY:
 Design/Review/Manage
 University
 Assessment Program
- 8 USLGs
 - Annual Assessment for Degree Programs
 - Professional Accreditation Assessment Review
 - Student Affairs Goals
 - Other Indicators, e.g. NSSE

Center for Teaching & Learning

RESPONSIBILITY:
 Provide Assessment
 Support Services

GENERAL EDUCATION COUNCIL

Associate Provost (Chair)
 Faculty - Departments
 delivering Gen Ed Program
 Dean of Students
 Department Chair

- RESPONSIBILITY:
 Design/Review/Manage
 General Education Program
- Approve courses
 - Assess student work

GOAL COMMITTEES

Goal 2 Math & Science
 Goal 3 Global Literacy
 Goal 4 Critical/Creative Thinking
 Goal 5 Communication
 Goal 6 Information Literacy
 Goal 8 Social Responsibility and
 Ethical Reasoning

Membership
 5-7 Faculty
Timeline
 Develop rubric & pathways
 Collect evidence and conduct Gen
 Ed assessment annually
 Review program assessment of
 annual USLG

Assessment Council 2015-16

- Chair Christa Walck, Associate Provost
- COE Leonard Bohmann, Associate Dean
Jean Kampe (Materials Science & Goal 6)
Aurenice Oliveira (ECE & Goal 3)
- CSA John Jaszczak, Associate Dean & Goal 2
- SBE Junhong Min
- SOT John Irwin
- SFRES Andrew Storer, Associate Dean
- St Aff Susan Liebau, Director
- Library Ellen Marks, Director
Sarah Lucchesi (Goal 6)
- CTL Jean DeClerck

General Education Council 2015-16

Chair Christa Walck, Associate Provost

COE Jon Sticklen, Engineering Fundamentals

CSA Mark Gockenbach, Math, Dept. Chair & Goal 2

Patricia Helsel, VPA

John Jaszczak, Associate Dean & Goal 2

Karla Kitalong, HU & Goal 5

Barry Solomon, Social Sciences

Registrar - Theresa Jacques

Dean of Students - Bonnie Gorman

Library - Jennifer Sams

Goal Committees

Goal 2 Knowledge of the Physical and Natural World

John Jaszczak CSA - Chair
Yu Cai SOT
David Flaspoler SFRES
Mark Gockenbach Math
Sarah Green Chemistry
Jeremy Shannon GMES

Goal 5 Communication

Karla Kitalong HU – Chair
Paul Charlesworth Chemistry
Jim DeClerck ME-EM
Kris Mattila Civil Eng
Chelsea Schelly SocSci

Goal 3 Global Literacy

Aurenice Oliveira ECE – Chair
Ramon Fonkue HU
Oliver Gailing SFRES
Kari Henquinet SS
Alex Mayer CEE
Mark Rouleau SS
Stefaan DeWinter, Math

Goal 6 Information Literacy

Jean Kampe MatSci – co-chair
Sarah Lucchesi Library – co-chair
Melissa Baird SocSci
Andrew Galerneau Chemistry
Caryn Heldt CE
Jonathon Reihl Eng Fund
Paulus Van Susante ME-EM
Linda Wanless SOT

Goal 4 Critical & Creative Thinking

Robert Johnson HU - Chair
William Endres ME-EM
Megan Frost Biomed
Jonathon Robins SS
John Vucetich SFRES

Goal 8 Social Responsibility and Ethical Reasoning

Dieter Adolphs HU – chair
Adam Feltz CLS
Susan Liebau Student Affairs
Scott Marratto HU
Paul Nelson SBE
David Watkins CEE
Richelle Winkler SS

Results?

Degree Program Assessment

- Two cycles completed
- Some excellent work being done - ME-EM, Chemical Engineering and Social Sciences
- <http://www.mtu.edu/assessment/program/reports/>
 - Assessment of disciplinary goals (Goal #1) was often exemplary.
 - Many reports clearly set targets for achievement.
 - Many reports indicated sample size and provenance.
 - Many reports clearly identified areas for improvement and actions to take next year.
 - Almost all reports assessed Goal 5 Communication (required) as well as a goal of choice.

Results?

Degree Program Assessment

- Areas for improvement
 - Set appropriate targets for achievement
 - Be specific about faculty involvement in assessment
 - Don't oversummarize results
- Council's improvements:
 - Assessment activity now on F-10 under teaching
 - Curriculum Mapping added to identify opportunities for assessment
 - LiveText implementation to create a database of results
 - Task force on assessing work from team projects
 - Program learning goals on degree websites

Results?

General Education

New General Education Program fully implemented Fall 2015 for new students

Core Courses (12 credits):

- UN1015/UN1025 registrar enrolled all students
- HUFA → Goal 4 List, SBS → Goal 8 List
- Assessed since 2013-14

HASS (12 credits)

- 95% of courses approved in 2014-15
- Assessed beginning 2014-15

STEM (15 credits) – Working toward assessment

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09-29-2015

Results?

General Education

Target: 1000-2000 level 2

UN 1015 Composition

- Communication - met level 2 on 4 of 5 criteria
- Information Literacy - met level 2 on 4 of 5 criteria

UN 1025 Global Issues

- Global Literacy – met level 2 on 5 of 5 criteria
- Information Literacy – met level 2 on 5 of 5 criteria

Improvement from 2013-4 to 2014-5



Model assignments across sections

Faculty working together

2014-2015 University Student Learning Goal Assessment

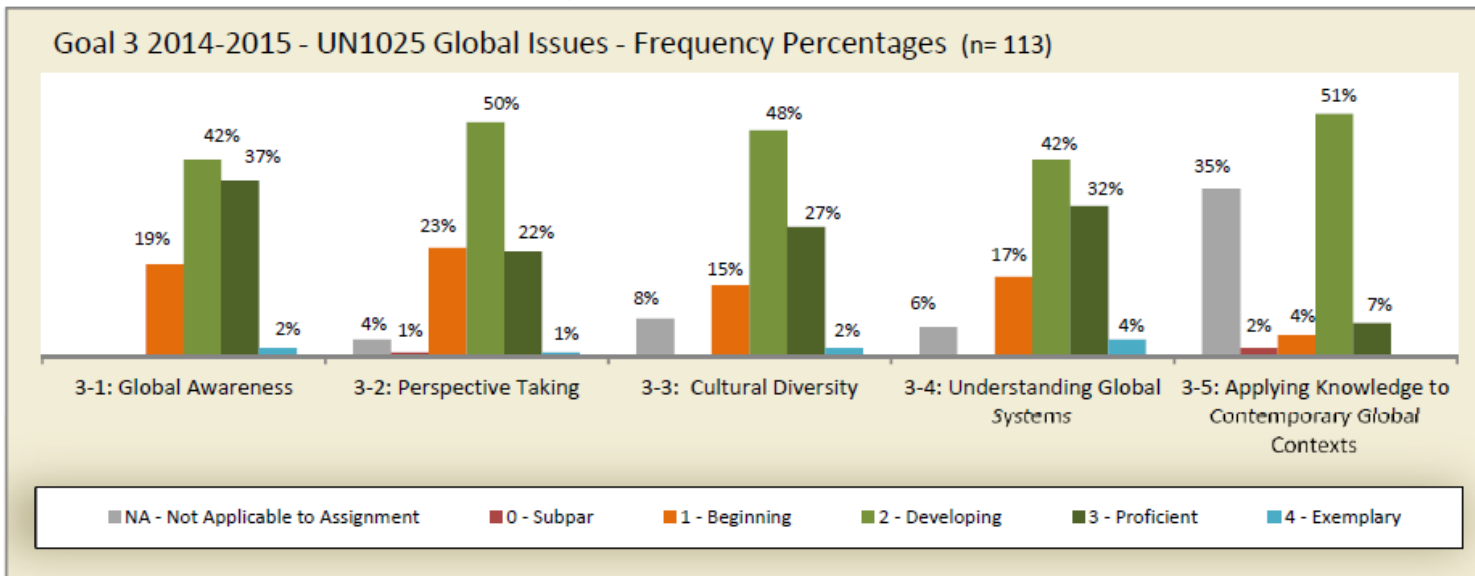
Goal 3: Global Literacy

UN1025: Global Issues

Goal 3 UN1025: Global Literacy		Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5
		<i>Global Awareness</i>	<i>Perspective Taking</i>	<i>Cultural Diversity</i>	<i>Understanding Global Systems</i>	<i>Applying Knowledge to Contemporary Global Contexts</i>
2014-15 UN1025	Criteria Averages	2.21	1.99	2.17	2.24	1.99
	% Met Target *	81%	75%	84%	82%	90%
	n ** =	113	109	104	106	73
2013-14 UN1025	Criteria Averages	1.71	1.44	N/A	1.39	1.06
	% Met Target *	59%	49%	N/A	39%	20%

*Target performance for UN1025 Global Issues courses is rating of 2 (Developing) or greater.

** N/A scores are not included in calculations.



Results?

General Education

Targets: 1000-2000 level 2, 3000-4000 level 3

Goal 4 Critical and Creative Thinking

- Core 2000 – almost met level 2 on 1 of 5 criteria
(but better than 2013-14)
- HASS 3000-4000 – met level 3 on no criteria
(but somewhat better than Core 2000)

Goal 8 Social Responsibility and Ethical Reasoning

- Core 2000 – met level 2 on no criteria
(but better than 2013-14)
- HASS 3000-4000 –met level 3 on no criteria
(but marginally better than Core 2000)



Great variety of courses, no coordination
Rubrics combine two elements

Next Step for Gen Ed

Goal Committees:

- Report results and recommendations to Assessment and General Education Councils
→ discussed in Councils' Annual Reports
- Provide feedback to all faculty teaching a course tagged with its goal
- Workshops spring 2016 for faculty to work on model assignments → Learning Communities

Need Help?

- Assessment Help for Faculty:

Jean DeClerck, Instructional Design & Assessment Specialist, jsdecler@mtu.edu

- writing learning goals
- developing curriculum maps
- implementing LiveText
- designing assignments for assessment
- interpreting feedback

- [Coffee Chat](#) on **Goal 3 Global Literacy**
Oct 22, 3:30pm, East Reading Room, Library

For More Information

Assessment Council Annual Reports

<http://www.mtu.edu/assessment/program/reports/>

General Education Council Annual Reports

<http://www.mtu.edu/provost/academic-policies/general-education/administration/>