Senate Forum
General Education Proposal

November 14, 2013

General Education Council

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GENERAL EDUCATION COUNCIL 2013-4

Christa Walck, Associate Provost, Chair
Patricia Helsel (Visual and Performing Arts)
Tom Merz (Economics)
Patricia Sotirin (Humanities), Communication Committee Chair
Steve Walton (Social Sciences)
Mark Gockenbach (Mathematics)
Jean Kampe (Engineering Fundamentals)
John Jaszczak (Physics)
Margaret Phillips (Library), Information Literacy Committee Chair
Theresa Jacques, Registrar (ex-officio)
Bonnie Gorman, Dean of Students (ex-officio)

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Four Questions

- Why are these Gen Ed changes necessary?
- Do we really need these changes for accreditation?
- Why is this change urgent?
- What were the ways in the past that SS, HUM and STEM were invited to give feedback up to this point? Did they have reps on the Gen Ed Council for example?

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Accountability

External accountability – outcomes oriented

- Threats
  - We do not want U.S. Department of Education to expand NCLB to higher ed.
  - We do not want state legislatures to tie funding to test scores.
- Response of accreditors = emphasize assessment of student learning

Internal accountability – improve student learning

We are operating under two constraints that have some urgency:

1. HLC accreditation, which requires assessment of learning outcomes for Gen Ed.
2. Michigan Transfer agreement, which is linked to Gen Ed credits.

HLC Accreditation

- Required for federal student aid
- Necessary for ABET/AACSB/SAF professional accreditation
- Unlikely we would get federal research funding without it

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Next Step in HLC Accreditation

- Assurance Argument due August 2015
  - Requires an argument for each criterion and component
  - Requires evidence to support each argument

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Michigan Transfer Agreement

Committee on the Transferability of Core College Courses Final Recommendations (June 2013)

- 30 credit bloc of distribution credits
  - Humanities
  - Fine Arts
  - Social Sciences
  - Natural/Physical Sciences
- Implementation expected 2016

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Timeline to Implement Gen Ed Changes

2013-4	2014-5	2015-6	2016-7
Implementing new Core	HLC Assurance Argument due		Michigan Transfer Agreement
If Senate approves Gen Ed HASS & STEM changes this year, then…	Changes need to go through binder process in October so catalog can be distributed …	and HASS & STEM changes can be implemented	
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HLC's New Criteria

More emphasis on teaching, learning, and assessment of student learning.

New 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

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HLC Criteria 3 & 4

Student achievement of institutional learning goals is central to awarding of a degree.

- Learning goals for all degree programs.
- Learning goals for undergraduate general education.
- Effective processes for assessment of student learning and achievement of learning goals.
- Methodologies that reflect good practice, including substantial participation of faculty.

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University Student Learning Goals

- Established in 2011 in response to AQIP concerns
- Based on strategic goals, ABET, AACSB, SAF, LEAP
- Require assessment to assure achievement

1. Disciplinary Knowledge (aka Degree Program Goals)
2. Knowledge of Physical and Natural World
3. Global Literacy and Knowledge of Human Culture
4. Critical and Creative Thinking
5. Communication
6. Information Literacy
7. Technology
8. Values and Civic Engagement

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The Gen Ed Council selected 6 of these goals for the Gen Ed program to achieve:

2. Knowledge of Physical and Natural World
3. Global Literacy and Knowledge of Human Culture
4. Critical and Creative Thinking
5. Communication
6. Information Literacy
8. Values and Civic Engagement

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Gen Ed Core now achieves 5 learning goals at level 2 “developing”

Gen Ed Core Course	Learning Goal
UN1015 Composition	Goal 5 Communication Goal 6 Information Literacy
UN1025 Global Issues	Goal 3 Global Literacy & Human Culture Goal 6 Information Literacy
HUFA-2000 Course List	Goal 4 Critical & Creative Thinking Goal 8 Values & Civic Engagement
SBS-2000 Course List	Goal 3 Global Literacy & Human Culture Goal 8 Values & Civic Engagement

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Proposal = Gen Ed HASS & STEM achieve 5 goals at level 3 “Proficiency”

- Goal 2 Knowledge of Physical and Natural World
- Goal 3 Global Literacy & Human Culture
- Goal 4 Critical & Creative Thinking
- Goal 5 Communication
- Goal 8 Values & Civic Engagement

* Goal 6 Information Literacy achieved at level 3 in the major

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University Student Learning Goals	*Level 2 Developing*	*Level 3 Proficient*	*Level 4 Exemplary*
1 Disciplinary			**Achieved in all majors**
2 Knowledge of Physical & Natural World	**GEN ED LG-STEM** 15 credits		Achieved in designated majors
3 Global Literacy & Human Culture	**GEN ED Core** UN1025 SBS 2000	**GEN ED LG-HASS** 3 credits	
4 Critical & Creative Thinking	**GEN ED Core** HUFA 2000 STEM	**GEN ED LG- HASS** 3 credits	
5 Communication	**GEN ED Core** UN1015	**GEN ED LG-HASS** 3 credits	
6 Information Literacy	**GEN ED Core** UN1015 UN1025	**Achieved in all majors**	
7 Technology		**Achieved in all majors**	
8 Values & Civic Engagement	**GEN ED Core** SBS 2000 HUFA 2000	**GEN ED LG-HASS** 3 credits	

Learning Goals

GOALS	1 Discip-linary	2 Natural /Phys. World	3 Global/ Human Culture	4 Crit/ Creative Thinking	5 Comm	6 Info Lit	7 Tech	8 Values & Civic Engage
Gen Ed Core			2 courses	1 course	1 course	2 courses		2 courses
Gen Ed HASS/ STEM		STEM	HASS	HASS	HASS			HASS
Degree Program	X	Apply/practice				X	X	Apply/ practice

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Gen Ed HASS Proposal

- 12 credits (no change)
- Each HASS course must meet Goal 3, 4, 5 *or* 8 at level 3 proficiency. A course can meet two goals.
- Only Gen Ed Core courses can be prerequisites.
- Students must complete all 4 goals.
- Students can substitute one 2000 level core course for HASS credit.
- Students can only take 3 credits of HASS with non-HASS prefix.

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Gen Ed STEM Proposal

- 15 credits.
- Meet USLG 2 Knowledge of the Physical and Natural World
- 4 credits of Mathematics
- 2 science courses, at least one lab
- Students can only take 4 credits of STEM Supplemental.

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THANK YOU!

- General Education Webpage http://www.mtu.edu/provost/academic-policies/general-education/
- General Education & Assessment Canvas course (all instructors of record are enrolled) https://mtu.instructure.com/ - go to Course list
- Assessment webpage: http://www.mtu.edu/assessment/
- HLC Criteria
  - HLC direct link http://www.hlcommission.org/Information-for-Institutions/criteria-and-core-components.html
  - Highlighted copy http://www.mtu.edu/provost/accreditation/accreditation-criteria/criteria.pdf

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For more information,
read on.

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A little history…

Year	Action
2010-11	Assessment Council reconvened and reconstituted to address AQIP/accreditation assessment deficiencies.
	Assessment and Gen Ed Councils jointly developed USLGs – approved by President June 2011.
2012-12	Gen Ed task force chaired by Dean Seely proposed changes to Gen Ed Core, Council approved – final university approval May 2012.
	AQIP Quality Checkup March 2012 – reaffirmation August 2012.
2012-13	Communication & Global Learning Committees created at Senate request.
	AAC&U LEAP rubrics adapted for Michigan Tech assessment.
	Gen Ed Council reviewed Michigan Transfer Agreement (MTA).
	Gen Ed Council HASS & STEM subgroups proposed changes to HASS & STEM to align with USLGs and MTA: 4 courses, 4 USLGs
	Gen Ed Council met with HASS chairs to discuss proposed HASS changes.

A little history…

Year	Action
2013-4	Gen Ed Council met with HASS chairs again; amended proposal to meet HASS chairs' concerns: 3rd 2000 level core course counts for HASS, max. 3 cr. HASS with non-HASS prefix.
	Gen Ed Council previewed proposal with Advising Council, which had concerns with DARS' ability to manage proposed HASS requirements. Registrar agreed to work with advisers on DAR.
	Gen Ed Council submitted proposal for changes to HASS & STEM to Deans Council and Senate Curricular Policy Committee for review and feedback
	Senate proposed Forum on Changes to General Education
	NEXT STEPS: Gen Ed Council will consider feedback, send proposal to Deans' Council for approval; if approved, provost sends proposal to Senate for discussion and vote

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HLC Guiding Values

1. Focus on student learning.

3. Education for a diverse, technological, globally connected world. …Students need the civic learning and broader intellectual capabilities that underlie success in the workforce.

4. A culture of continuous improvement

5. Evidence-based institutional learning

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HLC Criterion 3B2

The institution articulates the purposes, content, and intended learning outcomes of its undergraduate general education requirements. The program of general education is grounded in a philosophy or framework developed by the institution or adopted from an established framework. It imparts broad knowledge and intellectual concepts to students and develops skills and attitudes that the institution believes every college-educated person should possess.

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Michigan Transfer Agreement

Committee on the Transferability of Core College Courses Final Recommendations - June 2013

- Guiding principles
  - Treat transfer students the same as native students at the receiving institution
  - Promote transparency among institutions to ensure accurate transfer information for students
- Recommendations: students will successfully complete at least 30 credits, according to the following distribution
  - 1 course in English Composition
  - 2nd course in English Composition or 1 course in Communications
  - 1 course in Mathematics (see "Next Steps" section for more information)
  - 2 courses in Social Sciences (from two disciplines)
  - 2 courses in Humanities and Fine Arts (from two disciplines excluding studio and performance classes)
  - 2 courses in Natural Sciences including one with laboratory experience (from two disciplines)

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General Education & Michigan Transfer

Group	Course	Cr.	USLG	Michigan Common Core
CORE USLG # 3 4 5 6 8 Level 2	UN1015 Composition	3	5 Communication 6 Information Literacy	1 course in English Composition
	UN1025 Global Issues or Modern Language Option	3	3 Global Literacy & Human Culture 6 Information Literacy	1 course in Social Sciences
	HU/FA 2000	3	4 Critical/Creative Thinking 8 Values & Civic Engagement	1 course in Humanities/Fine Arts
	SBS 2000	3	3 Global Literacy & Human Culture 8 Values & Civic Engagement	2nd course in Social Sciences – 2nd discipline
HASS USLG # 3 4 5 8 Level 3	Courses that help students achieve level 3 for Learning Goals 3, 4, 5, 8	12	3 Global Literacy & Human Culture 4 Critical/Creative Thinking 5 Communication 8 Values & Civic Engagement	2nd course in Humanities/Fine Arts – 2nd discipline 2nd course in Communications/Composition
STEM USLG #2 4	Math 4 cr Science 7-8 cr, 2 courses (1 lab science) STEM 3-4 cr	15	2 Knowledge of Physical/Natural World	1 course in Quantitative Reasoning 2 courses in Natural Sciences including one with laboratory experience
CoCurricular	FA, AF/AR, PE	(3)		
		39		30 credits

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HLC – 2009 AQIP Evaluation of our Systems Portfolio for Cat. 1 "Helping Students Learn"

O = Opportunity (aka weakness)

- 1P1b O The General Education program underwent significant revision about ten years ago and was to be reviewed periodically. However, there is no indication of a systematic review process being established. There is an opportunity here to put into place a formal review process for the General Education program. Regularly scheduled reviews may offer an opportunity to address relevant matters in a more timely manner.
- 1P2c O While it is positive that MTU recognizes the independence of its programs to determine learning outcomes, academic assessment at Michigan Technological University may be strengthened by sharing best practices in assessment between units and developing a common framework and protocol that may enable regular, system-wide assessment to occur and ensure that institutional objectives are reached.

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HLC – 2009 AQIP Evaluation of Cat. 1 "Helping Students Learn"

O = Opportunity (aka weakness)

- 1P17 O Currently, assessment of student learning at Michigan Technological University has focused on program review and has been unit driven. Though program assessment of culminating work, where used, is an important aspect of ensuring student learning, Michigan Technological University has an opportunity to correlate student achievement of learning and development objectives across all units, thus ensuring that student achievement of expected (institutional) learning outcomes is central to awarding of a degree.
- 1I2b O While the institution declares its commitment to creating a culture in which students learn, it has an opportunity to clearly identify improvements in culture and infrastructure based on appropriate data for improved performance results for helping students learn.

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HLC – 2009 AQIP Evaluation of Cat. 1 "Helping Students Learn"

O = Opportunity (aka weakness)

- 1P18b O Michigan Technological University indicates that they have a faculty driven process for assessing student learning at the course, program and General Education level, however, no examples or specific information is provided to fully explain these processes.

- 1R3b OO While there are noteworthy efforts being made to assess student learning in the colleges of engineering and technology, there is no evidence to indicate that the other three colleges have similar or comparable initiatives in place at this time. The institution should look at how to develop similar tools for the non-nationally assessed disciplines.

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How we developed USLGs

Michigan Tech Goals and Strategic Plan	LEAP Categories & Essential Learning Outcomes	Michigan Tech General Education Goals 1998	ABET Eng	ABET Eng Tech	SAF	AACSB	Michigan Tech Learning Goals
Grounded in science, engineering, technology, sustainability, the business of innovation, and an understanding of the social and cultural contexts of our contemporary world	**Knowledge**	Knowledge of broad range of topics and disciplines complementary to their major	apply knowledge of mathematics, science, and engineering	Appropriate mastery of the knowledge, techniques, skills, and modern tools of their Disciplines	technical skills and subject areas	Use of information technology	Disciplinary Knowledge
Cultivate intellectual diversity and a worldview adapted to the needs and challenges of the 21st century	Human Cultures	Knowledge of human cultures Modes of inquiry – assumptions, methods, values and goals of… Knowledge area goals Literature and language Visual arts… Social and behavioral analysis Economic institutions	Knowledge of contemporary issues Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	apply current knowledge and adapt to emerging applications of mathematics, science, engineering, and technology conduct, analyze and interpret experiments	cultural awareness mathematics, natural and physical sciences social sciences business & computer skills	Competent in uses of technology and information systems Dynamics of the global economy Multicultural and diversity understanding	Knowledge of human cultures and the physical and natural world
Develop students' global skills through study of other languages and cultures	Physical & Natural World	Epistemology and cognition Ethics and moral philosophy Historical studies Natural and physical science	use the techniques, skills, and modern engineering tools necessary for engineering practice.	apply creativity in the design of systems, components, or processes		Prepare for a business environment that is global in scope	Global Literacy
Encourage participation in international experiences		Mathematical modeling and problem solving in sciences, math, engineering, economics, computer science		Mathematics content must provide students with the skills to solve technical problems		Global, environmental, political, economic, legal and regulatory context for business	Critical & Creative Thinking
Understand, develop, apply, manage and communicate science and technology	Sciences Mathematics			Physical/natural sciences: develop expertise in experimentation, observation, measurement, and documentation			Communication
Prepare students to create the future							Information Literacy
Distinctive and rigorous discovery-based learning experience							Technology
New and emerging interdisciplinary areas Entrepreneurship	Engagement with big questions, both contemporary and enduring	Quantitative skills Statistical techniques		Social Sciences/Humanities: understanding of diversity and the global and societal impacts of technology.			Values and Civic Engagement

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Assessment of USLGs

Assessment and Gen Ed Councils agreed to use AAC&U LEAP VALUE rubrics as framework for assessment.

- Rubrics are validated by AAC&U.
- Used nationwide at many institutions.
- Can adapt rubrics to some extent.
- Can map existing rubrics onto these generic rubrics.
- Provides common framework for assessment of USLGs across disciplines.
- Michigan may become a LEAP state.

Michigan Tech Rubrics

- Faculty & Staff committees have been working to adapt LEAP rubrics to Michigan Tech.
  - Communication Committee
  - Information Literacy Committee
  - Global Literacy Committee
- Current rubrics are available to download.
- Workshops help faculty understand how to use rubrics.

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What is a rubric? Sample Communication Rubric

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

GEN ED CORE GEN ED HASS & STEM

Levels are cumulative so that the Capstone level incorporates achievements at levels 1-3	Beginning Level 1	Developing Level 2	Proficient Level 3	Exemplary Level 4
Context of and Purpose for Writing	Demonstrates minimal attention to context, audience, purpose, or task	Demonstrates awareness of context, audience, purpose and task	Demonstrates adequate consideration that aligns work to considerations of audience, context, purpose, and task	Demonstrates a thorough understanding that focuses all elements of the work.
Organization and Conventions	Develop unclear or inconsistent organizational pattern; shows little awareness of genre and disciplinary conventions	Develop organizational pattern unevenly; follows disciplinary or task expectations at a basic level of understanding	Develop recognizable organizational pattern that structures the whole work; uses disciplinary or task conventions consistently	Develop organizational pattern that enhances flow and cohesiveness through the whole work; demonstrates detailed attention to and successful execution of disciplinary or task conventions
Content Development	Is simplistic in some parts of the work	Is appropriate through most of the work	Is compelling through the whole work	Demonstrates subject mastery
Sources and Evidence	Minimally supports ideas in the writing.	Demonstrates an attempt to use credible and/or relevant sources	Demonstrates consistent use of credible, relevant sources	Demonstrates skillful use of high-quality, credible, diverse, and relevant sources
Control of Syntax and Mechanics	Language use impedes meaning because of errors.	Appropriate language use that conveys meaning although may have noticeable errors.	Straightforward language use that clearly conveys meaning with few errors.	Skillful language use to communicate meaning with clarity and fluency and virtually error-free.

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Gen Ed HASS Proposal

- 12 credits (this reflects no change in credits)
- Degree programs cannot designate specific LG-HASS courses.

For Courses:

- Each course on an LG-HASS list must demonstrate learning for at least one Goal (3, 4, 5 or 8) at Level 3-Proficient. Courses will be approved by the appropriate Goal Committees and then by the General Education Council.
- Each course on an LG-HASS list may include one or two Goals; a course can therefore be on one or two lists.
- Prerequisites for LG-HASS courses are limited to General Education core courses (UN1015, UN1025, HUFA-2000, SBS-2000)
- All LG-HASS courses are open to all students.
- All LG-HASS courses are subject to assessment by the appropriate Goal Committees.

For Students:

- Students must cover all Goals (3, 4, 5 and 8) in 12 credits by selecting courses from the four LG-HASS lists. A student could meet at most two goals in one course.
- At most one 3-credit LG-HASS course *with a non-HASS prefix* can be used to satisfy LG-HASS requirements.
- Courses can count toward either LG-HASS or LG-STEM requirements on a student degree audit, but not both.
- Students may substitute one *additional* 3-credit HUFA-2000 or SBS-2000 level General Education core course for 3 credits of LG-HASS (i.e., they cannot use the 2000 level core courses which count toward their core requirement). This will enable students interested in an LG-HASS course for which they do not have the prerequisite to complete the prerequisite and take the LG-HASS course. However, to meet all four Goals, one course will need to meet two goals in order to complete the LG-HASS requirement in 12 credits.

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Gen Ed STEM Proposal

- 15 credits (a reduction of 1 credit).
- Degree programs can designate specific LG-STEM courses

For Courses:

- All courses on the Mathematics or Science Lists must meet Goal 2 *Knowledge of the Physical and Natural World.*
- Courses on the Supplemental LG-STEM Course list
  - must be engaged in the study of STEM topics and approved by the Goal 2 STEM Committee and General Education Council, and
  - must be graded (A-F) - students enrolled in the course must be engaged in the study of STEM topics as demonstrated or documented with graded student work (i.e., any combination of homework problems, exams, papers, reports, presentations) that composes a minimum of 70% of the student's grade in the course. This criterion precludes courses that use student attendance as the only, or a major (greater than 30%), component of course grade.
- All LG-STEM courses are open to all students.
- All LG-STEM courses on the Mathematics and Science lists are subject to assessment by the Goal 2 STEM Committee. Courses on the Supplemental STEM list are not assessed for Goal 2.

For Students:

- Students must complete a minimum of 4 credits of Mathematics from the Mathematics List.
- Students must complete two science courses on the Science Course List; at least one of these must include or be taken with the accompanying laboratory.
- No more than 4 credits can be taken from the Supplemental LG-STEM Course List. Courses can count toward either LG-HASS or LG-STEM requirements on a student degree audit, but not both.

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