NMHU General Education
Assessment Guidelines

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Table of Contents

Introduction: Outcomes Assessment at NMHU 3

Overview of Outcomes Assessment Process 3

The Four University-Wide Traits 4

General Education Assessment at NMHU 5

Levels of General Education Oversight 5

Summary of Overall Process for General Education Assessment 6

The General Education Assessment Plan 7

Use of specific assignments and student grades 8

Use of scoring rubrics 8

Additional material for the Outcomes Assessment Report 8

Appendix A: General Education Assessment Plan and Report Template 9

Appendix B: General Education Assessment Template and Instructions 11

Appendix C: Peer Review Feedback Form for General Education Assessment Plans and Reports 12

Appendix D: HED Rubrics for General Education Learning Outcomes 14

Essential Skill: Critical Thinking 14

Essential Skill: Communication 15

Essential Skill: Information and Digital Literacy 16

Essential Skill: Quantitative Reasoning 17

Essential Skill: Personal and Social Responsibility 18

Appendix E: Crosswalks for HED Essential Skills which must be assessed in the General Education curriculum 19

Essential Skills associated with each state-defined content area 19

Relationship between HED Essential Skills and NMHU Traits 19

References and Resources 20

Introduction: Outcomes Assessment at NMHU

Assessment of student learning outcomes at NMHU involves three distinct but inter-related tasks, each with different timelines and different entities responsible for oversight. These three processes are: 1) assessment of our common core (General Education Assessment), consistent with state guidelines; 2) assessment of academic programs (Annual Outcomes Assessment, Program Review, and Program Specific Accreditation); and 3) Co-Curricular Program Assessment. Support for all assessment activities is provided by the Office of Institutional Research and Effectiveness (OIER). See Table 1 for a summary of these tasks. Underlying all levels of assessment at NMHU are the four university-wide traits, discussed in more detail below.

Consistent with state requirements and the expectations of the Higher Learning Commission (HLC), assessment of the General Education program at NMHU focuses on the attainment of three Essential Skills for each General Education course, as well as the mastery of appropriate course content. See Appendix E for an outline of how the Essential Skills are mapped on to each of the content areas covered by the General Education curriculum.

Table 1: Summary of Assessment Tasks at NMHU

Assessment Task		Timeline	Overseeing Entity
General Education Assessment		Annual reporting cycle?	Academic Program Faculty
Academic Program Assessment	Outcomes Assessment	Two-year reporting cycle?	Academic Program Faculty
	Program Review	Every 5 years	Graduate programs: Office of Graduate Studies; Undergraduate programs: Academic Affairs Committee
	Program Specific Accreditation	Varies by program	Academic Program Faculty
Co-Curricular Assessment		Two-year reporting cycle	Dean of Students, CCOA Committee, Co-Curricular Program Coordinators

Overview of Outcomes Assessment Process

There are three basic steps that underlie each aspect of assessment:

1) **Defining** student learning objectives (outcomes)
2) **Evaluating** student success in achieving those objectives (assessment)
3) **Using** the results to implement improvements in programs (closing the loop)

A well-designed outcomes assessment program is based upon assessment activities at the course level, supplemented by program-level data. These data can then be aggregated to provide information regarding specific courses, major programs, the core curriculum, or the university as a whole.

All instructors are expected to have clear learning objectives for their classes, which are assessed at the assignment and course levels. These course-level learning objectives should be aligned with the objectives of the major program. Each program has an outcomes assessment plan in place that specifies

how this is accomplished. In addition, instructors of core curriculum courses are expected to align their learning objectives with the New Mexico state-mandated Essential Skills for their discipline. Finally, all programs should have learning objectives that are aligned with clear, university-wide expectations regarding outcomes for university graduates.

Assessment procedures at NMHU are based upon the following assumptions:

- All levels of assessment should inform and build upon the others.
- All faculty should be actively involved.
- Assessment should be embedded within regular course or program activities whenever possible.
- Assessment is an ongoing process.
- Assessment is concerned with evaluating the effectiveness of programs, courses, and services, not individuals.
- The specifics of outcomes assessment procedures should be flexible to accommodate the varied needs of the academic programs.
- The results of assessment activities should be clearly linked to program improvements.
- The results of assessment activities should be publicly available.

All outcomes assessment data are collected by the academic departments. Assessment reports will then be generated by the department and/or course faculty for such uses as:

- Assessment of NMHU students' achievement of the university-wide traits
- Assessment of the General Education core curriculum
- Academic program outcomes assessment
- Accreditation reports
- Data regarding the equivalency of online and face-to-face programs
- Data regarding the equivalency of main campus and center programs
- Comparative data regarding the achievement of student learning outcomes and university traits for underclassmen and upperclassmen
- Longitudinal data regarding student achievement of learning outcomes and university-wide traits over time

The Four University-Wide Traits

The purpose of defining and measuring the four university-wide traits is to determine to what extent we, as a university, are imparting the knowledge, traits, and skills we value into all of our baccalaureate and graduate degree recipients.

After surveying faculty and staff, the following four traits were adopted as our expectations for our graduates:

1. Mastery of content knowledge and skills
2. Effective communication skills
3. Critical and reflective thinking skills
4. Effective use of technology

These traits are reflected, as appropriate, on course syllabi and in the outcomes assessment plans of the academic programs, as well as in the assessment process for the General Education curriculum.

General Education Assessment at NMHU

As a liberal arts institution, assessment of our core curriculum is essential to the NMHU mission. Responsibility for oversight of the assessment of the general education program at NMHU resides with the Outcomes Assessment Committee of the Faculty Senate. Currently this process serves two distinct purposes: 1) to assess the extent to which our students demonstrate the traits identified by the NMHU faculty as defining an NMHU graduate; and 2) to assess the extent to which our students have attained the Essential Skills identified by the State Higher Education Department (HED).

Levels of General Education Oversight

Because of its critical importance in laying a solid academic foundation for student success, the general education curriculum is subject to oversight at multiple levels. These include the institutional level, the state level, and the accreditation level as mandated by the Higher Learning Commission (HLC).

At the institutional level, assessment activities focus on 1) attainment of content knowledge appropriate to the course, and 2) attainment of the four university-wide traits discussed above. It is expected that students who complete the core curriculum at NMHU will have achieved a broad range of knowledge as well as critical intellectual and personal characteristics that will enable them to be successful in their chosen field of inquiry.

At the state level, it is mandated that each course in the General Education curriculum focus on three Essential Skills as defined by HED. Assessment activities for these courses must demonstrate that students have achieved mastery in these Essential Skill areas, as defined with reference to assessment rubrics developed by HED for each Essential Skill. Additionally, the state mandates that assessment activities for General Education courses demonstrate that students have attained content mastery appropriate to each course. The following table shows the correspondence between the six content areas identified by the state for the General Education curriculum, and the three Essential Skills specified by the state for each content area.

Essential Skills associated with each content area			
General Education Content Area	**Essential Skill 1**	**Essential Skill 2**	**Essential Skill 3**
Communications	Communication	Critical Thinking	Information & Digital Literacy
Mathematics	Communication	Critical Thinking	Quantitative Reasoning
Science	Personal & Social Responsibility	Critical Thinking	Quantitative Reasoning
Social & Behavioral Sciences	Communication	Critical Thinking	Personal & Social Responsibility
Humanities	Information & Digital Literacy	Critical Thinking	Personal & Social Responsibility
Creative and Fine Arts	Communication	Critical Thinking	Personal & Social Responsibility

The Higher Learning Commission, which is the accrediting body for NMHU, also mandates that careful assessment of the General Education curriculum be conducted. While the HLC is not prescriptive with reference to the specific type of assessment program developed, the Commission has stressed the importance of demonstrating achievement of the four university-wide traits.

The Essential Skills identified by HED map closely onto the four university-wide traits, as demonstrated in the following chart:

Relationship between HED Essential Skills and NMHU traits				
Essential Skill	**Trait 1: Mastery of content knowledge and skills**	**Trait 2: Effective communication skills**	**Trait 3: Critical and reflective thinking skills**	**Trait 4: Effective use of technology**
Critical Thinking	Indirect		Direct	
Communication	Indirect	Direct		Indirect
Information & Digital Literacy		Indirect		Direct
Quantitative Reasoning	Indirect		Indirect	Indirect
Personal & Social Responsibility		Indirect	Indirect	

The close relationships that exist between the Essential Skills and the four-university wide traits helps to ensure that our assessment activities will meet the expectations of both the HED and the HLC, as well as meeting institutional expectations.

Summary of Overall Process for General Education Assessment

Oversight of the General Education assessment process will be managed by the Outcomes Assessment Committee, individual department chairs, and the appropriate deans. The Office of Institutional Effectiveness and Research (OIER) will be responsible for coordinating and supporting the mechanics of the process and for managing document and data submissions.

General Education Outcomes Assessment begins with the development of an Assessment Plan, which should be revised on an annual basis. A well-developed plan is the key to collecting useful and valid data. Specifics on what should be included in the plans and guidelines for developing them are discussed in the next section. Once the faculty responsible for each General Education course have developed their plans, they are sent to the appropriate dean for approval, and then sent to the OIER, which has responsibility for organizing and maintaining the plans. The OIER will examine reports to ensure all HED criteria have been met.

All instructors of courses in the General Education curriculum are asked to submit assessment data at the end of each semester. Instructors are asked to identify an assessment method (e.g. an assignment, exam, term paper, class project, etc.) which they would use to assess each student's mastery of each of the three Essential Skills applicable to their course, as defined by the state. The instructors will rate each student on a scale of 1 to 3, reflecting the students level of master of each Essential Skill. (The state has provided a rubric for determining mastery of each Essential Skill; see Appendix D for a copy of these rubrics.) Additionally, the Assessment Plan should indicate which of the four NMHU traits are addressed by the assessment methods selected.

Assessment data are entered via an Excel sheet prepared by the Office of Institutional Effectiveness and Research (OIER). An example of the Excel template is provided in Appendix B.

After the data are collected, faculty for each General Education course will prepare an Assessment Report to determine the extent to which the Essential Skills and other assessment goals for that course have been attained. Reports include a section on the interpretation of the data and another section specifying how the data will be utilized for program improvement.

Currently Highlands utilizes a system of peer review to provide feedback to faculty regarding the Assessment Reports. Each fall, after the previous year's outcomes assessment report is completed, a faculty member from another discipline will be asked to review each report. The review is guided by the feedback form in Appendix C. After discussion of the feedback, course faculty submit the final version of their report to their dean and to the Office of Institutional Effectiveness and Research. Completed reports will be posted on the OIER web site where they are available to the university community and to prospective students and their parents.

As a final step, the Outcomes Assessment Committee and the OIER will prepare a summary report of the General Education assessment results, summarizing areas of strength and weakness in the General Education curriculum as a whole.

The General Education Assessment Plan

In accordance with the NMHU philosophy of keeping outcomes assessment activities flexible, there is no specific format for the General Education Assessment Plan. However, there are general requirements. Each plan must include the following elements:

1) The mission statement of the academic program within which the General Education course is located.
2) A clear specification of the three Essential Skills mandated by the state for that course, and identification of which of the four University-wide traits are addressed in the course.
3) A description of the assessment methods to be used to demonstrate each Essential Skill and University-wide trait. Programs are welcome to have more than one method for each Essential Skill or trait, but care should be taken not to make data collection too cumbersome. A significant portion of the data should be reasonably objective in nature, and specific to the Essential Skill or trait, not just whether or not the students passed a particular class. Programs should consider whether it is appropriate to use standardized test scores of some kind.
4) Clear criteria for judging whether each Essential Skill or trait has been attained. The state has provided rubrics for measuring students' level of mastery of each of the Essential Skills (see Appendix D). If the data indicate that an outcome has not been met that might indicate the need for revisions in some aspect of the course.

Appendix A provides an outline of a General Education Assessment Plan and instructions for constructing the plan.

Deciding how to assess student learning outcomes is the most difficult part of designing an assessment plan. The following sections provide some guidelines for consideration while designing assessment methods.

Embedded or Add-on Assessments

Assessments can already be *embedded* in courses or other program activities, or they can be *add-on assessments* that are specifically conducted for the General Education assessment process. Assessments that are already embedded in courses (assignment grades, practicum evaluations, etc.) can provide excellent assessment data because these types of assessments are likely to be direct rather than indirect measures of student learning. Embedded assessments can possess excellent validity since they are designed directly by faculty to assess students. In addition, since faculty members are collecting these data already, the assessment data can be collected without creating additional work for faculty members.

Direct or Indirect Assessments

Assessment measures should be as closely linked to Essential Skills and university-wide traits as possible. Whenever feasible they should be *direct measures* of student learning. Examples of direct measures of student learning include:

- Writing samples
- Comparisons between pre and post-test scores (this does not have to be the exact same test as long as you are testing the same area of knowledge or skills)

- Class assignments or tests
- Case studies
- Individual and/or group projects and presentations
- Service-learning projects
- Student performance on standardized tests

Indirect measures may provide important information, but they are not directly linked to student learning. For example, course grades are an indirect measure because they are assessment of a student's performance in the class as a whole, including such things as attendance and class participation, rather than assessment of his or her learning of some particular knowledge or skill. While faculty may choose to include some of these indirect measures in their assessment plan, they should also work to ensure the inclusion of direct measures of the Essential Skills and university-wide traits as described above. Examples of indirect measures of student learning include:

- Course grades
- Student reported data on learning outcomes

Use of specific assignments and student grades

While course assignments can be excellent direct measures of student learning, there are potential problems with using student assignment grades, including their global nature (they are often not clearly related to a specific skill or knowledge set), their perceived subjectivity, and the fact that grading standards for the same assignment can vary widely between instructors. Grades work best when the assignment is a direct and specific measure of the Essential Skills and university-wide traits.

Use of scoring rubrics

Often the most important student learning outcomes are the ones most difficult to assess with any recognized level of objectivity. These outcomes include areas such as communication skills or critical thinking skills. Programs often have little choice but to use course assignments as a means of assessing these outcomes. In these cases, the use of a scoring rubric can bring clarity and a measure of objectivity to the assessment process. For each of the Essential Skills, the state has provided a rubric to help guide assessment of a student's level of master of that skill (see Appendix D). Additionally, faculty are encouraged to develop rubrics to facilitate the assessment of other learning outcomes.

Additional material for the Outcomes Assessment Report

After designing the plan and collecting the data, the individuals responsible for assessment of each General Education course will produce an assessment report. The course faculty will then need to discuss the data with reference to the original plan, interpret what the data mean, and explain how the results will be used to improve the course and develop a revised plan for the next assessment cycle. The documentation that assessment results have been used to design and implement course improvements is often referred to as "closing the loop". This step is critically important and is mandated by the Higher Learning Commission as part of any assessment process.

Appendix A: General Education Assessment Plan and Report Template

_____

(General Education course)

Assessment cycle

[Insert assessment cycle here, e.g. AY2017-18]

MISSION AND GOALS

Program Mission

[Insert course program mission here]

Essential Skill 1

[You will have 3 Essential Skills as specified by the state common core]

NMHU Traits Specifically Linked to Essential Skill 1

[Identify the NMHU traits that link to this Essential Skill]

First Means of Assessment for Essential Skill 1

[Describe how the first Essential Skill will be assessed]

Second Means of Assessment for Essential Skill 1

[Include if you have more than one means of assessing the first Essential Skill. We do not recommend having more than two means of assessment for each Essential Skill]

Essential Skill 2

NMHU Traits Specifically Linked to Essential Skill 2

First Means of Assessment for Essential Skill 2

Second Means of Assessment for Essential Skill 2

[Repeat the headings as appropriate for your plan]

Instructions for Preparing a General Education Assessment Plan

Essential Skills

For each General Education disciplinary area, the state has identified three Essential Skills that all students who complete the General Education curriculum are expected to attain. The state has provided a rubric for each Essential Skill to facilitate the assessment of students' mastery of those skills.

NMHU Traits Specifically Linked to Essential Skills

If the Essential Skills identified by the state link to one or more of the NMHU Traits indicate that here. The Essential Skills do not have to link to one of the traits, but the chances are good that they will.

The traits are:

- Mastery of Content Knowledge and Skills
- Effective Communication Skills
- Critical and Reflective Thinking Skills
- Effective Use of Technology

Means of Assessment for Essential Skills

Under this heading you describe how each Essential Skill will be measured. Only one means of assessment is required, but more than one may be included (we do not recommend more than two means of assessment for each Essential Skill).

Descriptions of the means of assessment should include the criterion for success, for example "80% of students will score 85% or better on the final paper". Whenever possible, base the criterion on the percentage of students the program expects to meet a specific threshold (as in the example just given).

Appendix B: General Education Assessment Template and Instructions

	A	B	C	D	E
1	New Mexico Highlands University: General Education Assessment - Data Template				
2					
3	Academic Year: 2018-2019				
4	Course:				
5					
6	Essential Skill 1 [as specified by state]:				
7	Assessment method 1:				
8	Assessment method 2:				
9	Essential Skill 2 [as specified by state]:				
10	Assessment method 1:				
11	Assessment method 2:				
12	Essential Skill 3 [as specified by state]:				
13	Assessment method 1:				
14	Assessment method 2:				
15					
16	NMHU Traits		Essential Skill 1	Essential Skill 2	Essential Skill 3
17	Critical and Reflective Thinking Skills		Yes	No	No
18	Effective Communication Skills		No	Yes	No
19	Effective Use of Technology		No	No	Yes
20	Mastery of Content Knowledge and Skills		No	No	Yes
21					
22		Student ID			
23	Enter "3" if this student is assessed for this				
24	Essential Skill at the level of "Proficient".				
25					
26	Enter "2" if this student is assessed for this				
27	Essential Skill at the level of "Developing".				
28					
29	Enter "1" if this student is assessed for this				
30	Skill at the level of "Emerging".				
31					
32					
33					
34					
35					
36					
37					

Instructions for Using the General Education Assessment Template

1) In row 3 enter the appropriate academic year.
2) In row 4, enter the course rubric and name.
3) In rows 6, 9, and 12, enter the three learning outcomes assigned by the state for this course.
4) In row 7, enter the assessment method for Learning Outcome 1. If appropriate, use row 8 to enter a second method of assessment. Do the same for the other learning outcomes.
5) In rows 17 through 20, indicate which NMHU traits are addressed by each learning outcome.
6) In rows 23 on, enter the ID for each student in the course, then indicate the level of proficiency for that student on each of the three learning outcomes. Enter 1, 2, or 3 in accordance with the criteria specified in the rubric provided the state for that learning outcome.

Appendix C: Peer Review Feedback Form for General Education Assessment Plans and Reports

NEW MEXICO HIGHLANDS UNIVERSITY

Peer Review Feedback Form

PROGRAM:_____FEEDBACK FORM FOR GENERAL EDUCATION ASSESSMENT PLANS AND REPORTS

Please rate the Level of Performance for each measure as "Exceeds" "Meets" or "Needs Improvement" .		
MISSION: (Assessment Plan)	***Level of Performance***	***Comments***
Department mission is identified		
Department mission statement is student-focused		
LEARNING OUTCOMES: (Assessment Plan)	***Level of Performance***	***Comments***
Learning outcomes are identified for the department (not for individual class or course)		
Learning outcomes are clear		
Learning outcomes are measurable		
Learning outcomes span multiple learning domains (i.e., cognitive, behavioral, psychomotor)		
Learning outcomes are student-focused		
Learning outcomes clearly link to the department's mission statement		
ASSESSMENT METHODS: (Assessment Plan)	***Level of Performance***	***Comments***
Multiple assessment measures are identified		
Assessment measures are aligned to learning outcomes		
Direct measures of student learning are emphasized		
Assessment measures allow student performance to be gauged over time		
Assessment design includes a timeline for implementation and administration		
If the program is present at the Centers, are they included in the data collection and report?		

REPORTING AND USE OF RESULTS: (Assessment Report)	***Level of Performance***	***Comments***
Assessment results are reported		
Assessment results are clear		
Information from the assessment results is shared with multiple constituents		
The assessment results are reviewed and discussed by department faculty		
Assessment results indicate the extent to which priority learning outcome(s) have been achieved		
Assessment results are used to improve student learning (e.g., change/revise learning outcomes,		
change/revise courses or curriculum)		
Assessment results are used to identify how the assessment process should be modified		
Is this report ready to be posted publically on the web?		

Appendix D: HED Rubrics for General Education Learning Outcomes

Essential Skill: Critical Thinking

Essential Skill: Critical Thinking

Critical thinking is the intellectual process of evaluating information, explanations, and arguments. This process is common among disciplines. Proficient critical thinkers are able to apply informed and reasoned thinking to problems in their fields.

Because of the process-oriented nature of critical thinking, a course that teaches the skill of critical thinking needs to cover, at least to some extent, all four component skills below, each of which is intimately and logically connected with the others. It is not simply inconsistent with critical thinking to formulate one's conclusions and then go looking for supportive evidence afterward. As students collect and assess evidence, they must have some understanding of the logical relation between the evidence they are collecting and the conclusions they are trying to reach or the problems they are trying to solve. However, it is entirely consistent that some courses place more emphasis on a particular subskill or subskills. A history course emphasizing archival research might place particular emphasis on the evidence acquisition subskill, and a philosophy course might place more emphasis on the reasoning subskill.

Component Skill	Emerging	Developing	Proficient	Assessment Suggestions
Problem Setting: Delineate a problem or question.	Students state problem/question appropriate to the context.	Students state and define an open ended problem/question appropriate to the context.	Students state, define, and describe components of an open ended problem/question appropriate to the context.	Formulate an experiment or research question Create a concept map Define a situation that can be addressed by a proof Describe a problem that will be developed into a paper Create a problem statement based on a topic of interest Identify perspectives and views on a problem
Evidence Acquisition: Identify and gather the information/data necessary to address the problem or question.	Students gather evidence addressing the problem/question from a mix of sources.	Students gather evidence addressing the problem/question from sources appropriate to the context while demonstrating some awareness of acquisition process, including personal assumptions.	Students gather an appropriate scope and depth of evidence sufficient to address a problem/question in context while demonstrating awareness of acquisition process, including personal assumptions.	Develop an annotated bibliography Collect qualitative and/or quantitative data
Evidence Evaluation: Evaluate evidence/data for credibility (e.g. bias, reliability, validity), probable truth, and relevance to a situation.	Students are able to describe appropriate sources.	Students are sometimes able to evaluate credibility and relevance of sources in addition to demonstrating some awareness of the evaluation process, including personal assumptions	Students are able to evaluate credibility and relevance of sources in addition to demonstrating an awareness of the evaluation process, including personal assumptions.	Differentiate relevant from irrelevant information Differentiate fact from opinion Assess and defend authority and credibility of data or other evidence Identify minority opinions and critical information Assess agreement among authorities
Reasoning/Conclusion: Develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.	Students can sometimes identify common logical flaws. Students can sometimes describe weak and strong arguments.	Students can identify common logical flaws. Students can sometimes differentiate weak and strong arguments. Students can sometimes identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.	Students can identify common logical fallacies. Students can differentiate weak and strong arguments. Students can identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.	Assess an argument regarding whether the premises support the conclusion Assess certainty or probability that a conclusion is true Formulate a recommendation or persuasive argument supported by credible evidence Develop a conclusion based on experiments or data gathered

Essential Skill: Communication

Essential Skill: Communication

Courses in this area should begin to prepare students for communication in subsequent college courses and in the workplace, personal and social spheres, and civic life. The courses should prepare students to become versatile communicators who can respond to a diverse range of situations with appropriate written, oral, visual, or digital texts and performances.

Component Skill	Emerging	Developing	Proficient	Assessment Suggestions
Genre and Medium Awareness, Application, and Versatility: Identify and communicate in various genres 'and mediums (oral, written, and digital) using strategies appropriate for the rhetorical situations (ie., attending to audience, purpose, and context)	Students communicate in various genres and mediums.	Students communicate in several genres and mediums, demonstrating awareness that different genres and mediums have different limitations and strengths.	Students communicate effectively in several genres and mediums, demonstrate awareness of limitations and strengths of each, and evaluate the effectiveness of their communications with regard to appropriateness to the rhetorical situation.	To demonstrate genre awareness, application, and versatility, students are asked to communicate well in genres such as a lab report, an essay, a white paper, a research proposal, a reflective response to readings, a marketing brochure and in varied mediums such as oral presentations, websites, written document.
Strategies for Understanding and Evaluating Messages: Apply strategies such as reading for main points; seeking key arguments, counter-arguments, rebuttals; locating supportive documentation for arguments; reading with a specific stakeholder lens; applying a theoretical lens (e.g. cultural, political, economic) to understand and evaluate messages in terms of the rhetorical situation (audience, purpose, and context).	Students use more than one for understanding and evaluating messages. They describe the central idea of a message.	Students use several strategies to understand and evaluate messages. They demonstrate awareness that different rhetorical situations may require different strategies.	Students use a wide range of strategies for understanding and evaluating messages. They also evaluate the effectiveness of strategies they use for interpreting messages in different rhetorical situations.	Use writing or speaking to convey their interpretation of materials and to assess what they have heard, read, or seen after applying strategies for evaluating messages such as reading for main points; seeking key arguments, counter-arguments, rebuttals; locating supportive documentation for arguments; reading with a specific stakeholder lens; applying a theoretical lens (e.g. cultural, political, economic). Examples of materials for assessing: Portfolio, presentation, writing assignment, oral presentation, digital assignment. To assess developing and proficient levels, students' work should include reflections in which students evaluate their choices and overall performance.
Evaluation and Production of Arguments: Evaluate the authority of sources in their own arguments and those of others; distinguish among supported claims, unsupported claims, facts, inferences, and opinions. In arguments, integrate support for their own claims with information from sources that are used and cited ethically and appropriately (using a major citation system such as MLA and APA).	Students understand that sources have varied validity and authority and that claims can be facts, opinions, inferences, and supported or unsupported.	Students evaluate a source's authority; distinguish among facts, opinions, and inferences; and identify claims that are supported and unsupported.	Students identify and develop claims that are supported by evidence and reasoning; evaluate and integrate arguments of others into their own written and spoken arguments.	Assess for student understanding of the authority (e.g., credibility, soundness) of what they read, hear, or see. Assess students' oral or written work in which they produce arguments of their own after evaluating others' relevant arguments. To demonstrate skills in producing arguments employing others' sound arguments, students effectively employ others' material within their own well-argued texts or presentations. Examples of materials for assessing: Portfolio, presentation, writing assignment, oral presentation, digital assignment.

Suggestions for assessment

Written documents and oral and electronic presentations should prepare students for or resemble those that graduates of the department or program typically perform for their work or lives. For instance, if assessment of recent graduates from a finance program determines that its alumni take jobs requiring them to address their communications almost exclusively to lay audiences for the purpose of recommending sound, personalized investment strategies, then students' ability to deliver effective performances in that genre, for that audience, and about similar ill-structured problems (with no single "right" answer) would be an appropriate measure of the competency.

Essential Skill: Information and Digital Literacy

Essential Skill: Information & Digital Literacy

Courses that include the skill of information and digital literacy should begin to prepare students for upper division college courses, the workplace, and civic life. Information literacy spans across genres and content within the general education core and is not tied to a specific media or format. A course focused on information and digital literacy as an essential skill should encompass three of the four component skills.

Component Skill	Emerging	Developing	Proficiency	Assessment Suggestions
Authority and Value of Information: Recognize the interdependent nature of the authority and value of information and use this knowledge ethically when selecting, using, and creating information.	Students recognize that information is produced by individuals and communities who may or may not be reliable and who may have a particular point of view; recognize that new knowledge builds upon existing knowledge, give credit through attribution, and do not plagiarize.	Students use established criteria to evaluate information, formats, and sources and to differentiate between reliable and convenient information; make informed choices regarding online actions in awareness of issues related to privacy and the commodification of personal information; safeguard personal information of self and others.	Students evaluate types of authorities and integrate new perspectives and alternative authoritative voices; recognize that citing preserves authority and gives credit through proper attribution; students apply an appropriate citation style	Author's credentials evaluation Source authority evaluation Citation formatting exercise Quoting, paraphrasing, and summarizing exercise Privacy exercise Copyright fair use application Speech or debate Essay Annotated bibliography Research paper
Digital Literacy: Understand, communicate, compute, create, and design in digital environments.	Students know current and common digital vocabulary; understand how to use common digital devices; troubleshoot basic problems associated with operating digital devices	Students select and use appropriate applications to create and effectively communicate; use common digital education and social communication platforms; use current computational tools.	Students demonstrate fluency using common digital education and social communication platforms; design effective digital media; demonstrate fluency in using current computational tools including identifying errors or misleading information.	Digital vocabulary test Demonstration of how to use common devices Demonstration of solving basic problems Presentation project; Communication project Typing test; Computation project Input creation test such as talk to text Digital error analysis – demonstration or report Design project – audio, visual, or both
Information Structures: Select, use, produce, organize, and share information employing appropriate information formats, collections, systems, and applications.	Students articulate basic features and functions of common information formats, collections, systems, and applications; search collections and systems using keywords and simple search strategies.	Students select and use information formats, collections, systems, and applications that best match information needs; search collections and systems using advanced iterative search strategies and techniques.	Students use applications to create and organize useful content in appropriate information formats and systems; recognize and explain how information is communicated using distinct formats created for a purpose and recognize that information systems organize and disseminate formats.	Close reading, format comparison, format evaluation, primary and secondary source comparison, speech, essay, lab report, web site, blog, news article, critique, business report, literature review, research paper, database and academic collection comparison, academic collection selection exercise, research journal. Personal information system, development of file systems, calendars, contacts, or citation management systems.
Research as Inquiry: Engage in an iterative process of inquiry that defines a problem or poses a question and through research generates a reasonable solution or answer.	Students recognize that research is an iterative, non-linear, creative process that leads to new knowledge and requires curiosity, reflection, critical thinking, and persistence.	Students define a problem or pose a question and find and evaluate relevant information; recognize that scholarship is a conversation that occurs over time among communities engaged in research.	Students define an appropriate scope of investigation, formulate research questions, and reframe research questions based on new information; analyze, evaluate, and synthesize ideas gathered from multiple sources to draw reasonable conclusions.	Research question formulation, thesis statement formulation, search statement construction, concept map, information cycle exercise, information evaluation, search result evaluation, critical reading, research journal.

The Information & Digital Literacy essential outcomes were adapted from the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education (http://www.ala.org/acrl/standards/ilframework) and were blended together and combined with Digital Literacy skills.

Essential Skill: Quantitative Reasoning

Essential Skill: Quantitative Reasoning

Quantitative reasoning involve representing and communicating quantitative information, analyzing and formulating quantitative arguments, and solving quantitative contextual problems. Contextual problems are "word problems" situated within a context relevant to the course content (e.g. economics, psychology, chemistry) or otherwise accessible to students. They may model aspects of real-world problems while maintaining an appropriate level of complexity for general education students.

Component Skill	Emerging	Developing	Proficient	Assessment Suggestions
Communication/Representation of Quantitative Information: Express quantitative information symbolically, graphically, and in written or oral language.	Students explain the meaning of graphics, numbers, or algebraic symbols within a given context.	Emerging skill descriptions plus: Students translate mathematical graphics and symbolism into written or oral language; translate written or oral language into mathematical symbols and graphics.	Developing skill descriptions plus: Students integrate written and symbolic mathematical constructs in describing particular contexts.	Exam Laboratory report Project Critique of media articles Written assignment: • report • paper • letter • article
Analysis of Quantitative Arguments: Interpret, analyze and critique information or a line of reasoning presented by others.	Students summarize quantitative arguments presented by others.	Emerging skill descriptions plus: Students differentiate and describe the parts of a quantitative argument presented by others; compare the conclusions of a quantitative argument with conclusions from other reliable sources.	Developing skill descriptions plus: Using appropriate techniques of mathematical proof or statistical analysis, students evaluate each component of a quantitative argument for mathematical validity and demonstrate whether an overall quantitative argument is valid, invalid, or questionable.	
Application of Quantitative Models: Apply appropriate quantitative models to real-world or other contextual problems.	Students identify, describe, and classify quantitative information needed to address contextual problems.	Emerging skill descriptions plus: Students identify appropriate mathematical or statistical models to represent quantitative information in contextual problems; apply those models to generate numeric predictions.	Developing skill descriptions plus: Students assess the validity of numeric predictions and correct unreasonable findings; analyze and interpret results; use them in a quantitative argument to support a position or line of reasoning or solve a contextual problem.	

Essential Skill: Personal and Social Responsibility

Essential Skill: Personal and Social Responsibility

The following rubric describes the progression in skill level and understanding that students should demonstrate as they develop their personal and social responsibility skills in general education classes. It is suggested that a course designated as teaching personal and social responsibility skills include outcomes related to two of the rubric's component skill areas. The rubric is intended to provide guidance to faculty members designing courses and assessment tools for evaluating student learning of personal and social responsibility skills; it should not be viewed as establishing expectations for a certain level of achievement at the end of a single general education course.

Component Skill	Emerging	Developing	Proficient	Assessment
Intercultural reasoning and intercultural competence	Students describe a range of personal and social justice issues as they relate to specific contexts.	Students develop strategies for working with one's own and others' perspectives and ethnocentrism.	Students evaluate personal and social justice issues as they relate to specific contexts and compare and contrast multiple solutions across social and cultural relationships.	Presentations, case studies, projects, papers, online discussions, blogs
Sustainability and the natural and human worlds	Students explain the impact our actions have on the sustainability of the natural and human worlds.	Students examine the relationship among environmental, socio- cultural, political, and economic systems as they interact with and affect the sustainability of the natural and human worlds.	Students analyze specific local or global issues and develop strategies for creating just, sustainable systems in the natural and human world.	Papers, projects, presentations, case studies, online discussions, blogs
Ethical reasoning	Students recognize a variety of ethical theories and place them in specific contexts.	Students describe ethical issues in specific contexts and explain the relationship between ethics and ethical systems and moral norms.	Students compare a range of ethical perspectives and propose an ethical solution based on one or more of those perspectives.	Papers, projects, presentations, online discussions, blogs, case studies
Collaboration skills, teamwork and value systems	As a group member, students demonstrate shared ethical obligations and intercultural sensitivity.	Students demonstrate personal and mutual accountability and make use of individual strengths in meeting group objectives.	Students effectively complete a group project, reflect on the impact and effectiveness of teamwork, and, based on that reflection, describe ways to improve future collaborative work.	Papers and reports, group projects that culminate in a presentation, paper, or other product; evaluation of or reflection paper on teamwork collaboration, including a self-assessment.
Civic discourse, civic knowledge and engagement – local and global	Students explain diverse positions on issues, values, or practices and present one's own position on a specific problem related to one or more of the issues, values, or practices studied.	Students demonstrate the ability to participate in respectful civic dialogue that shares differing perspectives and recognize that there are multiple valid responses to local and global issues.	Students critically inquire into and deduce from evidence the organizational, cultural, economic, or political factors that hinder or support solutions to local and global problems.	Discussions, projects, blogs, debates, papers incorporating and responding to multiple perspectives

Sources: the WICHE Passport rubrics, PDQ, LEAP Value Rubrics, and the Carnegie Foundation. Examples of assessments are described in the "Passport Learning Outcomes and Proficiency Criteria" that could be used to measure the achievement of personal and social responsibility skills in discipline-specific contexts (see http://www.wiche.edu/passport/interstate_passport_components.)

Appendix E: Crosswalks for HED Essential Skills which must be assessed in the General Education curriculum

Essential Skills associated with each state-defined content area

Essential Skills associated with each content area			
General Education Content Area	**Essential Skill 1**	**Essential Skill 2**	**Essential Skill 3**
Communications	Communication	Critical Thinking	Information & Digital Literacy
Mathematics	Communication	Critical Thinking	Quantitative Reasoning
Science	Personal & Social Responsibility	Critical Thinking	Quantitative Reasoning
Social & Behavioral Sciences	Communication	Critical Thinking	Personal & Social Responsibility
Humanities	Information & Digital Literacy	Critical Thinking	Personal & Social Responsibility
Creative and Fine Arts	Communication	Critical Thinking	Personal & Social Responsibility

Relationship between HED Essential Skills and NMHU Traits

Relationship between HED Essential Skills and NMHU traits				
Essential Skill	**Trait 1: Mastery of content knowledge and skills***	**Trait 2: Effective communication skills**	**Trait 3: Critical and reflective thinking skills**	**Trait 4: Effective use of technology**
Critical Thinking	Indirect		Direct	
Communication	Indirect	Direct		Indirect
Information & Digital Literacy		Indirect		Direct
Quantitative Reasoning	Indirect		Indirect	Indirect
Personal & Social Responsibility		Indirect	Indirect	

*HED guidelines for General Education assessment include the requirement that courses-specific content mastery also be evaluated

References and Resources

Allen, Mary; Noel, Richard, C.; Rienzi, Beth, M.; and McMillin, Daniel, J. (2002). *Outcomes Assessment Handbook.* California State University, Institute for Teaching and Learning, Long Beach, CA.