

Northwestern Michigan College's Assessment Plan 2017-2018

Assessment of student learning is described as a systematic process that collects data about student learning in order to inform changes and actions that affect student learning. This is an ongoing process aimed at understanding and improving student learning (Walvoord, 2010).

Assessment involves:

- Making our expectations explicit and public ([Board Policy D-100.00](#));
- Setting appropriate criteria and expectations for quality learning; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches these expectations and standards;
- Using results to document, explain, and improve performance.

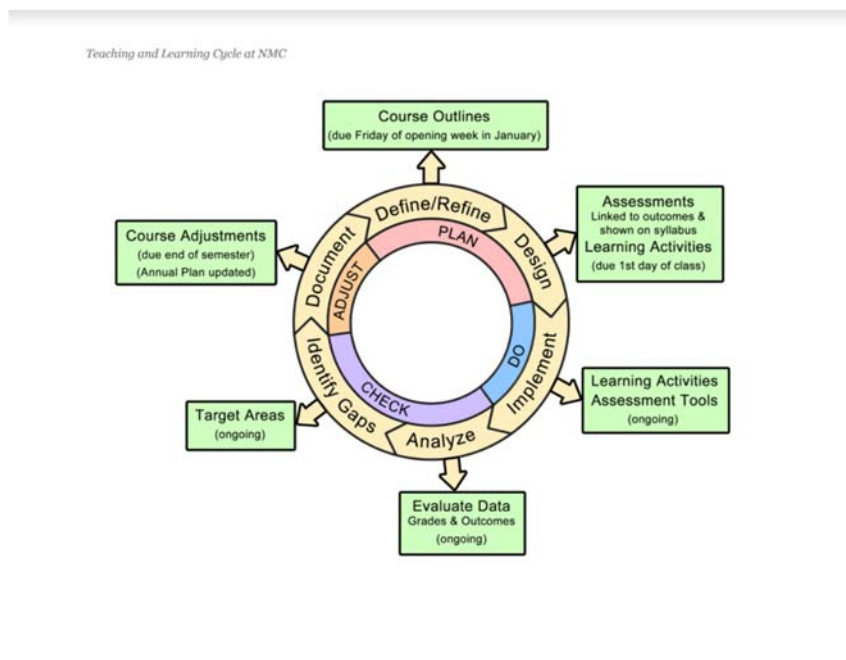
Specifically, the vision of the College is one that values students by keeping learning at the center ([Board Policy C-102.00](#)). We want to know whether students are achieving the level of learning that we expect, and we want to use the information generated from our assessment results to take action within our courses, and use resources efficiently.

Northwestern Michigan College (NMC) is committed to assessing student learning in academic and student service programs, training programs, and courses. Assessment is conducted using summative and formative methods to collect valid and reliable data and information that is used to drive formative curricular and instructional development for the purpose of improving student performance on the General, Program, and Significant Learning Outcomes ([Staff Policy D-102.01](#)). Faculty and Academic Area Chairs assess general education and significant learning outcomes each semester, and program outcomes as needed.

Steps in the Assessment of Student Learning Process:

- 41 Identify the outcome(s) to assess
- 51 Decide how outcome(s) will be measured:
- 61 Collect data
- 71 Analyze data and draw inferences. Decide whether changes/improvements to the curriculum and/or to teaching strategies are warranted in order to improve student learning.
- 81 Make changes
- 91 Collect data
- :1 Analyze data and draw inferences. Decide whether changes/improvements to the curriculum/teaching strategies improved student learning
- ;1 Repeat

The Teaching and Learning Cycle Conceptual Framework is depicted in the following image below.



The NMC General Education Outcomes (GEOs) are measured in the context of courses and programs in order to understand how the curriculum and student experiences are preparing students in [Communication](#), [Critical Thinking](#), and [Quantitative Reasoning](#). Faculty are responsible for identifying and creating measurement instruments that reflect the appropriate contextual learning in the courses and programs in which they teach. A college-wide rubric for each GEO has been created for the respective outcome for faculty to use when assessing the identified GEO within their course.

Faculty score all GEOs each semester. This process began in Fall 2016 with the Critical Thinking GEO, followed by Quantitative Reasoning in Spring 2017. In Fall 2017, the Communications GEO will be added resulting in all three GEOs being assessed each semester. This process will allow for a more consistent process in assessment as well as for longitudinal data to be collected on students. The data will be examined to determine if students improve in the skills outlined in each GEO during their tenure at NMC.

Once a baseline is established, programs and departments may decide which Program Learning Outcomes (PLOs) and Significant Learning Outcomes (SLOs) are assessed. A faculty member may then choose to focus on a few of the competencies associated with a particular outcome. This decision is made based on the data and information needed to best inform program and curricular development. There are a variety of reasons that help to determine which outcomes will be measured:

- 41 Examining evidence of student learning and determining where action is needed in order to improve student performance;
- 51 Identifying an area of concern that needs to be studied;
- 61 Identifying data or information that would help to better understand student learning;
- 71 Identifying/using a new instructional strategy or process that needs to be incorporated within the curriculum or service.
- 81 Considering accreditation and industry learning standards

Roles and Responsibilities

NMC's processes for articulating student learning outcomes, determining the assessment techniques, and using the results for improvement are driven by faculty members ([Staff Policy D-102.01](#)).

At the institutional level, the Curriculum Committee, a subcommittee of the Faculty Council, is responsible for developing the general education outcomes, overseeing assessment methods, and reviewing institutional results in order to identify improvement actions based on those results. This committee, together with the Educational Services Instructional Management Team (ESIMT), and the Center for Instructional Excellence (CIE), uses the results to encourage faculty to modify learning activities within the curriculum when appropriate. The Curriculum Committee also evaluates assessment methods and recommends modifications in order to ensure that the processes provide useful information.

To support these three college teams, the Assessment Team (AT) serves in the role as the college's check in its PDCA model in the area of institutional, programmatic and course-level learning outcomes. In that role, AT is responsible for identifying any gaps in the assessment processes and recommending to established committees the adjustments needed to improve the effectiveness of assessment process at Northwestern Michigan College. AT will participate in the HLC review by providing information about the college's current assessment processes and improvements.

AT reports to the Curriculum Committee for all areas dealing with gaps in course outcomes and any needed curricular changes in programmatic or institutional outcomes. AT concurrently reports to ESIMT about gaps in course and program outcomes in their particular academic areas. AT reports to CIE about any professional development needs that are identified to address gaps in our processes.

Faculty members work on sub-committees from Curriculum Committee to develop the general education outcomes and to participate in project work to create new assessment methods when necessary. The faculty sub-teams develop rubrics for use in creating or revising assignments across the curriculum and for assessing student work. The rubrics define the competencies for the general education outcomes and are available on the Office of Research, Planning, and Effectiveness ([ORPE](#)) employee site on the Assessment web page.

Working alongside the Assessment Coordinator and Curriculum Committee, ORPE is responsible for designing valid and reliable assessment methodologies that provide actionable data to those that make decisions regarding the improvement of student learning on the general education outcomes. ORPE collaborates with the Curriculum Committee and with academic area chairs to plan and implement the methods for assessment of the general education outcomes. The Assessment Coordinator (Chair of the Assessment Team) is equally housed in both ORPE and as a faculty member. The Assessment Coordinator is an ex-officio member of the Curriculum Committee.

At the program level, academic area chairs and faculty program managers are responsible for developing programmatic student learning outcomes and for ensuring that all relevant assessment data is being collected and used in the improvement of student learning.

At the course level, faculty members are responsible for developing course level learning outcomes, assessing course outcomes and using the results to improve student achievement in their classes, and documenting improvement actions on course learning outcomes.

Institutional-level Assessment Process Methodology

Faculty members and academic leadership declare which courses support the general education outcomes based on course level learning outcomes. Course level support for general education outcomes is recorded on both course outlines and syllabi, stored in the student information system (Banner), and then tracked in the learning management system (Moodle). A spreadsheet of outcome support by course and outcome is available on the ORPE employee site under Assessment and serves as a curriculum map linking courses with our general education outcomes.

While the institutional-level reporting is necessary for many reasons, the data collection, and any actions taken on that data is the responsibility of divisions and departments. Divisions and/or departments have control over how they will take action in regard to the data they generate, and is documented on their operational A3.

Every Academic Area that offers a course that supports General Education Outcomes is responsible for:

- Aligning at least one course outcome to the respective general education outcome.
- Making sure that courses have assignments and learning activities that address these outcomes. ([See link regarding summative and formative assessments here.](#))
- Gathering information about student achievement of the goals through:
 - Analysis of a sample of student work, and/or
 - Student survey, interview, or focus groups
- Creating a system for using assessment information at the department level for improvement that would be documented in the academic area/department A3.

At the end of the semester, a report from each instructor is submitted to the Assessment Coordinator. This report includes:

- Areas of student achievement strengths or concerns in which the instructor has identified.
- Actions that the instructor or academic area are taking.
- Any issues the instructor or academic area believes should be addressed at the institutional level.

The Assessment Coordinator will then examine the reports from instructors, analyze the data entered into the learning management software (Moodle), make recommendations for action, and create any necessary reports for interested parties.

Analysis and Results

Once scoring for the outcome is completed, ORPE will analyze the results. When the analysis of the scores is complete and made available, percentages of students with total scores in the Proficient, Sufficient, Developing, or Deficient ranges will be used to determine if NMC's performance on the general education outcomes is improving, holding steady, or declining. The finer analysis, capability by capability, provides enough specificity to inform instructors' course or assignment revision. A related task is to gauge whether students improve in their skills with exposure to NMC's curriculum. ORPE can further analyze whether variables such as accumulated credits or developmental placement impact achievement on the outcomes.

A complete report, including comparisons with previous results for a given outcome and areas of strength or in need of improvement, is published and distributed to faculty and those teams whose activities involve general education goals and methods. The assessment results will be used to guide improvement actions. Typically, the most detailed form of improvement modification takes place at the course level which provides instructors the ability to fine-tune assignments and other learning activities. Instructors, assisted by the Assessment Coordinator or Instructional Designer, can review assignments for the alignment with the outcome rubrics.

Program Learning Outcomes and Assessment

Program assessment is the measurement of collective student outcomes, not individual outcomes, at the program level. The program outcomes are found on each program's Operational Plan (A3). The focus is on performance of the program, not on performance of individual students.

Program area faculty members determine specific programmatic learning outcomes and review and revise them, as necessary, annually through the program review process. The outcomes are developed by program faculty and resource staff in collaboration with advisory committee members and documented on the annual planning document (A3). Program areas consider industry standards, requirements of external accreditation bodies or state and federal regulating agencies to develop relevant program outcomes. Program areas set goals for their learning outcomes, measure them on their annual planning documents, and use those metrics and past performance to guide improvement action plans (Accreditation Core Component 4B1).

With respect to occupational programs, outcomes reflect standards and assessment methods that assess the knowledge, skills, and abilities that program completers should possess, including if relevant, the general education outcomes.

Liberal studies programs at minimum assess transferability of courses to transfer institutions, support of occupational program outcomes, support and achievement of the college-wide general education outcomes, and any other specific programmatic outcomes deemed significant for students by faculty in those areas.

Program-level Assessment Process Methodology

NMC's annual program review process is the way in which we ensure that our programs and courses are up to date and effective (Accreditation Core Component 4A1). Informed by Lean Manufacturing principles, the premise of the program review is an annual evaluation of quantitative metrics and qualitative reflection on the prior year's activities. From this, goals for the program are set and action plans identified for the coming year. The justification and analysis that led to the goal determination is also documented in the program review documents. The program review documents and institutional-level metrics are made available to the college community on the [ORPE employee site](#).

The metrics tracked in program review are categorized in four phases of evaluation: Learner Perception & Behavior, Learning on Program Outcomes, Skill Transfer, and Results (Figure 2.1) (Kirkpatrick, 1994). At each level in this framework, program areas track specific metrics (Table 2.1).

Figure 2.1. Outcome Framework for Academic Program Review

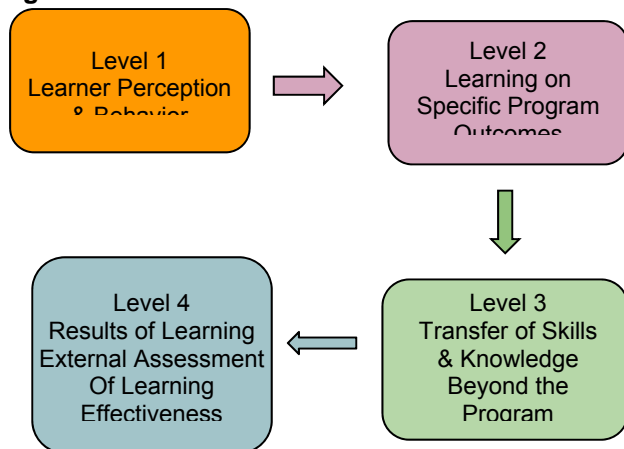


Figure 2.2. Program Learning Outcomes Process Map

Table 2.1 Metrics for Program Review

	Year End Program Enrollment
	Learner Assessment of Quality of Course Instruction
	Learner Assessment of Quality of Course
	Learner Program Satisfaction (Scale 1-4)
	Non-Traditional Participation (Perkins 5P1)
	College Level Course Completion Rate
	Developmental Course Completion
	College Level Enrollee Success Rate
	Developmental Enrollee Success Rate
	College Level Completer Success Rate
	Developmental Completer Success Rate
	Graduate Rate (Perkins 2P1)
	Student Retention or Transfer (Perkins 3P1)
	Non-Traditional Completion (Perkins 5P2)
Program	Each program has 3-5 outcomes
	Technical Skill Attainment (Perkins 1P1)
	Student Placement (Perkins 4P1)

	Transfer of general education skills in occupational programs
	Course Transferability: Group 1 Courses
Level 4: Results	Advisory Group Assessment of Student attitude, technical, and academic skills (Index Scale 1-5)
Course Efficiency	Seats Taken/Seats Available

Level 1, Learner Perception

Level 1, Learner Perception, measures enrollment, student course satisfaction, student program satisfaction, and for occupational programs leading to an Associate of Applied Science, one of the Perkins core indicators related to enrollment in programs considered nontraditional for the learners' gender (5P1). Perceptions of quality on the course and instruction are gathered on course evaluations, at least once per year. Perceptions of quality in the program are gathered by an emailed survey administered by ORPE in the fall annually to concentrators in career and technical education (CTE). Concentrators are defined as learners with 12 or more college level credits in a defined CTE program.

Level 2, Learning and Learning Outcomes

Level 2, Learning and Learning Outcomes, measures how well learners are achieving in the courses and whether they are accomplishing the defined program learning outcomes for the program. For all program areas, course completion and success rates are measured in these ways:

- Course completion rate = (all grades less withdrawals)/all grades
- Enrollee success = (grades of 2.0 and above)/all grades
- Completer success = (grades of 2.0 and above)/(all grades less withdrawals)

For the occupational programs leading to an Associate of Applied Science, institutional measures at Level 2 also include three of the Perkins Core Indicators: 1) graduation rate of CTE concentrators who left postsecondary education (2P1), 2) retention in postsecondary education or transfer rate of CTE concentrators who did not receive an award (3P1), and 3) completion in non-traditional programs for the learners' gender (5P2).

In addition, all programs have specific programmatic learning outcomes. Program faculty define outcomes and may use the ORPE to help establish assessment methods. Several programs, such as Nursing, map courses to programmatic outcomes. The process of curriculum mapping could be more pervasive and consistent throughout the curriculum. The

liberal studies areas document support and achievement of the general education outcomes in this area. All Group 1 courses in NMC's curriculum are required to support at least one of the general education outcomes. Program areas can map courses that support the general education outcomes in their areas where assessment results can be aggregated, and faculty have dialogues about how better to facilitate achievement of the general education outcomes.

Level 3, Transfer of Skills and Knowledge

Level 3 in the evaluation framework measures whether a learner can transfer the knowledge, skills, and abilities learned in the program to the next level, whether to the transfer institution or to a job. For occupational programs, two Perkins Core Indicators measure the ability to transfer skills: 1) technical skill attainment (1P1) is achievement of certification or licensure by learners on a third-party assessment, such as the NCLEX exam for Nursing, 2) student placement (4P1) is the job placement rate or continued post-secondary enrollment of CTE concentrators that may or may not have earned an award at NMC.

For the liberal studies programs, program managers ensure course transferability to transfer institutions. Each year, the academic chair or designee checks transferability and new course proposals lay out transferability information as well. When issues arise, the Registrar's Office contacts the gaining institution to work through course transfer issues. Transfer Guides online or through the NMC Advising Office are available to learners. Each academic area office has their specific area course syllabi on file.

Level 4, Results of Learning by External Assessment

Level 4 of the evaluation framework measures the results of learners' training by gathering feedback from gaining institutions. For occupational programs, advisory group feedback is critical to ensuring programs are up to date and effective. Advisory group feedback is captured by face to face paper survey once annually. ORPE compiles the results and distributes them to the program areas. The metric on the program review document regarding advisory group assessment is a specific index of three questions. The questions ask advisory group members to rate the technical job skills, basic academic skills, and work attitude of program participants as employees, as excellent, above average, average, below average or poor. A final fourth question asks advisory group members to rate their level of satisfaction with learners' performance overall.

There is not a corresponding institutional metric for liberal studies programs in level 4 of the framework. As NMC begins to use the data and information available in the MISchool database, we will be able to track transfer students to gaining institutions in order to assess performance at the transfer institution. Currently, an indirect measure of how well NMC prepared learners for their programs at transfer institutions is gathered by self-report on the Transfer Follow-Up Survey administered by phone by the ORPE. There are too few responses to be disaggregated by program to be useful at that level.

All program areas pay close attention to efficiency rates for their courses which offers an assessment of scheduling performance and provides information for faculty loads. Finally, NMC uses a "Cost to Educate" model, to measure financial performance for both occupational and

liberal studies programs. The data are collected and distributed by the Business Office and displayed on NMC's Digital Dashboard. The information has been used to make decisions regarding programs, such as to institute differential tuition.

Program areas create action plans to address areas for improvement identified in a review of metrics, assessment results for student learning outcomes, and through reflections and dialogue, and then document those actions as part of the institutional annual planning and budgeting process on the areas' A3 (Accreditation Core Component 4A6).

Course Learning Outcomes and Assessment

Course level learning is the foundation of NMC's curriculum. It is the place where learners and faculty members interact, share knowledge, and practice and apply skills. The cycle for continuous improvement within the course is short and follows the plan, do, check, adjust framework. Faculty members are continuously assessing student performance on activities, the effectiveness of their teaching pedagogies, and achievement of learning outcomes.

Course-level Assessment Process Methodology

At the course level, faculty members:

- Identify learning outcomes
- Develop assessments/assignments to assess student achievement of the learning outcomes
- Use the results of assessment to revise learning strategies, curriculum, and teaching pedagogies
- Share and document assessment results and actions for improvement

Making learning expectations clear: Course Outline and Syllabus

NMC's Course Outline is the Master Record for a course. It is reviewed on an annual basis and revised, as necessary, by faculty members. Once reviewed, academic area office managers upload the course outline to a central repository folder on the shared drive. Desired changes to the course information in the NMC Course Catalog must be documented on the Course Outline form so that all information about a course is consistent. The Curriculum Committee oversees the process and requested content of the course outlines. The forms along with instructions are available under the Curriculum Committee section of the shared drive. Resources are also available to faculty members on the Teaching@NMC website.

Every course will have between 6 to 10 learning outcomes. As a guideline, for each course credit a course might have 2-3 learning outcomes. Learning outcomes are identified in one of six categories: Knowledge, Application, Integration, Human Dimension, Caring, and Learning to Learn. These categories of learning outcomes were adapted from the work of Fink (2003). Instructions for the course outline provide guidance for identifying and locating learning outcomes within the six categories. Faculty are required to have learning outcomes in each category with the understanding that each outcome has an identifiable assessment. Evidence

of support for the general education outcomes must be annotated as a course learning outcome. Outcome statements typically start with “Students will...,” followed by an action verb.

Courses that support a general education outcome must provide evidence of that support in the course learning outcomes. The general education outcomes are extremely broad and are designed to be supported across the curriculum. They express very general skills students are expected to have after taking their courses. The outcome identified for the course can be specific to the course content and more specific to how students are expected to use the skill in the course. Course outcomes that align with a general education outcome are recognized with the name of the general education outcome in parentheses immediately after the outcome statement.

Moreover, the syllabus for the course lists the course outcomes and the supported general education outcomes, and shows the assessments that are linked to measuring achievement on the outcomes. Individual faculty members design learning activities and assessments for student learning at the course level in academic classes. Making the learning outcomes prominent on the syllabus allows students to clearly see faculty expectations and the learning for which they will be held accountable.

Course-level Assessments

Course learning outcomes are assessed in numerous ways. Faculty members use methods and standards as established by the academic areas. Summative assessments evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark. Summative assessments are often high stakes, and can carry a high point value for grading (i.e., midterm exam, a final capstone project, a research paper, a recital, etc.).

Formative assessments monitor student learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. More specifically, formative assessments can help students identify strengths and weaknesses and target areas that need work. They help faculty recognize where students are struggling and address problems immediately. Formative assessments are generally low stakes, which means that they can have lower or no point value for the grade. Examples of formative assessments include asking students to draw a concept map in class to represent understanding of a topic, submitting one or two sentences identifying the main point of a lecture, turning in a research proposal for early feedback. Both summative and formative assessments are used to measure achievement of course learning outcomes.

Support for faculty members in writing learning outcomes and linking assessments to outcomes exists within academic areas, on Teaching@NMC, through the Instructional Design office in Educational Media Technologies, and through the Assessment Coordinator in ORPE.

Documenting Results and Action Steps for Improvement

As part of the Faculty Annual Plan, faculty members reflect on student learning for their course outcomes. They provide specific documentation in on the Faculty Annual Plan under “Helping Students Learn.”

For course level results on outcomes linked to the general education outcomes, faculty members record those results and their action steps for improvement. Eventually, tracking results in a digital database will help NMC to aggregate the course-level results for the general education outcomes in order to provide a broader picture of learning at college.