



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

- 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

Working alongside the Assessment Coordinator and Curriculum Committee, ORPE is responsible for designing valid and reliable assessment methodologies that provide actionable

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.

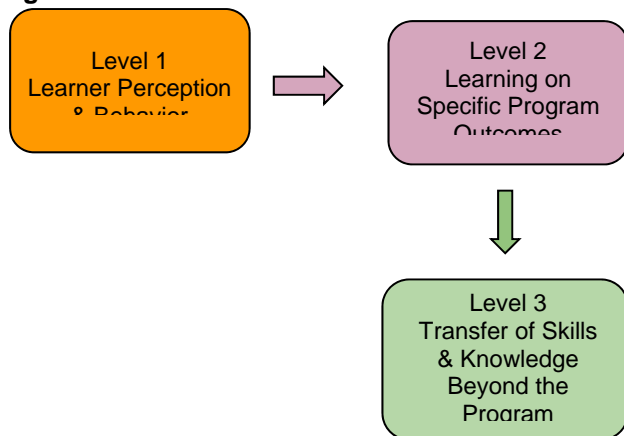
Liberal studies programs at minimum assess transferability of courses to transfer institutions, support of occupational program outcomes, support and achievement of the college-wide general education outcomes, and any other specific programmatic outcomes deemed significant for students by faculty in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

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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

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 addre

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.