



ESTABLISHING TIMELINES AND RESPONSIBILITIES

In program assessment planning, processes should be established that a) capitalize on what is already being done and b) complement the work of the faculty. Decisions will need to be made; just as faculty cannot teach the universe of all concepts and skills related to a single course, programs cannot assess everything that they believe students should know or be able to do by the time of graduation. As decisions are made and as assessment and evaluation processes are developed, planning should support the continuous improvement process.

The timeline illustrated in Table 1 demonstrates a three-year cycle where each outcome is assessed every three years. Because there are only six outcomes in this example, this means that data collection process takes place on two outcomes per year. The result at the end of six years is two complete cycles of data collection.

Student Outcomes (Each with measurable performance indicators)	Cycle 1			Cycle 2		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
A recognition of ethical and professional responsibilities	●			●		
An understanding of how contemporary issues shape and are shaped by mathematics, science and engineering		●			●	
An ability to recognize the role of professionals in the global society			●			●
An understanding of diverse cultural and humanistic traditions	●			●		
An ability to work effectively in teams		●			●	
An ability to communicate effectively in oral, written, graphical and visual forms			●			●

Table 1. Data collection cycle for six learning outcomes — two cycles every six years.

Table 2 demonstrates a two-year cycle which may be more common for two-year programs.

Student Outcomes (Each with measurable performance indicators)	Cycle 1		Cycle 2		Cycle 3	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Analyze complex computing problems	●		●		●	
Work effectively on a team		●		●		●
Communicate effectively in writing			●		●	
Design, implement and evaluate a computing-based solution	●		●		●	
Recognize professional responsibilities and make informed judgments		●		●		●

Table 2. Data collection cycle for five learning outcomes — three cycles every six years.

Decisions regarding assessment cycles such as those in Tables 1 and 2 need to be thoughtfully made to be consistent with the needs of the program and quality processes. For example, for programs that have a small number of students completing the program each year, the faculty could decide to have multiple data collection cycles before the data are analyzed for action to provide a larger “n.”

The tables above can be misleading in that during the year where data collection is taking place on some of the outcomes, complementary activities are taking place related to other outcomes. Tables 3 and 4 below represents an assessment and evaluation timeline for multiple processes for one outcome based on two and three cycles every six years (Tables 3 and 4 respectively).

Outcome: Recognize professional responsibilities and make informed judgments

Assessment and Evaluation Activity	Cycle 1		Cycle 2		Cycle 3	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1. Review of performance indicators that define the outcome	●			●		
2. Map educational strategies related to performance indicators		●			●	
3. Review mapping and identify where data will be collected		●			●	
4. Develop and/or review assessment methods used to assess performance indicators		●		●		
5. Collect data			●			●
6. Evaluate assessment data including processes				●		
7. Report findings				●		
8. Take action where necessary					●	

Table 3. Assessment and evaluation activity timeline for a single outcome — two cycles every six years.

Assessment and Evaluation Activity	Cycle 1		Cycle 2		Cycle 3	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1. Review of performance indicators that define the outcome	●			●		●
2. Map educational strategies related to performance indicators	●				●	
3. Review mapping and identify where data will be collected	●				●	
4. Develop and/or review assessment methods used to assess performance indicators	●			●		●
5. Collect data		●	●		●	
6. Evaluate assessment data including processes		●		●		●
7. Report findings		●		●		●
8. Take action where necessary			●		●	

Table 4. Assessment and evaluation activities timeline for a single outcome — three cycles every six years.

Given that these activities are necessary for all outcomes, this appears to require considerable effort. However, not all assessment activities need to be done by the same person or group. Table 5 demonstrates that multiple parties may be involved in the assessment and evaluation cycles. It is important to plan strategically and systematically so that the workload is reasonable, sustainable and appropriately distributed.

Assessment and Evaluation Activity	Responsibility for Activity
Review of performance indicators that define the outcome	Faculty Assessment Team
Map educational strategies related to performance indicators	All Faculty
Review mapping and identify where data will be collected	Program Faculty
Develop and/or review assessment methods used to assess performance indicators	Faculty Assessment Team w/Assessment Resource
Collect and analyze data	Faculty Assessment Team w/Assessment Resource
Evaluate assessment data including processes	Program Faculty
Report findings	Program Faculty
Take action where necessary	Program Faculty

Table 5. Parties responsible for the assessment and evaluation processes.

These tables are for illustrative purposes only. To close the loop on the assessment and evaluation process, it is important to plan with the end in mind. Creating a multi-year timeline will help to shape thinking about the activities and responsibilities involved in program assessment. It will also help to avoid taking on too much in the beginning and encourage systematic planning over time.

Creating these types of tables should only be tools to assist in administering and communicating the process. If at any time it is found that the processes need to be altered, the information in the tables should change. For example, it may be found after multiple data collection and analysis processes that one or more of the outcomes are consistently of high quality whereas there are other outcomes where the program cannot demonstrate adequate achievement. This could lead to more frequent data collection and evaluation process for some outcomes and less for others. The overall process needs to be designed to answer questions that are of interest to the program. "Systematic" does not mean "etched in stone." If you need to change your processes and/or cycles of activity, then it should be done.

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