
Implementing a Successful Assurance of Learning Process for a Graduate Management Information Systems Program

David T. Green
dgreen@govst.edu
Division of Accounting, Economics, Finance, & MIS,
Governors State University, University Park, IL 60484, USA

Abstract

This paper presents an example of an assurance of learning plan for a graduate program in management information systems along with tips for implementing the plan.

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1. INTRODUCTION

Assurance of Learning remains a top challenge for business schools seeking to achieve or maintain business accreditation with the Association to Advance Collegiate Schools of Business (AACSB) (Farmer & Abdelsamad, 2014). The Assurance of Learning Standards [i.e., 2003 Standards 15-21; 2013 Standards 8-12] are challenging because programs must show a level of maturity in processes, use of direct assessments demonstrating "closing the loop."

This paper provides an example of an assurance of learning plan for a graduate degree program in management information systems. Several tips and examples are provided that may be used for other information systems or business programs based on AACSB's Assurance of Learning model.

2. ASSURANCE OF LEARNING PROCESS

According to the 2013 AACSB Accreditation Standards, "*The school uses well-documented, systematic processes for determining and revising degree program learning goals; designing, delivering, and improving degree program curricula to achieve learning goals; and*

demonstrating that degree program learning goals have been met" (AACSB Standard 8 - Curricula Management and Assurance of Learning).

In addition "Curriculum content is appropriate to general expectations for the degree program type and learning goals" (Standard 9 - Curriculum Content).

AACSB describes the Outcomes Assessment Process (AACSB, 2013a) as including the following five steps:

1. *Definition of student learning goals and objectives*
2. *Alignment of curricula with the adopted goals*
3. *Identification of instruments and measures to assess learning*
4. *Collection, analyzing, and dissemination of assessment information*
5. *Using assessment information for continuous improvement including documentation that the assessment process is being carried out in a systematic, ongoing basis.*

The next section reviews the five steps along with some tips and examples for each step.

1. Definition of student learning goals and objectives

A degree program should have between 4-8 learning goals. Program Learning Goals are things students will *be/have* upon completion of the program. For programs new to the AOL process, they should begin with 4 goals at most and “park” the other goals until a certain level of process maturity has been reached.

Programs should also identify at least one learning objective for each learning goal. Learning Objectives are things students will *do/make*.

It is important to gain stakeholder input and approval on program learning goals and objectives while keeping in mind that the number of goals and objectives should be reasonable since every object must be measured on a regular basis. It is important to begin with fewer goals rather than needing to reduce/prune them later on.

Example (A) - Program Learning Goal/Objective(s)

1. Goal: Have well-integrated knowledge of information systems and technology in organizations
 - 1a. Objective: Demonstrate an understanding of processes that support the delivery and management of information systems within business application environment
 - 1b. Objective: Demonstrate knowledge of data management
 - 1c. Objective: Demonstrate knowledge of networking and data communications
 - 1d. Objective: Demonstrate knowledge of systems analysis and design
 - 1e. Objective: Demonstrate knowledge of information security and risk management
 - 1f. Objective: Demonstrate knowledge of business process management and enterprise systems

Example (B) - Program Learning Goal/Objective(s)

1. Goal: Be effective communicators in all relevant business media
 - 1a. Objective: Create documentation for an information systems applied or research project
 - 1b. Objective: Deliver an effective presentation of an information systems project

2. Alignment of curricula with the adopted goals

Upon identification and approval of program learning goals and objectives, programs should identify how the current curriculum is aligned with the program learning.

A useful exercise involves mapping the course level outcomes with program level outcomes. One style of curriculum map identifies where the goal/objective has been introduced, reinforced, and mastered. If there are deficiencies, the curriculum or specific courses should be modified to meet the outcomes. See Appendix 1 for an example curriculum map.

3. Identification of instruments and measures to assess learning

Instruments or measures are the way program level student learning goals/objectives are assessed.

Assessment measures/instruments may be direct or indirect. Although indirect assessments such as satisfaction, alumni, or employer surveys may be used, at least one direct assessment must be taken for each learning objective.

Assessments may be at a variety of points throughout the curriculum. All assessments do not need to occur at the end of the program. A direct assessment measure or instrument may either be categorized as (1) selection, (2) course-embedded measure, or (3) stand-alone testing or performance.

Selection assessments for graduate programs may be writing samples that are part of the admissions process to assess written communication. Course embedded student artifacts and stand-alone tests must also be considered (e.g., student papers, exam questions, standardized exams, capstone simulation performance, etc.).

An assessment target should also be determined. This is often a challenging part of the process.

Assessments may be either formative, results may used to improve student learning, or summative, results measured but are not used to improve future learning.

Example - Assessment Measures & Targets

AAC&U Rubric for Oral Communication used to assess presentations in the business communications course.

- 80% of students will reach the rubric 'benchmark' - 3/4.

Information Systems Analyst (ISA) Exam in the Information Systems Capstone Course

- 70% of Students will be in the 50th percentile.

See Appendix 2 for a table including an example program learning goals, objectives, course(s) where assessed, assessment instrument/measure, and performance target.

4. Collection, analyzing, and dissemination of assessment information

Collecting assessment data should be well planned and sustainable. AACSB currently views the instructor as the sole-assessor to be an acceptable practice. Ideally, faculty or other stakeholders may be involved in assessment.

Although there is not a specific sampling number required, a rule of thumb often distributed in the AACSB Assessment workshops is that assessment data should be collected and analyzed for at least 20-25% of the students in a program or graduating class for a specific learning goal/objective.

Data analysis has its limits with regards to assessment. Assigning performance targets ahead of time helps make the data analysis more valuable. Much of what is learned happens through the simple act of the assessment process and not necessarily due to the results of some data analysis. Even with effective rubric norming practices, there will be variation in assessors' application of rubrics to the same assignment.

Department chairs or assessment/program coordinators should write up the assessment results in an annual report to be disseminated to the faculty and other key stakeholders.

5. Using assessment information for continuous improvement including documentation that the assessment process is being carried out in a systematic, ongoing basis.

Process/Structure

This section includes some tips for creating or sustaining a systematic and sustainable assurance of learning process. It is important to create the organizational structure to support effective curriculum management and assurance of learning.

Assign faculty members and staff leaders to coordinate assessment activities and identify professional development needs and opportunities. If there are no resources for administrative staff to assist, provide release time or stipends to faculty to perform administrative tasks.

Assign Course Leaders/Course Coordinators, especially for core courses with multiple sections offered per year.

Create faculty program coordinators to oversee curriculum and assurance of learning activities. Require program coordinators to submit annual assessment/Assurance of Learning reports at the end of each academic year.

Professional Development

Professional development opportunities are vital for faculty members, staff leaders, administrators and others leading and participating in assurance of learning activities.

An on-campus assessment workshop for faculty led by an expert on assurance of learning is a great place to start, introducing to the language and concepts of assurance of learning.

Send faculty to conferences, seminars, and workshops such as:

- AACSB Assessment Conference (annual)
- AACSB Assessment and Applied Assessment Seminars (offered multiple times per year)
- AAC&U General Education & Assessment Conference (annual)
- Information Systems Educators Conference (ISECON) (annual)
- Regional Accreditation Organizations (e.g., Higher Learning Commission, Southern Association of Colleges and Schools) (annual)

4. CONCLUSIONS

Achieving a mature assurance of learning process that is systematic and sustainable is a challenging organizational change project. In addition to implementing the steps discussed in this paper, a successful AOL process requires administrative support, faculty professional development funding, course release opportunities for faculty leaders, and dedicated time in meetings that allow faculty members to participate in the Assurance of Learning process. Finally, it is very important to raise special

recognition to the efforts of faculty and staff members involved in AOL activities.

5. REFERENCES

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Appendix 1 Program Course & Objectives Matrix

Course	Program Learning Goals/Objectives									
	1a	1b	1c	1d	1e	1f	2a	2b	3a	4a
<i>Written Communication Course</i>							I			
<i>Programming Course</i>				I						
<i>Statistics Course (MGMT 6700 or STAT 2700 and STAT 3700)</i>	I									
<i>Applied Calculus (MATH 2281)</i>	I									
<i>MIS Competency exam with a score of 80 or higher (prior to second semester)</i>	I	I	I							
<i>Management Course (MGMT 6100 or MGMT 3100 and MKT 3100)</i>	I									I
<i>Accounting Course (ACCT 601 or ACCT 2110 and ACCT 2111 and FIN 3110)</i>	I									
<i>Organization Behavior Course (MGMT 4500)</i>	I									I
<i>Operations Management Course (MGMT 3400)</i>	I									
MIS 7101 Information Systems and Technology	R	I	I	I	I	I	R*	R	I*	I*
MIS 7201 Systems Analysis and Design	R			R		R	R	R		
MIS 7401 Database Development and Implementation		R		R				R*		
MIS 7700 ERP Systems	R					R				
MIS 7601 IT Infrastructure			R				R*			
MIS 6580 Information Security					R		R		R	
MIS 8979 Capstone Course	M*	M*	M*	M*	M*	M*	M	M	R	R

*Where Assessed

I-Introduced
 R-Reinforced
 M-Mastered

Appendix 2.
Example - Program Learning Goals, Learning Objectives, Assessment Measures/Instruments, & Performance Targets

Program Goals	Learning Objectives	Where Measured	Assess. Tool	Performance Target
MIS 1. Have a well-integrated knowledge of information systems in organization:	a. An understanding of processes that support the delivery and management of information systems within business application environment	MIS 8979 Capstone	Information Systems Analyst (ISA) IS2010 Exam	50 th Percentile
	a. Demonstrate knowledge of data management	MIS 8979 Capstone	ISA	50 th Percentile
	b. Demonstrate knowledge of networking and data communications	MIS 8979 Capstone	ISA	50 th Percentile
	c. Demonstrate knowledge of systems analysis and design	MIS 8979 Capstone	ISA	50 th Percentile
	d. Demonstrate knowledge of information security and risk management	MIS 8979 Capstone	ISA	50 th Percentile
	e. Demonstrate knowledge of business process management and enterprise systems	MIS 8979 Capstone	ISA	50 th Percentile
MIS 2. Be effective communicators in all relevant business media	a. Create documentation for an information systems applied or research project	MIS 7601 MIS 7101	Project / (AAC&U Writing Rubric)	80% of Students will reach 'Benchmark' (3/4)
	b. Deliver an effective oral presentation of an information systems project.	MIS 7401 MIS 8979 Capstone	Presentation / (Rubric)	80% of Students will reach 'Benchmark' (3/4)
MIS 3. Have a well-developed ethical perspective	a. Demonstrate ability to apply an ethical decision-making framework to a specific scenario.	MIS 7101	Case Scenario Assignment (Ethics Rubric)	80% of /Students will reach 'Benchmark' (3/4)
MIS 4. Have a well-developed cross-cultural Perspective.	a. Analyze the local and global impact of computing on individuals, organizations, and society	MIS 7101	Question Set / Essay Questions	80% of /Students will reach 'Benchmark' (3/4) 100% of students will correctly answer the objective questions.