Standard #4 Measurement, Analysis and Knowledge Management - Figure 4.1

Criterion 4.1. The business unit must have an outcomes assessment process for each program, correlated with initial assessment, measuring student achievement of stated learning goals in general education and in program areas. The process must be developed, deployed, and document how the business unit collects, analyzes, and uses performance data and information to enhance and improve academic programs and student learning

To demonstrate compliance with this criterion:

Definitions: A student

learning outcome is one that measures a specific competency attainment. Examples of a direct assessment (evidence) of student learning attainment that might be used include: capstone performance, third-party examination, faculty-designed examination, professional performance, licensure examination).

Direct - Assessing student performance by examining samples of student work

Indirect - Assessing indicators other than student work such as getting feedback from the student or other persons who may provide relevant information.

Formative – An assessment conducted during the student's education.

Summative – An assessment conducted at the end of the student's education.

Internal – An assessment instrument that was developed within the business unit.

External – An assessment instrument that was developed outside the business unit.

Comparative – Compare results between classes, between online and on ground classes, Between professors, between programs, between campuses, or compare to external results such as results from the U.S. Department of Education Research and Statistics, or results from a vendor providing comparable data.

			Figure 4.1								
		A	nalysis of Results								
Performance Measure	What is your measurement instrument or process?	Areas of Success	Analysis and Actions Taken	Results of Actions Taken /during the following year/	Insert Graphs or Tables of Resulting Trends (3-5 data points preferred)						
Competency	Do not use grades.	What are your current results?	What did you learn from the results?	What did you improve or what is your next step?							
What is your goal?	(Indicate type of instrument) direct, formative, internal, comparitive										
ACC-1. Average financial ratio calculation score equal to or greater than 70%.	Ratio portion of Capstone Accounting Exercise in ACC 2110 (Direct), (Summative), (Internal).	Exceeded the target each year, but the trend is downward for two years.	trend is r two years. decided to require a Ratio Exercise in ACC 2020. A Math prerequisite was added to ACC 2010. the scores to see if they respond to the changes made. Average Score 81 88 93 90 87 Average Analysis Scores in Capstone Exercise								
ACC-2. Average analysis score equal to or greater than 70%.	Analysis portion of Capstone Accounting Exercise in ACC- 2110 (Direct), (Summative), (Internal).	Exceeded the target each year, and the trend is now upwards.		After two years of decline the scores have now increased for two years.							

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ACC-3. Average score on ACC 2027 Tax Return equal to or greater than 70%.	Tax Return Exercise in ACC 2027. (Direct), (Formative), (Internal).	Exceeded the target each year, but the average dropped in Spring 2014	The business unit was staffing this course with part-time instructors who turned over often, leading to new instructors with little experience. An experienced instructor was assigned.	The scores recovered in Fall 2014, and now the experienced instructor is mentoring the new instructor coming in.	Average Tax Return Scores in ACC 2027 100 90 80 70 70 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 80 80 80 80 80 80 80 80 80 80 80 80
BAD-1. Average score on Company Profile equal to or greater than 70%.	Company Profile Project in ECN 1015 course. (Direct), (Formative), (Internal).	Exceeded the target each year, but the average dropped too close to the target percentage in Fall 2013.	Poor writing and organization skills were holding down scores for some students. Detailed exercise instructions with a scoring rubric were developed. An English prerequisite was added to ECN 1015.	The average score increased in Spring 2014, and the trend is now upwards.	Average Scores for Company Profile in ECN 1015 100 90 90 90 90 90 90 90 90 90 90 90 90 9
BAD-2. Average Ratio Analysis Exercise scores will be equal to or greater than 70%.	Ratio Analysis Exercise in ACC 2020 course. (Direct), (Formative), (Internal).	Exceeded the target each year, but the scores fell for two years before leveling off at 85%.	Even with a Math prerequisite for ACC 2010 some students struggle with ratios when they reach ACC 2020. Instructors in ACC 2010 have been asked to include ratio exercises in that course.	The business unit will monitor the scores to see if they respond to the changes made.	Average Ratio Exercise Scores in ACC 2020 Course 100 80 40 20 40 20 SP13 FL13 SP14 FL14 SP15 Average Score 91 93 90 85 85 Target 70 70 70 70 70 70
BAD-3. Average Term Paper scores will be equal to or greater than 70%.	Term Papers assigned in ECN 2025 course. (Direct), (Formative), (Internal).	Exceeded the target score in 3 of 5 semesters.	Initial success was followed by a sharp drop in scores as less prepared students came into the program. English prerequisite is now in place for ECN 1015, and instructors have adopted the English dept. rubric.	Scores have increased in the last two semesters. The business unit will continue to monitor scores.	Average Scores for Term Paper in ECN 2025 76 74 77 78 88 88 86 66 64 FL12 SP 13 FL13 SP 14 FL14 Average Score 75 75 68 70 71 Target 70 70 70 70 70 70

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BAD-TECH-1. Average scores for the capstone exercise will be equal to or greater thn 70%.	Capstone Exercise assigned in BAD 1335. (Direct), (Formative), (Internal).	Exceeded the target score in all years.	Students coming into the program recently have been much more computer literate than in the past.	The business unit will continue to monitor scores.	Average Scores for Capstone Exercise in BAD 1335 100 90 80 80 80 80 80 80 80 80 80 80 80 80 80
BAD-TECH-2. Average Ratio Analysis Exercise scores will be equal to or greater than 70%.	Ratio Analysis Exercise in ACC 2020 course. (Direct), (Formative), (Internal).	Exceeded the target each semester, but the scores fell for two semesters before leveling off at 85%.	Even with a Math prerequisite for ACC 2010 some students struggle with ratios when they reach ACC 2020. Instructors in ACC 2010 have been asked to include ratio exercises in that course.	The business unit will monitor the scores to see if they respond to the changes made.	Average Ratio Exercise Scores in ACC 2020 Course 100 100 80 40 40 20 V 40 20 SP13 FL13 SP14 FL14 SP15 Average Score 91 93 90 85 85 Arranget 70 70 70 70 70 70
BAD-TECH-3. Average Term Paper scores will be equal to or greater than 70%.	Term Papers assigned in ECN 2025 course. (Direct), (Formative), (Internal).	Exceeded the target score in 3 of 5 semesters.	Initial success was followed by a sharp drop in scores as less prepared students came into the program. English prerequisite is now in place for ECN 1015, and instructors have adopted the English dept. rubric.	Scores have increased in the last two semesters. The business unit will continue to monitor scores.	Average Scores for Term Paper in ECN 2025 76 74 77 70 68 68 66 64 FL12 SP 13 FL 13 SP 14 FL 14 Average Score 75 75 68 70 71 Target 70 70 70 70 70
MGT-1. Average score on Company Profile equal to or greater than 70%.	1015 course.	Exceeded the target each year, but the average dropped too close to the target percentage in Fall 2013.	Poor writing and organization skills were holding down scores for some students. Detailed exercise instructions with a scoring rubric were developed. An English prerequisite was added to ECN 1015.	The average score increased in Spring 2014, and the trend is now upwards.	Average Scores for Company Profile in ECN 1015 100 90 80 80 770 85 50 50 100 91 100 91 100 80 100 100 80 100 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 100 80 80 80 80 80 80 80 80 80 80 80 80 8

MGT-2. Average Quiz scores will be equal to or greater than 70%.	Online Quizzes assigned in ACC 2010 course. (Direct), (Formative), (Internal).	semester, but the average dropped too close to the	Accounting Program	Scores have increased in the last two semesters. The business unit will continue to monitor scores.	Average Online Quiz Scores in ACC 2010 82 80 78 80 78 80 78 74 80 74 80 70 70 68 66 64 8P13 FL13 SP14 FL14 SP15 Average Score 74 75 71 78 81 Target 70 70 70 70 70 70
MGT-3. Average Case Analysis scores will be equal to or greater than 70%	Management Case Studies assigned in BAD 1210. (Direct), (Formative), (Internal).	Exceeded the target in each semester.	The scores have been excellent for the cases, aided by the use of a detailed scoring rubric provided to the students at the start of the course.	The business unit will monitor the scores to see if they continue to be good.	Average Scores for Management Case Analysis in BAD 1210 100 90 80 80 70 70 90 50 50 40 20 100 0 SP 13 FL 13 SP 14 FL 14 SP 15 Average Score 91 91 90 90 93

Table 7 Organizational Performance Results

Organizational effectiveness results

Organizational effectiveness results examine attainment of organizational goals. Each business unit must have a systematic reporting mechanism for each business program that charts enrollment patterns, students retention, student academic success, and other characteristics reflecting student performance. Key indicators may include; improvement in safety, hiring equity, increased use of web -based technologies, use of facilities by community organizations, contributions to the community, partnerships, graduation and retention rates by program etc.

		Analysis of Results								
Performance Measure	mance Measure What is your measurement instrument or process?		Analysis of Results and Actions Taken	Results of Actions Taken /during the following year/	Insert Graphs or Tables of Resulting Trends (3-5 data points preferred)					
What is your goal? (Indicate direct, for comparing the comparing state of the comparing st	Do not use grades. (Indicate type of instrument) direct, formative, internal, comparitive	What are your current results?	What did you learn from the results?	What did you improve or what is your next step?						
	increase, but the enrollment Reports Direct) Summative) External Maryland Community	viewed as a percentage of Maryland Community College totals for Business	stepped up marketing efforts in the past year. More transfer	The Business unit has not seen the effect of the new college-wide efforts to increase enrollment yet. Enrollments should be monitored closely going forward	Enrollment In Business Programs 14000 12000 12000 12000 10000 2000 200					
1a. (enrollment details)	Annual Maryland Higher Education Commission Enrollment Reports (Direct) (Summative) (External) (Comparative)	The Business Admin Transfer program is the only one that had an increase (2012).	The Business Admin Transfer program is the program with the most transfer agreements. More will be sought for the other programs.	Each program should attempt to set up more transfer agreements and offer more non-traditional offerings.	Enrollment by Program 1400 1200 1200 1200 1200 1200 1200 120					
2. The CSM Retention Rate should be equal to or greater than the state-wide rate.	Annual Maryland Higher Education Commission - Retention, Graduation, and Transfer Report (Indirect) (Summative) (External) (Comparative)	CSM retention rates were lower than the state-wide rates.	Efforts to maintain enrollment goals have led to more students who are less prepared for college courses.	In 2012 CSM developed and deployed a Student Success and Goal Completion Plan	Two-Year Retention Rates 56 54 52 58 50 48 46 44 42 2010 2011 2012 2013 2014					

3. The number of graduates in each program should increase each year.	Annual Maryland Higher Education Commission Degree Reports (Direct) (Summative) (External) (Comparative)	After one year of decline the number of graduates has increased for three straight years.	CSM has implemented a Student Success and Goal Completion Plan and is attempting to help minorities close the acheivement gap.	The Business unit is continuing to increase their graduates while the program graduates statewide have declined.	Graduates From Business Programs 2000 1800 1800 1800 1800 1800 1800 180
3a. (graduate details)	Annual Maryland Higher Education Commission Degree Reports (Direct) (Summative) (External) (Comparative)	The Business Admin Transfer program has experienced increasing graduates for 3 straight years	Students appear to be more attracted to transfer programs vs. career programs, perhaps because of an influx of younger students.	The career programs need to seek more transfer agreements to attract more of the younger students seeking transfer.	Graduates by Program 200 180 180 140 120 120 120 120 120 120 120 120 120 12
4. At least 70% of the graduates will rate their preparation for transfer as Excellent or Good.	Triennial Maryland Higher Education Commission - Graduate Follow-up Survey - Question 10 (Indirect) (Summative) (External) (Comparative)	The Percentage exceeded 70% in all years	The Business unit did better than the CSM and Maryland percentages, but the latest survey is not broken down by program.	The Business unit should seek program level data, and should consider doing their own survey more frequently than MHEC.	Grads Rating of Transfer Preparation 120 100 100 100 100 100 100 10
5. CSM transfer students will have an average GPA, one year after transfer, equal to or higher than the average GPA for all Maryland community colleges.	Annual Maryland Higher Education Commission - Performance of Maryland Community College Transfer Students Report (Indirect) (Summative) (External) (Comparative)	The most recent report shows CSM students having a higher GPA than the state-wide community college average.	The GPA had dropped for 2 years, but then recovered for 2 years. New outcomes assessment efforts have been instituted to improve student performance.	The business unit must continue to monitor the trend for continued success.	MHEC 1st-Year GPAs of CC Students at 4-Year Schools 2.90 2.85 2.85 2.75 2.75 2.75 2.55 2.50 2.55 2.50 2.50 2.55 2.50 2.50
6. At least 70% of the graduates will rate their preparation for employment as Excellent or Good.	Triennial Maryland Higher Education Commission - Graduate Follow-up Survey - Question 17 (Indirect) (Summative) (External) (Comparative)	The Percentage exceeded 70% in all years	The Business unit did better than the CSM percentages, and was below Maryland only once, but the latest survey is not broken down by program.	The Business unit should seek program level data, and should consider doing their own survey more frequently than MHEC.	Grads Rating of Employment Prep 120

7. Employers will rate CSM students job skills higher than 70%.	Annual COOP Employer Surveys (Indirect) (Formative) (External)	Ratings exceeded target in each year.	While employers gave 4.0 ratings for overall college preparation for employment, the 2 skills that were below 4.0 in 2011 were Computer skills and Writing skills.		Employer Ratings of Student Job Skills 4.5 4.0 9 4.0 9 5 3.5 10 2.5 10 2.5 10 2.5 10 2.0 10 2011 2012 2013 2014 Rating (4-Point Scale) 4.0 3.6 4.0 4.0 4.0 4.0 1.0 4.0 1.0 3.6 4.0 3.0 3.0 3.0 3.0 3.0
8. The percent of CSM students in Non-Traditional Courses will increase year-to-year.	Annual CSM Factbook (Indirect) (Formative) (External)	The percentage increased each year.	Online courses give students the ability to take courses even if they work full-time or live outside the CSM service area.	The Business unit has led the college in putting courses and degrees online.	Percent of Students in Non-Traditional Courses 25 20 15 0 2010 2011 2012 2013 2014 2014 2015 2019 2010 2010 2010 2010 2010 2010 2010
9. At least 50% of Non- Returning students will state that their goals were met before they left CSM.	Biennial CSM Non-Returning Student Survey Question 3 (Indirect) (Summative) (External)	The percentage exceeded 50% in all years.	The percentage is not consistent, and the trend is downward.	In 2012 CSM developed and deployed a Student Success and Goal Completion Plan	Non-Returning Who Met Goals 64 63 62 61 61 65 60 59 8 58 57 2005 2007 2009 2011 2013 63.4 60.4 62.9 59.4 61.3
10. At least 50% of Non- Returning students will state that they plan to return to CSM in the future.	Biennial CSM Non-Returning Student Survey Question 8 (Indirect) (Summative) (External)	The percentage exceeded 50% in all years.	Many students leave because they cannot afford to continue their education.	CSM has increased its financial aid in both number of awards and the average dollars awarded.	Non-Returning Who Plan to Return 61 60 55 55 2005 2007 2009 2011 2013
11. At least 70% of the graduates will rate their college experience as Excellent or Good.	Triennial Maryland Higher Education Commission - Graduate Follow-up Survey - Question 6 (Indirect) (Summative) (External) (Comparative)	The Percentage exceeded 70% in all years	The Business unit did better than the CSM and Maryland percentages, but the latest survey is not broken down by program.	The Business unit should seek program level data, and should consider doing their own survey more frequently than MHEC.	Grads Rating of College Experience 98 96 97 98 98 99 90 90 90 90 90 90 90

12. CSM Library database logins will increase year-to- year.	Annual CSM Factbook (Indirect) (Formative) (External)	Logins have increased every year, and the total has almost doubled.	Students perform better on papers when they are taught how to use, and cite outside sources.	Business unit faculty have developed scoring rubrics for papers which force students to properly use and cite sources.	100	140000 120000 1000000	atabase	Logins	Per Ye	ar	<i>^</i>
						0	2010	2011	2012	2013	2014
					-	Database Logins	71398	77897	87877	104126	130615