ASSESSMENT HANDBOOK

2019 Edition

time to

SHINE

Achieving the Next Level of Excellence

MINNESOTA STATE

Minnesota State Community and Technical College
is a member of the Minnesota State system

An Equal Opportunity Educator/Employer.
Un Educador/Empleador de oportunidad Igual.

Minnesota State
Community and Technical College

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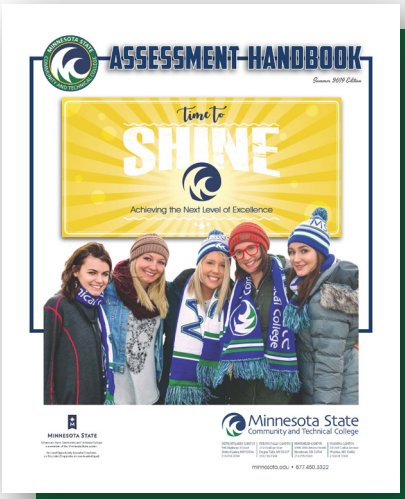
WHAT'S INSIDE



MISSION

Minnesota State Community and Technical College specializes in affordable and exceptional education, service, and workforce training. We welcome all students and engage them in shaping their futures and their communities.

VISION

A success story for every student.

VALUES

Integrity. Inclusion. Innovation.

PILLARS OF SUCCESS

We're ALL IN

I. STUDENT SUCCESS

Encompasses academic readiness for college, successful course completion, documented learning improvement, student persistence toward degree completion, graduation, placement, exam/certification/pass rates, transfer rates, co-curricular experiences and student awards and honors.

II. EQUITY AND INCLUSION

Encompasses operating as a vibrant inclusive body of diverse students and employees who challenge, inspire and support each other.

III. FINANCIAL SUSTAINABILITY

Encompasses the prudent management of the college's enrollment, fiscal, physical and technological resources, and the enhancement of external revenue sources.

HLC ASSESSMENT CRITERIA FOR ACCREDITATION

HIGHER LEARNING COMMISSION

M State is accredited by the Higher Learning Commission (HLC), a regional accreditation agency recognized by the U.S. Department of Education. The college participates in the Standard Pathway, which is a 10-year accreditation cycle focused on quality assurance and institutional improvement. The Criteria for Accreditation are the standards of quality by which HLC determines whether an institution merits accreditation or reaffirmation of accreditation.

Assessment-related Criteria for Accreditation

3.C. The institution has the faculty and staff needed for effective, high-quality programs and student services.

1. The institution has sufficient numbers and continuity of faculty members to carry out both the classroom and the non-classroom roles of faculty, including oversight of the curriculum and expectations for student performance; establishment of academic credentials for instructional staff; and involvement in assessment of student learning.

4.B. The institution demonstrates a commitment to educational achievement and improvement through ongoing assessment of student learning.

1. The institution has clearly stated goals for student learning and effective processes for assessment of student learning and achievement of learning goals.

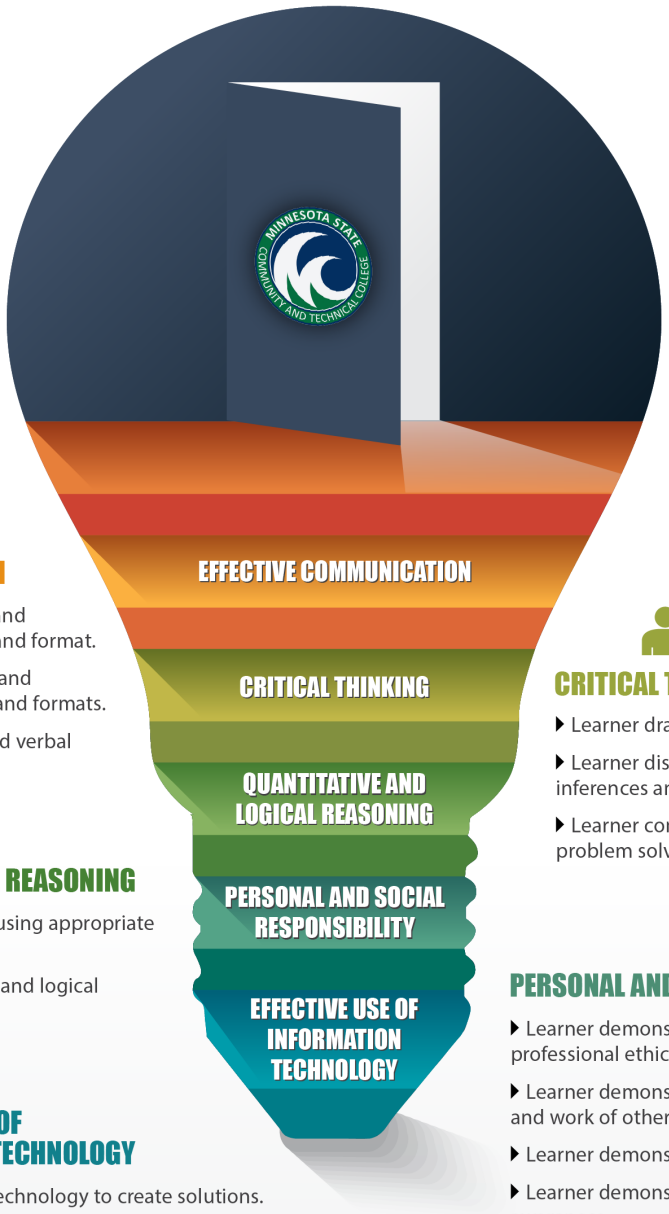
2. The institution assesses achievement of the learning outcomes that it claims for its curricular and co-curricular programs.

3. The institution uses the information gained from assessment to improve student learning.

4. The institution's processes and methodologies to assess student learning reflect good practice, including the substantial participation of faculty and other instructional staff members.

5.C. The institution engages in systematic and integrated planning.

2. The institution links its processes for assessment of student learning, evaluation of operations, planning and budgeting.



EFFECTIVE COMMUNICATION

- Learner writes clearly, concisely and accurately in appropriate context and format.
- Learner speaks clearly, concisely and accurately in a variety of contexts and formats.
- Learner comprehends written and verbal communication.

QUANTITATIVE AND LOGICAL REASONING

- Learner performs computations using appropriate methods.
- Learner demonstrates numerical and logical reasoning.

EFFECTIVE USE OF INFORMATION TECHNOLOGY

- Learner applies technology to create solutions.
- Learner uses technology to communicate.

CRITICAL THINKING

- Learner draws conclusions based on evidence.
- Learner distinguishes between facts, fallacies, inferences and judgments.
- Learner considers multiple perspectives in problem solving.

PERSONAL AND SOCIAL RESPONSIBILITY

- Learner demonstrates personal integrity and professional ethical practices.
- Learner demonstrates respect for the rights, views and work of others.
- Learner demonstrates personal accountability.
- Learner demonstrates multicultural and global awareness.
- Learner demonstrates the ability to work in a team.

M STATE
INSTITUTIONAL LEARNING OUTCOMES

M State's Institutional Learning Outcomes (ILOs) serve as the foundational learning goals for a rich educational experience that illuminates a path to success. The ILOs align with Minnesota Transfer Curriculum and the college's mission, vision and values statements.

EXECUTIVE SUMMARY OF ASSESSMENT

Assessment of Student Learning - What is it?

✓ Systematic process in which program faculty and/or professionals articulate the intended results of the cumulative contribution of their program

✓ Articulates what the program intends to accomplish

✓ Purposeful plan so the intended results can be achieved; implement methods to systematically, over time, identify whether the end results have been achieved; and the use of results to plan improvements

✓ Process of evaluation which is repeated at a later date to determine whether the program improvements contribute to the intended outcomes

Source: Bresciani, Marilee. Outcomes Based Academic and Co-Curricular Program Review. Stylus Publishing, 2006.

Assessment of Student Learning - Why do we do it?

✓ Be the leading community and technical college in the region, state and nation by using assessment to improve student learning, inform decision-making and fulfill the college's mission

✓ Improve student learning and engagement
- Evaluate and ensure students are learning what we think we are teaching
- Improve students' knowledge, skills and abilities in an increasingly complex educational and work environment
- Align course activities and materials with course competencies, program outcomes and institutional learning outcomes
- Assess whether changes made in the classroom are effective

✓ Foster a culture of excellence
- M State is committed to a culture of excellence, encompassing teamwork and individual action, opportunities for professional growth, community leadership and the recognition of continuous improvement and notable achievement through excellence in teaching, service to education and service to the college.

✓ Compliance
- Accountability and quality assurance
- Students are becoming more engaged and involved in compliance issues

Timeline

FY2019
- Define outcomes
- Create assessment plans for every program (fall 2018)
- Collect student learning outcome data (due May 1, 2019)
- Develop action plans for 2019-2020 (due Aug. 31, 2019)

FY2020
- Implement action plans
- Collect second round of data
- Evaluate effectiveness of action plans (by the end of spring 2020)

June 1, 2020
- Assessment of Student Learning Report due to HLC

ASSESSMENT OF STUDENT LEARNING CYCLE

	Annual	Every 3rd Year
Program Outcome Assessment (Annual Assessment Plan and Reporting Framework Worksheet for Programs and General Education)	✓	
Institutional Learning Outcome Assessment	✓	
Comprehensive Program Review		✓
Co-curricular Assessment	✓	

Annual Assessment Process

The program/discipline assessment plan is updated annually by faculty and reviewed by discipline faculty and select reviewers. Plans include a listing of the program/discipline outcomes, how the outcomes are assessed, measures of success, direct and indirect measures, assessment results, action plans and an annual assessment narrative. Assessment plans are also incorporated into the three-year comprehensive program review process.

Institutional Learning Outcome (ILO) Assessment (formerly Core Ability Assessment)

The institutional effectiveness office produces reports for each of the outcomes, using the mapping of program, discipline or co-curricular learning outcomes each institutional learning outcome (ILO). Results are reviewed with the Institutional Effectiveness Council, and recommendations on policies, procedures and processes are made to the President's Cabinet for incorporation into continuous improvement and planning initiatives.

Comprehensive Program Review

Comprehensive review is a three-year process. During the year of the comprehensive program review, a committee of faculty, staff and administrators examine an academic program's successes and challenges. The specific action items that result are incorporated into the annual assessment process.

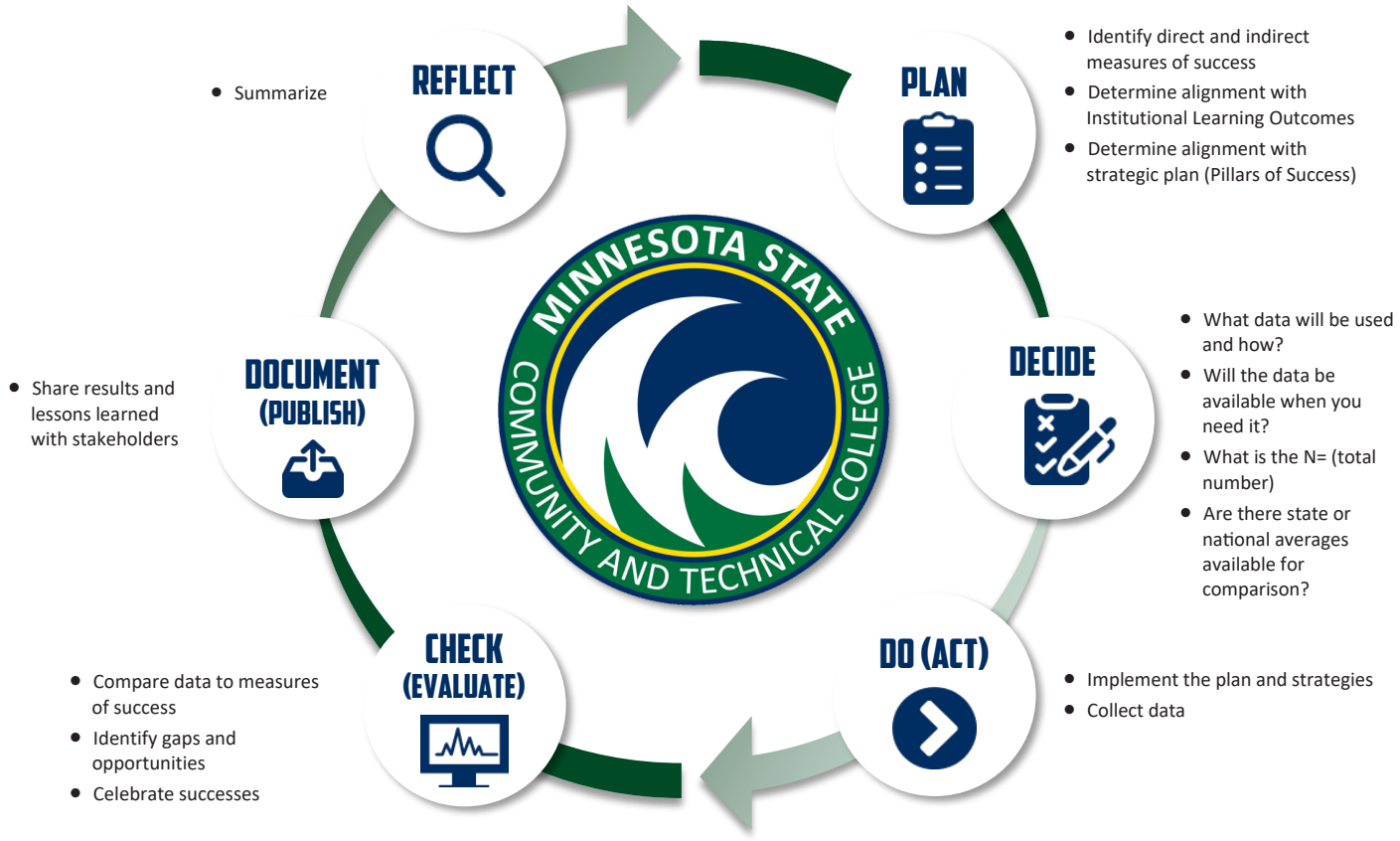
Co-Curricular Assessment

Co-curricular programs intentionally extend learning beyond the classroom. Aligned with ILOs and the M State Pillars of Success, these activities enrich the student experience. Like academic programs, co-curricular programs use assessment to provide effective and exceptional educational opportunities.

Other Assessment Resources

- AAC&U Value Rubrics
- Collegial networking, sharing of ideas and assessment plans
- Employee Portal > Files and Forms > Assessment of Student Learning
- Institutional Effectiveness Council
- Institutional effectiveness office
- MSCTC-M State Assessment and MSCTC-Co-Curricular Assessment SharePoint sites
- Professional development days/duty days
- Program review schedule, forms and checklists

ASSESSMENT OF STUDENT LEARNING CYCLE



Assessment *should*:

✓ Improve student success

✓ Encourage curiosity

✓ Result in data-informed actions toward improvement

✓ Be small steps to do better

✓ Strengthen institutional performance

✓ Celebrate strengths

Assessment is *not*:

- Just about collecting *more* data

- About perfection in models or results

- An evaluation

Icons by various Flaticon authors

ANNUAL ASSESSMENT PLAN AND REPORTING FRAMEWORK

The annual assessment plan requires all programs, including general education disciplines, to identify:

- ✓ Alignment to ILOs
- ✓ Learning outcomes
- ✓ Methods of assessing student learning of the outcomes (both direct and indirect)
- ✓ Identify measures of success and if students achieved the measures of success in the assessed term

The assessment results form the basis for developing plans for student learning improvement. When students are not meeting expectations, faculty create action plans and assess the effectiveness of the action plans. Discipline faculty and select reviewers provide input on the assessment plans and results on an annual basis to ensure data is being utilize to inform strategies for improving student learning, resource allocation and institutional planning.

Direct measures are specific and developed by program faculty. All program/discipline outcomes are assessed at least once during a three-year period. Examples of direct assessment include evaluation of student projects or papers by a rubric, as well as embedded exam questions. It is important that direct measures of student learning:

- Demonstrate that specific learning has taken place
- Involve the rating of student work
- Target specific learning outcomes

Indirect measures imply that learning has taken place rather than assessing student work.

Examples of indirect assessment include:

- Retention rate (Criterion for Accreditation 4.C.1.)
- Graduation rate (Criterion for Accreditation 4.C.1.)
- Related employment rate
- Transfer/continuing education rate
- Enrollment
- Course grades
- Based on programmatic accreditation, other possibilities include metrics that are already being tracked such as:
  - Specific items on course evaluations
  - Student self-evaluations
  - Surveys, questionnaires, focus groups (graduate satisfaction, employer satisfaction)
  - Credentialing exam pass rate

Every three years, the assessment plans are consolidated into a program review. During the program review process, faculty reflect and share the student learning results and performance on indirect measures. Faculty review their assessment plans and update both the methods of assessment and standards of success with the help of faculty, administrators and staff on their review committee.

Census

Assessing the full student population is considered a census. If reasonable, this is the preferred method for assessing student learning. Small programs or disciplines often can assess student learning of the entire population.

Inter-rater Reliability

Contact the institutional research office for assistance and resources regarding inter-rater reliability.

Sampling

Assessing the full student population is not always practical. Sampling student artifacts is appropriate when the population of a program/discipline is large or when artifacts require substantial time to review. If sampling student artifacts, it is important to determine both sampling method and the sample size.

Sampling Methods

There are several different ways to select a sample from a full population. Ideally, the sample is a subgroup that is representative of the overall population.

Simple Random Sample

A random sample is a random selection of student artifacts. This method is implemented using a random number generator that selects the students.

Stratified Random Sample

The population is divided into subcategories prior to sampling, and a simple random sample that is representative of the overall population is taken from the subpopulation. For example, location of delivery is a common subcategory. If enrollment in a particular course is 60 percent on-campus and 40 percent online, the sample should reflect those percentages. This is the preferred method to ensure comparisons based and where and how students take a course.

Self-Selecting Sample

A self-selecting sample essentially allows a student to opt in to the assessment. This method of sampling is prone to self-selection bias and may not be representative of the population or may exaggerate certain characteristics of the population.

Sample Size

The size of the sample should be discussed with the institutional effectiveness office but will generally be either a percentage sample or a sample based on desired statistics. Deviations from these protocols will require approval from the academic dean for the program/discipline.

Percentage Sample Size

The sample size may be selected based on a designated percentage, typically 15 percent or 15, whichever is greater. It may be desirable to increase the percentage if there are more faculty available for rating the student artifacts.

Calculated Sample Size

The sample size can be calculated using the margin of error and the confidence interval. For example, if the total population of students in a course is 200, 27 student artifacts would be required for a 90 percent confidence interval and a 15 percent margin of error. This essentially means that if you repeated the sampling and assessment 100 times, the actual population score would fall within 15 percent of the sample score 90 times out of 100.

The table below lists sample sizes based on the overall population, desired confidence interval and margin of error.

Sample Size Based on Population, Confidence Interval and Margin of Error

Population	90% Confidence Interval				95% Confidence Interval			
	20% Error	15% Error	10% Error	5% Error	20% Error	15% Error	10% Error	5% Error
25	11	14	19	23	13	17	21	24
50	13	20	29	43	17	24	34	45
100	15	24	41	74	20	31	50	80
150	16	26	47	97	21	34	59	109
200	16	27	51	116	22	36	66	132

Rubrics

Rubrics are a powerful tool for applying specific criteria to student work to measure student performance against standards. When using the same rubric, it is possible that raters will apply the criteria to student work differently. When possible, it is beneficial to use a rubric that has been tested for validity and reliability such as the Association of American Colleges and Universities (AAC&U) Value Rubrics. Rubrics may be used for assessing student learning in both curricular and co-curricular programs.

Inter-Rater Reliability

When assessing outcomes with a rubric or another assessment tool that has some degree of subjectivity, it is important to achieve consistency between raters. Increased consistency improves the reliability of the results of the assessment. Calibration or norming sessions can help a group of raters increase consistency in evaluating student work. Additionally, these sessions are an opportunity for faculty/staff to discuss how students should demonstrate specific criteria as well as increasing confidence in using a rubric correctly. Inter-rater reliability needs to be addressed any time more than one person is evaluating student artifacts.

Calibration and Norming

When using a rubric for a specific assignment, it is important that raters score a particular artifact consistently. It is unlikely that there will be perfect agreement on scoring a particular criterion, but norming is an important process to (a) have a consensus on the definition of the criteria and (b) increase the consistency of rating between raters. For more information, contact the institutional effectiveness office.

ANNUAL ASSESSMENT PLAN AND REPORTING FRAMEWORK			
Program Name or Discipline and MnTC Goal Area(s) (if applicable):	Paralegal	Academic Year:	2018-2019
Program Faculty:	[Faculty names]	Plan Reviewed: (Admin Name & Date)	[Admin name] 1/19/19
		Plan Submitted: (Faculty Name & Date)	[Faculty name] 1/10/19
Statement of Purpose (optional):			

Part 1. Student Learning Outcomes – Direct Measures

Outcome	Core Ability	Assessment Method	Measure of Success	N=	Met	Not Met	Assessment Term/Year
1. Analyze basic accounting principles.	C	Embedded accounting questions into a test in Advanced Paralegal	80% of class will score 75% or better on those questions				Spring 2020
2. Demonstrate effective use of technology.	E	Setup and screenshot legal research database. – Research and Writing I Legal encyclopedia scavenger hunt assignment – Research and Writing I	100% of the class will demonstrate ability to set up and screenshot database 80% of class will score 85% or better on the assignment				Fall 2019 Fall 2019
3. Demonstrate written and oral communication skills.	A	Rubric graded Memorandum of Law	80% of class will score 85% or better				Spring 2020

Part 1. Student Learning Outcomes – Direct Measures

Outcome	Core Ability	Assessment Method	Measure of Success	N=	Met	Not Met	Assessment Term/Year
4. Employ critical thinking and complex legal reasoning.	B	Graded case brief in Research and Writing 11	80% of class will score 85% or better				Spring 2020
5. Explain the American legal system.		Embedded essay exam question in PARA1101 final	80% of the class will score 85% or better on the essay question				Fall 2019
6. Develop knowledge of substantive and procedural law.		Embedded exam question in PARA1101 final	80% of the class will score 85% or better on the essay question				Fall 2019
7. Develop sound legal writing skills.	A	Rubric graded Memorandum of Law Advanced Paralegal Course	80% of the class scores 85% or better.				Spring 2020
8. Demonstrate ethical and social responsibility.	D	Reflection paper discussing 5 hour experience of volunteer time to a non-profit	95% will turn in the paper documenting the 5-hour experience.				Spring 2019

Part 2. Student Learning Outcomes – Indirect Measures

Goal Area/Outcome	Assessment Method	Measure of Success	N=	Met	Not Met	Assessment Term/Year
1. Related Employment Rate	Graduate follow-up survey	85% related employment rate	4		FY17, 3 of 4, 75%	Annually
2. Fall to fall persistence	Institutional data	60% of students will persist to the second fall term (current 3 yr average: 47%)				Annually
3. 3 Year Completion rate	Institutional data	45% of students will graduate within 3 years of enrollment (current 3 yr average: 31%)				2020-2021

Part 3. Action Plans

Program Outcome	Plan for Improvement	Results of Action Plan
1.		
2.		
3.		

ANNUAL ASSESSMENT PLAN AND REPORTING FRAMEWORK			
Program Name or Discipline and MnTC Goal Area(s) (if applicable):	Diesel Equipment Technology	Academic Year:	2018-2019
Program Faculty:	[Faculty names]	Plan Reviewed: (Admin Name & Date)	[Admin name] [Date]
		Plan Submitted: (Faculty Name & Date)	1/10/2019
Statement of Purpose (optional):			

Part 1. Student Learning Outcomes – Direct Measures

Outcome	Core Ability	Assessment Method	Measure of Success	N=	Met	Not Met	Assessment Term/Year
1. Demonstrate professionalism and related soft skills.	A	1. Professionalism and soft skills rubric evaluation in DSET2206 2. Interview / Rating of internship evaluator: DSET2220	85% of all students will score 4 or higher on the rubric				Spring 2019
2. Apply theory of vehicle operating systems	A	1. DSET 1144 Elec. TS 2. DSET 1132 Engine Theory 3. DSET 1110 Power Trains I 4. DSET 1112 Basic Hydraulics	DSET 1144 80% of students will show a 20% increase from pre to posttest with a score of 60% or higher. DSET 1132 80% of students will show a 35% increase from pre to posttest with a score of 75% or higher. DSET1112 80% of students will show a 20% increase from pre to posttest with a score of 70% or higher. DSET 1110 80% of students will show a 20% increase from pre to posttest with a score of 75% or higher.		X S2018 X F2018	X S2018 DSET 1132 81% increased by 35% but only 76% scored 75% or higher DSET1110 86% increased by 20% or more only but only 55% scored 75% or higher. DSET1144 Spring 2019 90% scored 60% or above meeting the measure, however only76% increased by 20% or more, not meeting the measure.	Fall 2018 Spring 2019 DSET 1112 F 2019 DSET1132 S 2019 DSET1110 S 2019

Part 1. Student Learning Outcomes – Direct Measures							
Outcome	Core Ability	Assessment Method	Measure of Success	N=	Met	Not Met	Assessment Term/Year
3. Diagnose vehicle operating systems.							
4. Repair vehicle operating systems							
5. Interpret service information							
6. Exhibit safety practices and procedures	A	1. DSET1100 Introduction to Transportation. 2. SP2 Safety Training	95% of first year students will score 90% or higher on the combined 30 categories of the National SP2 Safety Training.		x		Fall 2018

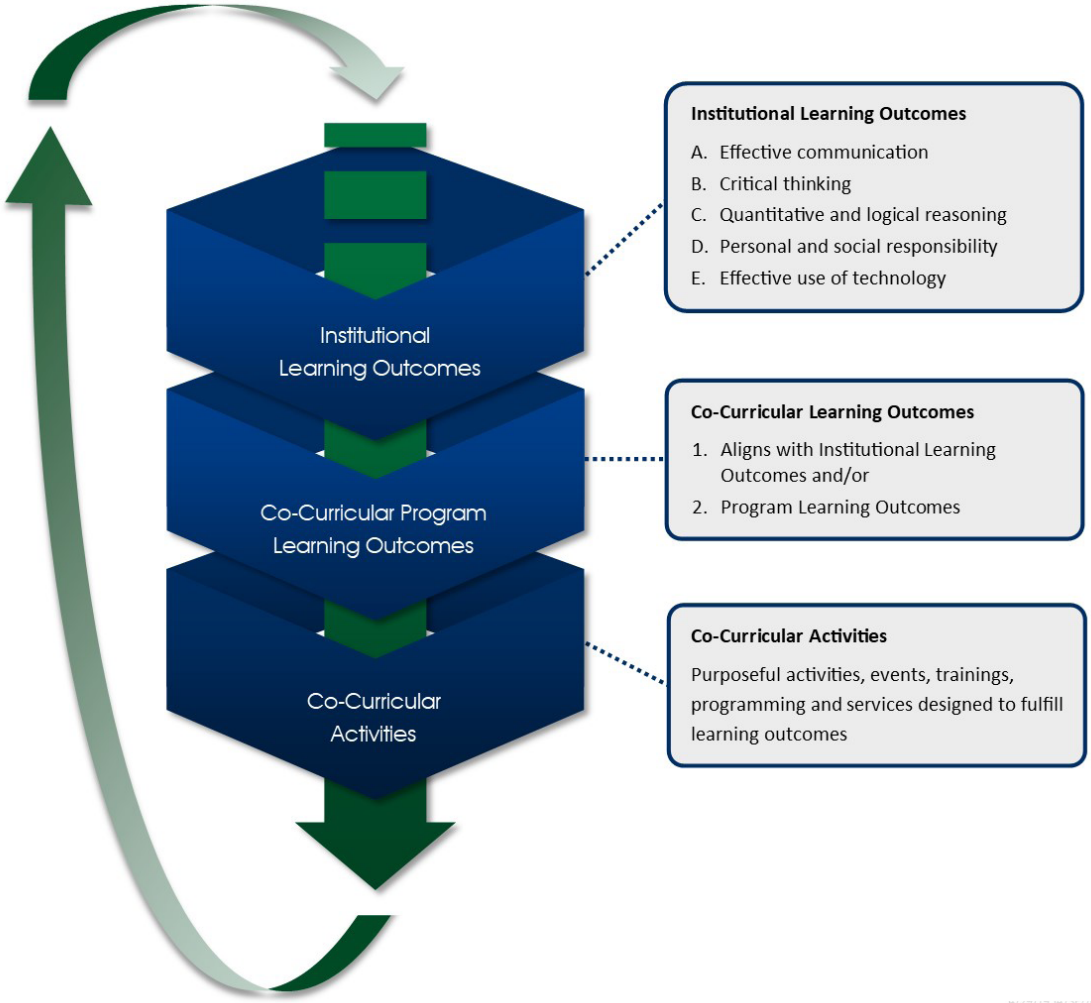
Part 2. Student Learning Outcomes – Indirect Measures						
Goal Area/Outcome	Assessment Method	Measure of Success	N=	Met	Not Met	Assessment Term/Year
1. Related employment rate	Minn State GRFU survey	95% of students will be employed the year after graduation	20	X FY17: 100%, both programs		Annually
2. Completion Rate	Institutional Data	65% of new students will complete within 3 years.	26		X Fall 2015 cohort AAS: 62% Dipl: 50%	Annually
3. Retention Rate	Institutional Data	75% of new students will be retained to the second fall				Annually

Part 3. Action Plans		
Program Outcome	Plan for Improvement	Results of Action Plan
1. DSET1110 Powertrain 1	80% of students did not score 75% or higher, Test Spring 2020 and re-evaluate. Will work on the Clutch part of this class to get the students up to 75%.	
2. DSET1132 Intro Engine Theory	76% scored 75% or higher, Measure was 80% of students will score 75% or higher. Students scored low in the areas that deal with valve relationship to engine stroke. Will emphasize during lecture and look at results spring 2020.	
3. DSET1144 Elec. TS	Because only 76% increased by 20% or more the students who did not achieve the goal struggled with meter usage and application. Use and application of the meter will be emphasized and thoroughly reinforced.	

CO-CURRICULAR ASSESSMENT

CO-CURRICULAR DEFINITION AND MODEL

Co-curricular experiences enrich the student learning environment by providing opportunities for students to learn from intentionally designed activities, events, programs and services that extend and complement classroom learning. Through its academic and co-curricular programs, Minnesota State Community and Technical College provides diverse and purposeful learning experiences to support student attainment of educational goals and to support the college's vision of a success story for every student.



CO-CURRICULAR PROGRAMMING

- Academic Bridge
- Admissions
- Advising
- Athletics
- Career Services
- Communications and Marketing
- Enrollment
- Financial Aid
- Fine Arts
- First Semester Check-in
- Library
- Residential Life
- Student Government Assoc.
- Tutoring/Spartan Centers

CO-CURRICULAR ASSESSMENT ACTION PLAN EXAMPLE

Minnesota State Community and Technical College

MISSION: Minnesota State Community and Technical College specializes in affordable and exceptional education, service, and workforce training. We welcome all students and engage them in shaping their futures and their communities.

VISION: A success story for every student. VALUES: Integrity. Inclusion. Innovation.

ANNUAL ASSESSMENT PLAN AND REPORTING FRAMEWORK - CO-CURRICULAR PROGRAMS			
Department:	Student Development Services – Academic Advising – First Semester Check-In (FSCI)	Year Range:	2018-2019
Department Personnel:	Academic Advisors, Director of Student Development Services	Plan Submitted: (Name and date)	[Name] 3/7/2019
		Plan Updated: (Name and date)	[Name] [Date]
Statement of Purpose:	First time in college students pursuing a Liberal Arts/AA major are invited to meet individually with their academic advisor where they will have focused conversation about academic goals, develop an academic plan and discuss strengths and any barriers to their education and resources available to assist in reducing/eliminating barriers to promote student success and retention.		

Co-Curricular Definition

Co-curricular experiences enrich the student learning environment by providing opportunities for students to learn from intentionally designed activities, events, programs and services that extend and complement classroom learning. Through its academic and co-curricular programs, Minnesota State Community and Technical College provides diverse and purposeful learning experiences to support student attainment of educational goals and to support the college's vision of a success story for every student.

Part 1. Co-Curricular Outcome Mapping

Outcome	Institutional Learning Outcome	M State Pillar of Success
1. Identified first time in college AA students complete the First Semester Check-in appointment with their academic advisor.	D. Personal and Social Responsibility	Student Success
2. Students who complete the CSI will have an awareness of their strengths, challenges and receptivity to assistance from their CSI survey results.	A. Effective Communication B. Critical Thinking D. Personal and Social Responsibility	Student Success
3. Students will express their educational goals and develop their path to completion.	A. Effective Communication B. Critical Thinking D. Personal and Social Responsibility	Student Success
4. Students will learn about and utilize support resources at the college.	A. Effective Communication	Student Success
5. Identified FSCI students who meet with an advisor will have a higher student persistence percentage than FSCI students that did not.		Student Success

Part 2. Co-Curricular Outcome Assessment Plan							
Outcome	Direct/ Indirect	Assessment Method	Measure of Success	N= (Total Number)	Met	Not Met	Assessment Schedule
1. Identified first time in college AA students complete the First Semester Check-in appointment with their academic advisor.	Indirect	Advisors record students who complete a First Semester Check-in appointment on a college-wide excel spreadsheet.	75% or more of the students identified as first time in college with AA major met with an academic advisor.	Enter #	☐	☐	Enter term
2. Students who complete the CSI will have an awareness of their strengths, challenges and receptivity to assistance from their CSI survey results.	Direct	Identified FSCI students complete a survey at the end of their first semester.	80% of students who complete the CSI survey will be able to cite 1-2 of their strengths, challenges and receptivity to assistance. 15% response rate of students surveyed.	Enter #	☐	☐	Enter term
3. Students will express their educational goals and develop their path to completion.	Indirect	Advisors record students who develop an academic plan on a college-wide excel spreadsheet.	95% of students who meet with advisors will develop an academic plan.	Enter #	☐	☐	Enter term
4. Students will learn about and utilize support resources at the college.	Direct	Identified FSCI students complete a survey at the end of their first semester.	50% of students who meet with an advisor will be able to signify at least one support resource they utilized during the semester. 15% response rate of students surveyed.	Enter #	☐	☐	Enter term
5. Identified FSCI students who meet with an advisor will have a higher student persistence percentage than FSCI students that did not.	Indirect	Fall to Fall persistence data of identified FSCI students.	FSCI students who meet with an advisor, their persistence rate will be higher than students who did not meet with an advisor. (encompass both retention of student at M State and persistence of student at another institution) Do we need to have a %? State statistically significant?	Enter #	☐	☐	Enter term

Part 3. Co-Curricular Action Plans		
Outcome	Plan for Improvement	Results of Action Plan
1. Click here to enter text	Click here to enter text	Click here to enter text
2. Click here to enter text	Click here to enter text	Click here to enter text
3. Click here to enter text	Click here to enter text	Click here to enter text
4. Click here to enter text	Click here to enter text	Click here to enter text
5. Click here to enter text	Click here to enter text	Click here to enter text

Part 4. Summary
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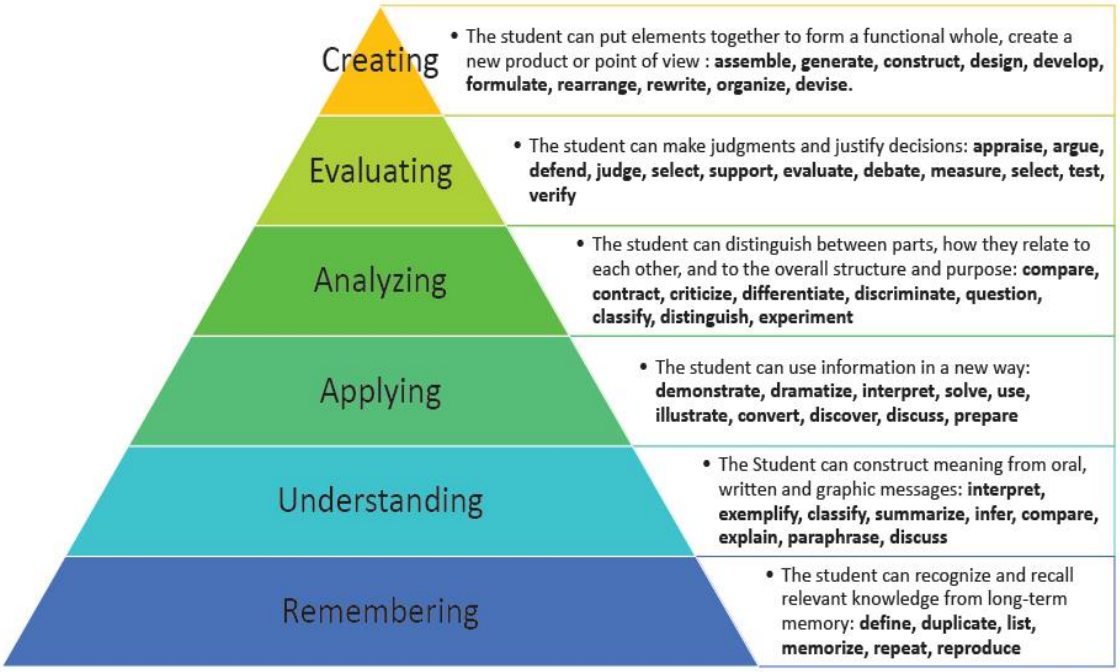
ASSESSMENT GLOSSARY

Alignment
The linking of intended student learning outcomes with the processes and practices needed to foster those outcomes. Whatever the level or framework, the idea is to get everyone rowing in the same direction - with course, program, institutional and even national-level outcomes aligned in ways that create more intentional pathways to student learning and success.[1]

Bloom's Taxomony[2]
This is also the model for instructional alignment which includes learning objective, course competency, program outcome and ILO assessment.



http://p2cdn4static.sharpschool.com/UserFiles/Servers/Server_87286/Image/Vridder/Staff/BloomRevisedTaxonomy.jpg

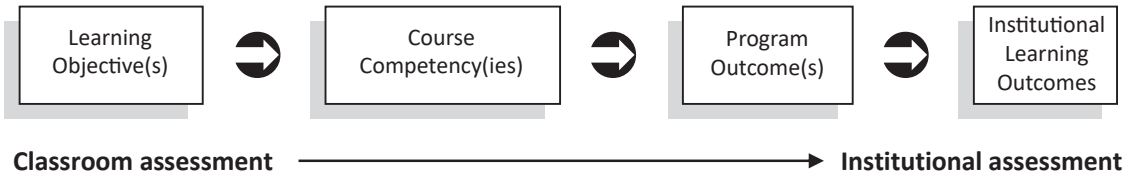
Course Competency (often referred to as course outcome)
Broad statement of knowledge, skills or behaviors that a student should demonstrate upon course completion.[3]

- Competencies should begin with an action verb.
- Competencies are assessed at a Bloom's level appropriate for the course.
- Scaffold to the program outcomes and program outcomes should be supported by the course competencies.

Criteria
The qualitative or quantitative guidelines, rules, principles or statements by which learner responses, work products or mastery are evaluated.[4]

Institutional Learning Outcomes (ILO)
Broad-based learning goals that serve as the foundation of the educational experience at M State. The ILOs are linked to our mission and vision statements and are the focus of institutional assessment.

Learning Objective
Narrow, specific knowledge, skill or ability demonstrated by the student.



NOTE: A single tool may be used for all levels of assessment (see course-embedded assessment).

Program Outcome
A robust statement that encompasses the knowledge, skills and behaviors developed over the duration of the program through a wide range of courses and educational experiences. The program outcomes describe the competencies demonstrated by the ideal program graduate.[3] Outcomes should begin with an action verb and are assessed at the higher levels of Bloom's taxonomy.

Qualitative Measures
Include narratives such as responses to open-ended survey questions or information gathered from focus groups.[5]

Quantitative Measures
Include numerical evidence of student learning such as an exam score or percentage of students passing a licensure exam.[5]

Rubrics
Provide specific, objective and consistent performance criteria to evaluate student work. They outline the knowledge, skills and behaviors indicative of various levels of learning. Rubrics may be shared with students before an assignment to provide expectations and allow opportunities for student self-assessment.[5]

Scaffolding
Instructional scaffolds are temporary support structures faculty put in place to assist students in accomplishing new tasks and concepts they could not typically achieve on their own. Once students are able to complete or master the task, the scaffolding is gradually removed or fades away, and the responsibility of learning shifts from the instructor to the student.[6]

Assessment Types

Authentic Assessment
Assessments that are "more authentically related to later uses of learning than are conventional tests. Simulations, hands-on field or laboratory exercises, research projects and juried presentations" are examples of authentic assessments. Authentic assessments will vary by subject and are designed to assess students' abilities to perform or problem solve as they will need to in their chosen career or discipline.[7]

Course-embedded Assessment
Involves multi-layer assessment. Student work is evaluated for a grade, as well as to determine whether course competencies have been met. The work may also be used to assess program outcomes and/or ILOs.[8]

Course-embedded assessments may include exams, research papers, projects, lab reports, etc.

Course-embedded assessments may also include formative techniques used throughout the course to improve teaching and learning.[8]

Direct Assessment
Includes evaluation of student work or actions that demonstrates specific learning has taken place. Examples of direct

assessment include evaluation of student projects or papers by a rubric as well as embedded exam questions.

Formative Assessment

Monitors student learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. Formative assessments are low stakes with little or no point value.[9] Formative assessments may include concept maps, clicker questions and short summaries to identify main topics.

Indirect Assessment

Implies that learning has taken place, but does not demonstrate that learning or skill. Examples of indirect assessment include student surveys and interviews, course evaluations, retention, graduation and job-placement rates.[5]

Summative Assessment

Evaluates student learning at the end of a course or program. It is used to determine if, and at what level, the competencies have been met. Summative assessments are high stakes with high point value.[9] Summative assessments examples include a midterm exam, paper, recital or skills test.

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ASSESSMENT HISTORY AND RESULTS

WHERE WE HAVE BEEN

M State continues extensive work to improve assessment of learning processes. The Institutional Effectiveness Council, assessment workgroup, AASC, Shared Governance Council, faculty and academic and student development services administrators have provided significant input to inform improvements to processes in the last six years.

During the 2013-2014 academic year, M State's assessment work group began to design an ILO assessment model. Broad-based input was provided by AASC, Shared Governance Council, faculty and the academic administrative team. M State's participation in the Multi-State Collaborative Assessment Project helped to inform the decision to use the Association of American Colleges and Universities Value (AAC&U) rubrics for the ILO assessment model. The model was finalized in 2015-2016 and the first college-wide assessment of the ILOs was conducted. Prior to implementing the improved assessment process, M State had limited assessment of student learning data.

Faculty members utilized a capstone or end-of-term assignment as an artifact that aligned with the ILO they identified to assess. Faculty members identified the appropriate AAC&U rubric and positioned the level of student performance along the performance levels of the rubric- benchmark 1, milestones 2 or 3, or capstone 4. For the 2017-2018 ILO cycle, 100 percent of tenured faculty completed the first step of the process, which was to select the course, student artifact and rubric used to complete the assessment. Beginning in 2018-2019, ILO assessment is being incorporated in student learning assessment at the program, discipline and co-curricular levels.

ASSESSMENT HISTORY

ILO Assessment Process and Resources (FY2016)
Developed Executive Summary of Assessment, the Assessment Handbook and ILO reporting tools.

ILO Data Collection (FY2016-2018)
Action plans were developed for course and ILO assessment. While there were valuable assessment activities occurring during this time, available data and accreditation feedback pointed to the need for a more integrated process relative to program outcome, general education outcome and co-curricular assessment. ILO data was reviewed by administration, staff and faculty at the all college duty day.

Annual Course and/or Program Assessments (FY2013-FY2018)
Applicable at the course and program levels, however had a high degree of variability.

Co-Curricular Assessment (Initiated FY2019)
In fall 2018, the Co-curricular Work Group created a formal definition clearly defining co-curricular programming and articulated the purpose and outcomes for co-curricular assessment. Phase I of co-curricular assessment plans were finalized spring 2019 and moved on to data collection. Phase II will create plans and start collecting data over the 2019-2020 academic year.

Institutional Effectiveness Council (Initiated FY2019)
The Institutional Effectiveness Council was formed and started meeting fall 2019. One of the council's outcomes is to develop a shared understanding of key components involved in assessment. I.e., assessment terminology, HLC assessment report expectations and review progress.

THE FUTURE OF M STATE

The college will practice an aligned and systematic program review process that incorporates student learning outcome assessment long-term. The practice will:

- Be informed by student preparedness
- Incorporate both direct and indirect assessment
- Compare with national and/or state benchmarks
- Address student learning across faculty and modalities
- Incorporate inter-rater reliability (if applicable to the assessment tool)
- Produce reports analyzed across the institution
- Invest in faculty leaders for assessment

WHAT WE HAVE LEARNED

Summary of ILO Assessment Results

The ILO data from 2015-2016 show the Effective Communication ILO as a strong area of student learning/performance for M State students, particularly with respect to Indicator 2 – the learner speaks clearly, concisely and accurately in a variety of contexts and formats. The percentage of student artifacts that were scored at milestone 2 or above learning levels was at least 94 percent across all the Oral Communication Rubric reported categories. In addition, the data indicates that the Personal and Social Responsibility ILO is a strong area of student learning/performance, particularly for Indicator 5- the learner demonstrates the ability to work in a team. The percentage of student artifacts that were scored at milestone 2 or above learning levels was at least 93 percent in the Teamwork Rubric reported categories. The Critical Thinking ILO data indicates that Indicator 2- learner distinguishes between facts, fallacies, inferences and judgments is a strong area of learning. The percentage of student artifacts scored at milestone 2 or above learning levels was at least 91 percent across the rubric categories. Indicator 3- learner considers multiple perspectives in problem solving showed similar results; ratings of student artifacts at milestone 2 or above levels ranged from 91 percent to 99 percent. Indicator 1- learner draws conclusions based on evidence suggests an area for learning improvement, as student artifacts scoring at milestone 2 or above level were lower at 85 percent. The quantitative and logical reasoning ILO data indicates that Indicator 1- learner performs computations using appropriate methods continues as a stronger area of learning than Indicator 2- learner demonstrates numerical and logical reasoning. The percentage of student artifacts scored at milestone 2 or above learning levels was at least 84 percent along the rubric categories for Indicator 1. The percentage of student artifacts scored at milestone 2 or above for Indicator 2 ranged from 70 percent to 93 percent.

During the 2016-2017 cycle, data again point to the Effective Communication ILO as a strong area of student learning/performance for M State students, particularly with respect to Indicator 2- the learner speaks clearly, concisely and accurately in a variety of contexts and formats. The percentage of student artifacts that were scored at milestone 2 or above learning levels was 95 percent in two of the rubric categories. In addition, the data indicates that the Personal and Social Responsibility ILO is a strong area of student learning/performance, particularly for Indicator 5- the learner demonstrates the ability to work in a team. The percentage of student artifacts that were scored at milestone 2 or above learning levels was at least 94 percent across the reported rubric categories. The Critical Thinking ILO data indicates that Indicator 2- learner distinguishes between facts, fallacies, inferences and judgments is a stronger area of learning than Indicator 3- learner considers multiple perspectives in problem solving. The percentage of student artifacts scored at milestone 2 or above learning levels was at least 90 percent across the rubric categories, whereas the percentage of student artifacts that scored at milestone 2 or above level for problem solving ranged from 71 percent to 92 percent. The quantitative and logical reasoning ILO data indicates that Indicator 1- learner performs computations using appropriate methods is a stronger area of learning than Indicator 2- learner demonstrates numerical and logical reason. The percentage of student artifacts scored at milestone 2 or above learning levels was at least 91 percent along the rubric categories for Indicator 1, whereas the percentage of student artifacts that scored at milestone 2 or above for problem solving ranged from 77 to 95 percent.

In both cycles of ILO assessment, the assessment work group reviewed the data for the multicultural and global awareness indicator of the Demonstrating Personal and Social Responsibility and the Effective Use of Information Technology ILO and determined additional data is needed for both.

The analysis of the ILO assessment data led to a formal discussion at a fall 2017 faculty in-service. During this discussion, faculty and academic administrators identified questions about potential curriculum gaps related to the Demonstrate Personal and Social Responsibility ILO, multiculturalism and global awareness indicator and the Effective Use of Information Technology ILO. There was agreement that additional faculty input and curriculum review are needed in these areas to do more meaningful analysis.

INCORPORATING WHAT WE LEARNED

Current student learning outcome assessment processes incorporated the lessons learned during the first iteration of ILO assessment. Through the process, faculty were introduced to the AAC&U Value Rubrics, which many faculty still use today because they are valid and reliable. The ILO assessment process, as well as the results, were disassociated from the day-to-day classroom activities. Moving from student performance results to action was difficult. However, the process did uncover potential gaps between the ILOs and M State's formal academic curriculum. The second challenge was inter-rater reliability. Based on the design of the process, it was not possible to norm the ratings of the entire faculty body.

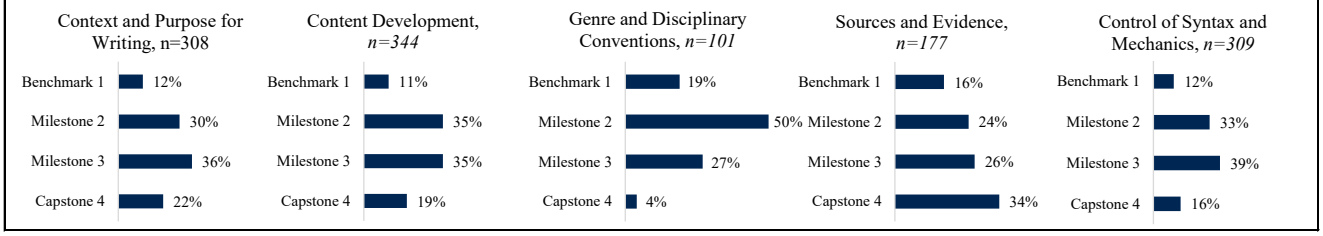
The revised assessment process accounts for inter-rater reliability and allows faculty direct access to the results and action planning. Through the process, general education faculty assess student work according to the MnTC goal areas on the course level. Program faculty assess student learning at the course and program levels. In addition, evidenced through several assessment plans where several faculty continue to use the AAC&U Value Rubrics, the ILO assessment processes introduced a powerful tool for assessing student learning.

Minnesota State Community and Technical College

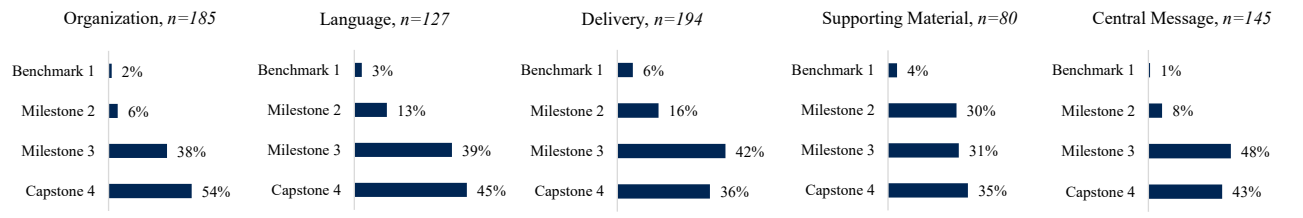
2015-2016 Institutional Learning Outcome Assessment Results

Effective Communication

AAC&U Value Rubric: Written Communication
Representing 362 Student Artifacts

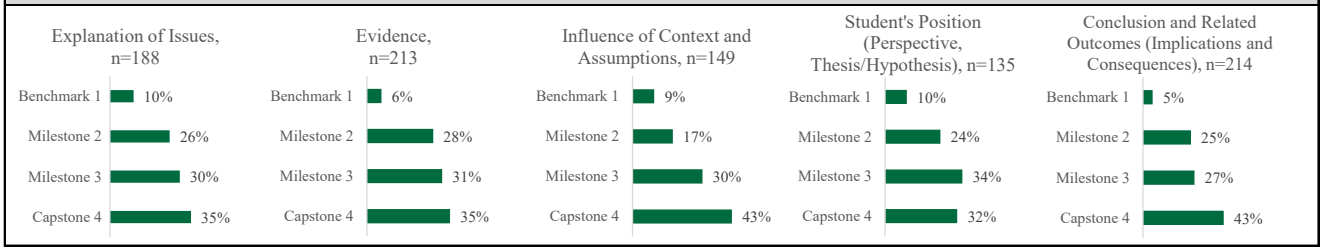


AAC&U Value Rubric: Oral Communication
Representing 194 Student Artifacts

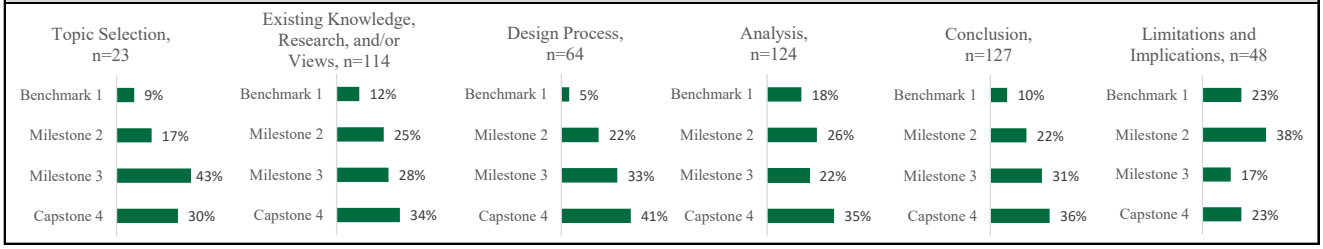


Critical Thinking

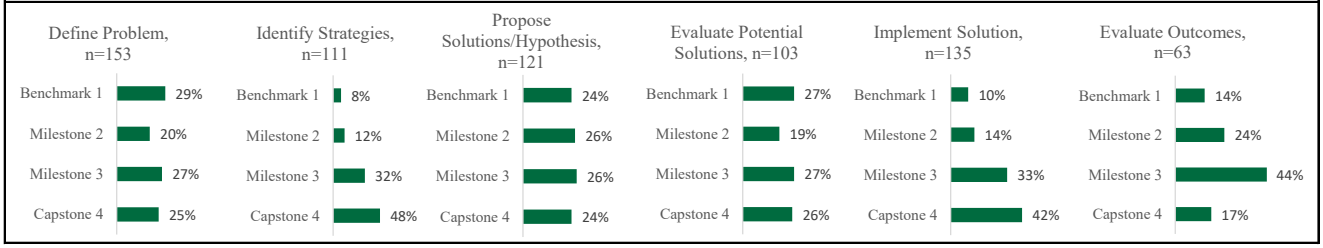
AAC&U Value Rubric: Critical Thinking
Representing 266 Student Artifacts



AAC&U Value Rubric: Inquiry and Analysis
Representing 150 Student Artifacts

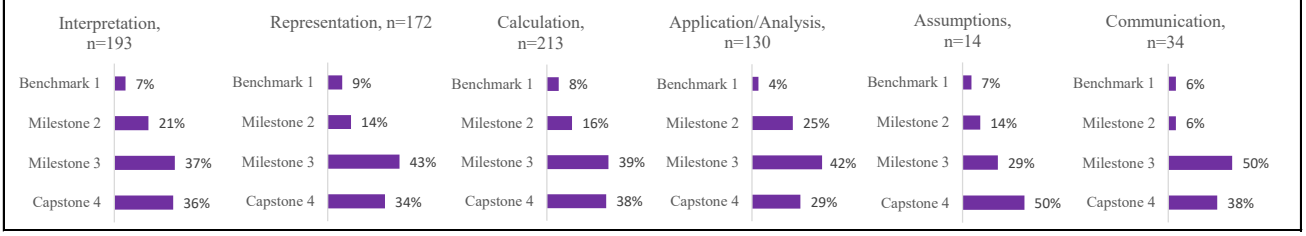


AAC&U Value Rubric: Problem Solving
Representing 215 Student Artifacts

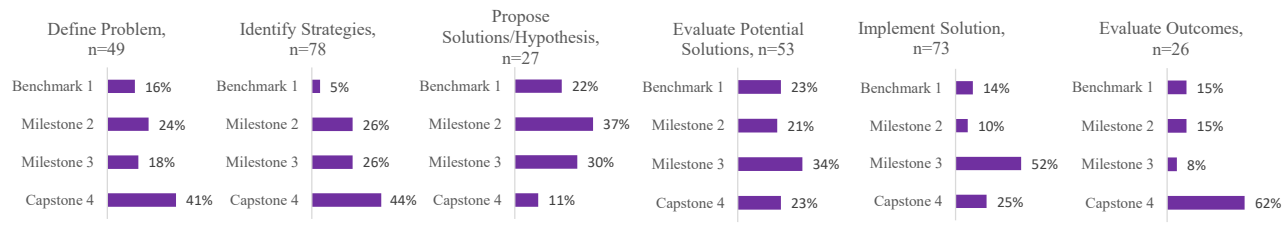


Quantitative/Logical Reasoning

AAC&U Value Rubric: Quantitative Literacy
Representing 227 Student Artifacts

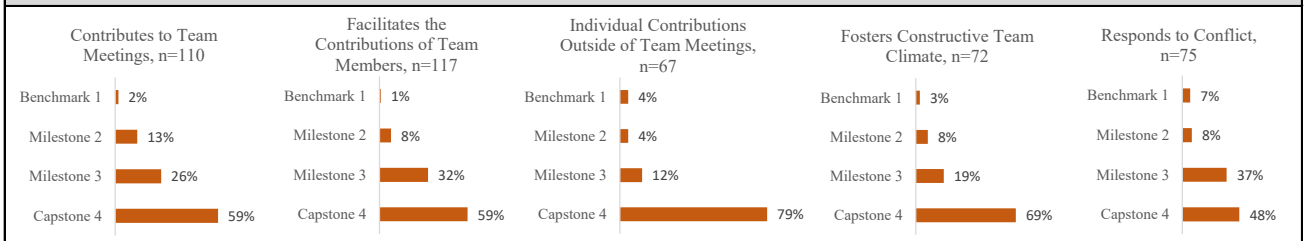


AAC&U Value Rubric: Problem Solving
Representing 94 Student Artifacts

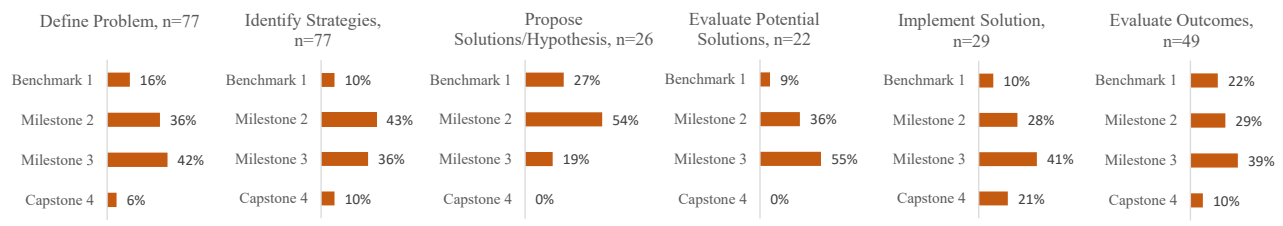


Personal and Social Responsibility

AAC&U Value Rubric: Teamwork
Representing 117 Student Artifacts

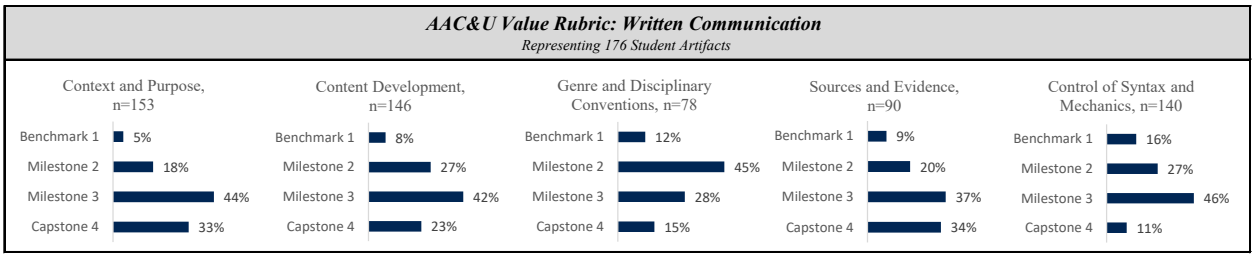


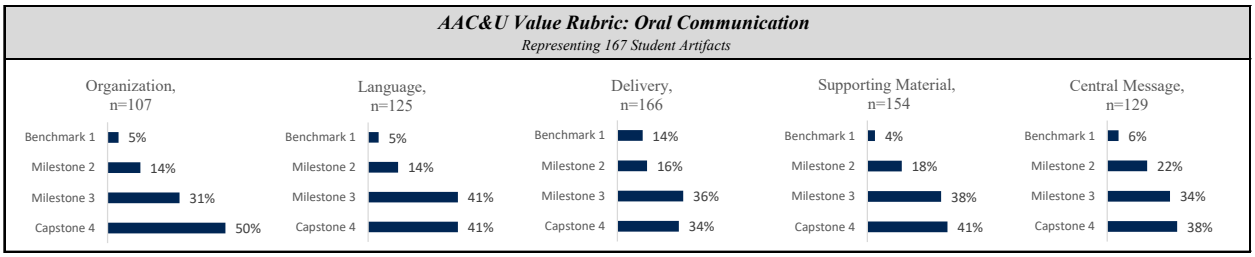
AAC&U Value Rubric: Problem Solving
Representing 77 Student Artifacts

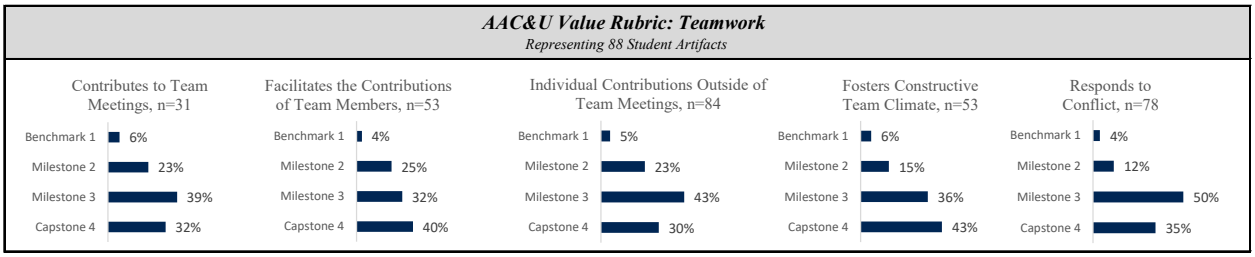


2016-2017 Institutional Learning Outcome Assessment Results

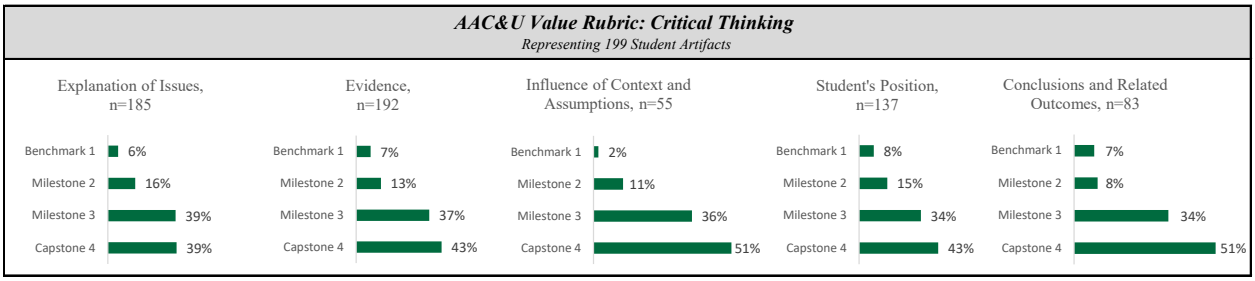
Effective Communication

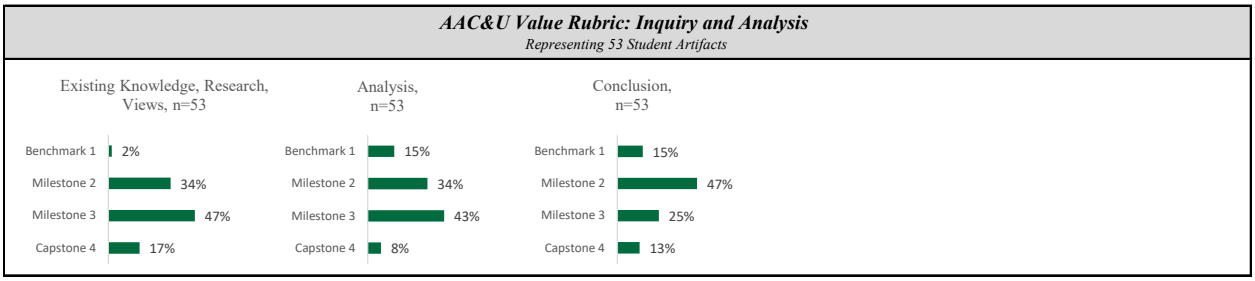


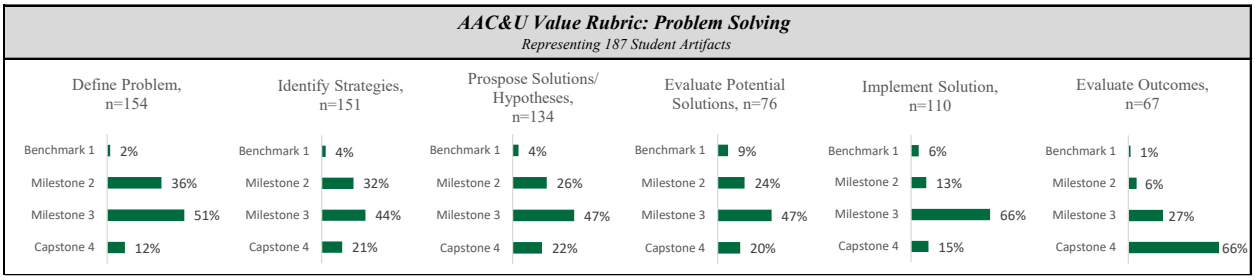




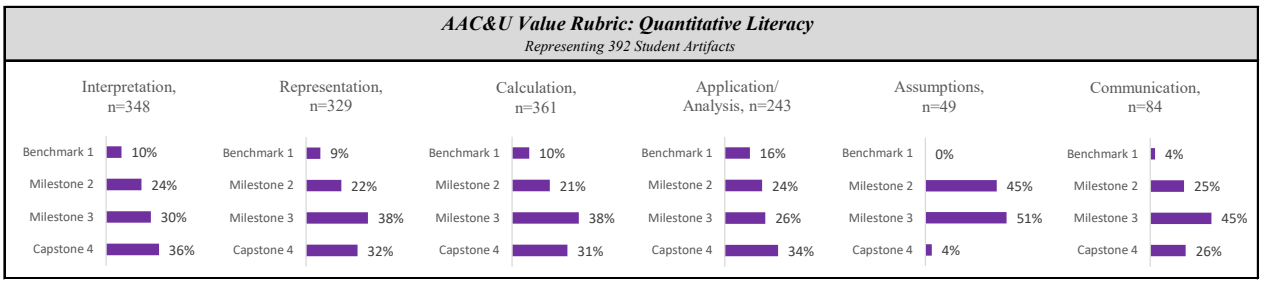
Critical Thinking

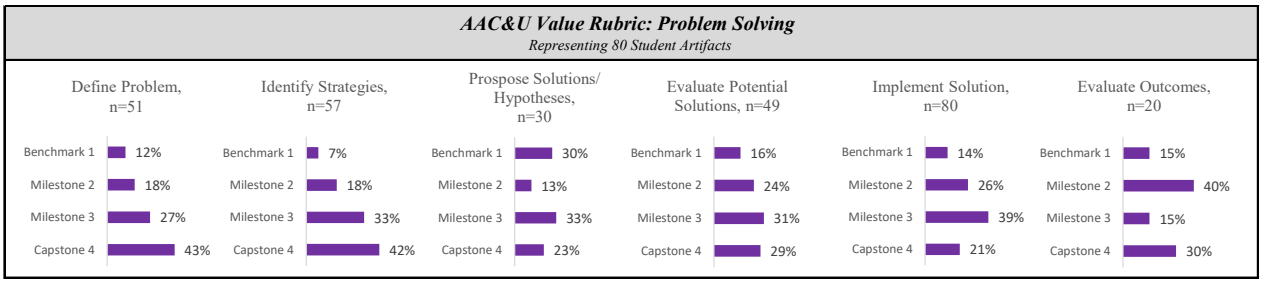




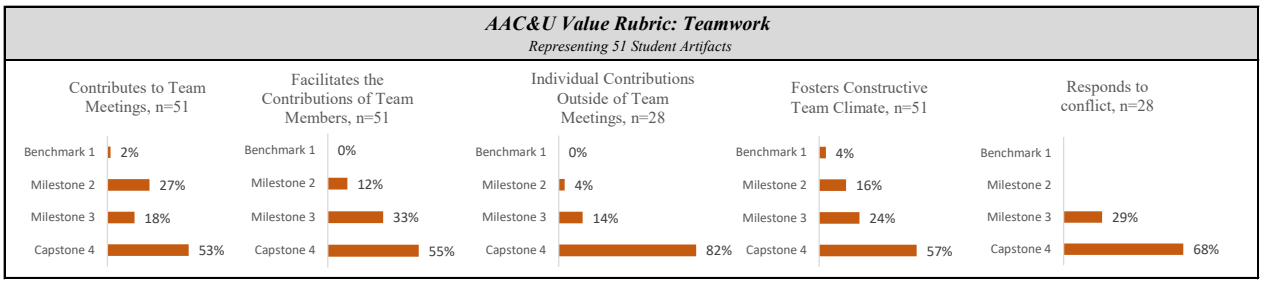


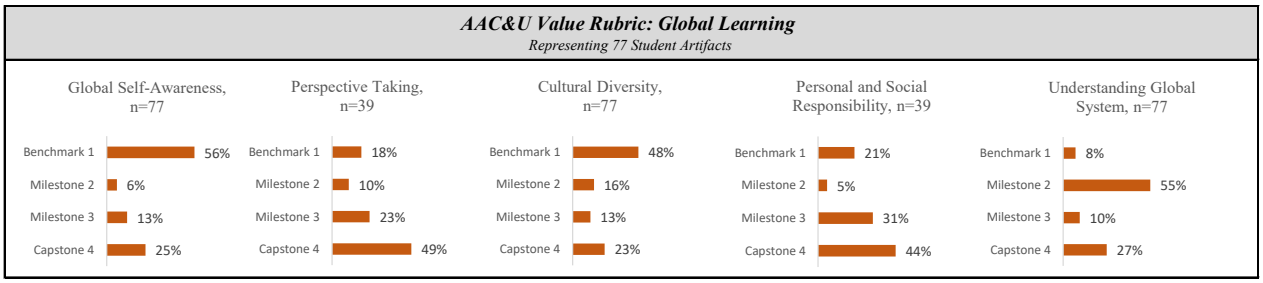
Quantitative/Logical Reasoning

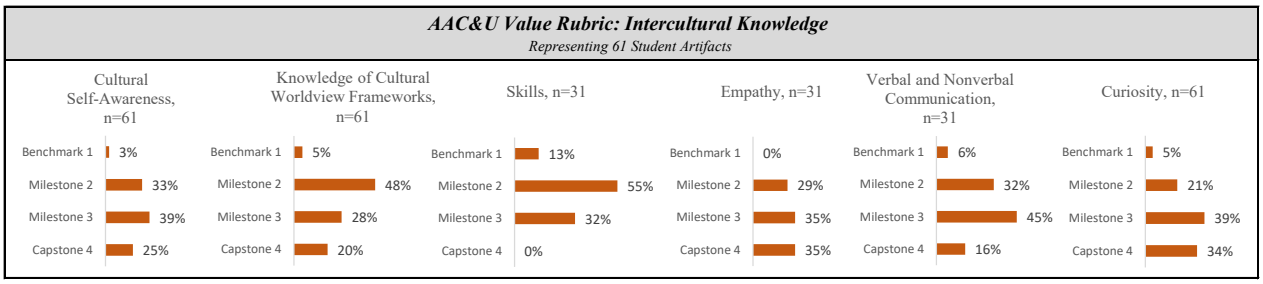




Personal and Social Responsibility








MINNESOTA STATE
COMMUNITY AND TECHNICAL COLLEGE