



General Education Assessment Report

Fall 2023 – Summer 2025

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Overview of General Education Assessment

This report presents the results of the General Education Assessment activities conducted at Washtenaw Community College (WCC) between Spring/Summer 2023 and Winter 2025. The purpose of this assessment process is to evaluate how effectively students are achieving the College's established General Education Outcomes across a broad range of disciplines and courses.

General Education Assessment at WCC is designed to support continuous improvement in teaching, learning, and curriculum development. Faculty from multiple academic disciplines collaborate to identify performance indicators, align course outcomes with institutional learning goals, and assess student achievement using a variety of discipline-appropriate assessment methods. These methods include written assignments, presentations, examinations, laboratory activities, portfolios, and other embedded course assessments.

This report summarizes assessment findings across six General Education Outcome categories and eight associated assessment areas. The data included in this report spans Spring/Summer 2023 through Winter 2025. While some of the Summer 2023 assessment data falls within the timeframe of the previous General Education Assessment Report submitted in Fall 2023, those results were submitted after the completion of that report and therefore were not formally included at that time. To ensure that all completed assessment activities are officially documented and represented, those Summer 2023 assessment results have been incorporated into the current report.

In addition to reporting student achievement data, this report highlights areas of instructional strength, identifies opportunities for improvement, and reflects the College's ongoing commitment to meaningful assessment practices, continuous institutional improvement, and student success. Below you will find listed the six general education outcomes and their associated eight sets of performance indicators.

Category 1

Writing Outcome

Develop, organize, and express thoughts in writing using Standard English.

Performance Indicators

1. Write a multi-paragraph essay/report that is clear, organized, complete and appropriate for the intended audience.
2. Respond to an idea in a thorough, logical, and credible manner.
3. Provide support for statements and/or opinions.
4. Write with minimal grammatical or mechanical errors.

Category 2

Writing Composition/Communication Outcome

Develop, organize, and express ideas in standard written English or verbal/non-verbal communication.

Division 1: Written Composition Performance Indicators:

1. Write a competent, academic argumentative essay.
2. Demonstrate critical thinking skills applied to writing.

Division 2: Verbal and non-verbal Communication Performance Indicators

1. Prepare and deliver a researched, organized, and purposeful speech.
2. Speak clearly, succinctly, and appropriately before an audience.
3. Demonstrate critical and comprehensive listening through evaluating messages conveyed by others.

Category 3

Mathematics Outcome

Recognize the applications and perform computations using the concepts of college-level mathematics.

Performance Indicators

1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables and/or schematics.
2. Represent mathematical information symbolically, visually, numerically and/or verbally.
3. Employ quantitative methods such as arithmetic, algebra, geometry or statistics to solve problems.

Category 4

Natural Sciences Outcome

Understand the principles and applications of modern science.

Performance Indicators

1. Recognize the principle concepts within a natural science discipline.
2. Use the scientific method to propose and test hypotheses through the interpretation of experimental data.
3. Apply the concepts of natural science to interpret observations and make inferences based on experimental results.
4. Recognize the impact and importance of sustainability in a field of science.
 - a. **Proposed change:** Recognize the relevance of sustainability and green chemistry across scientific disciplines.

Category 5

Arts and Humanities Outcome

Understand concepts related to the nature and variety of the human experience through literature, language, communication, humanities, and the arts.

Performance Indicators

1. Recognize distinctive cultural perspectives and human experiences through the study of language, arts, works, and texts.
2. Identify the origin, context and value of works as they relate to their respective cultures.
3. Identify the work presented and the method, technique or concept utilized in the work.
4. Interpret and apply linguistic structures, idiomatic tools, and cultural cues for effective communication.
5. Communicate effectively using verbal and nonverbal discourse adapted for diverse audiences and purposes.

Category 6

Social and Behavioral Science Outcome

Understand principles and applications of social and behavioral science in exploring the dynamics of human behavior.

Division 1: Behavioral Sciences Performance Indicators

1. Recognize and apply psychological and sociological perspectives to the understanding of human behavior.
2. Distinguish between pseudoscientific approaches to attaining knowledge (anecdotal, evidence, rumors, and common sense) as compared with scientific approaches (theory-driven methods based on empirically-based data).
3. Recognize that human behavior is a function of the intersectionality of factors at both the micro and macro level.

Division 2: Social Sciences Performance Indicators:

4. Recognize the forms, functions and purposes of government.
5. Recognize the differences between peoples and cultures in past environments and how and why those cultures changed over time.

HUMANITIES, SOCIAL AND BEHAVIORAL SCIENCES (HSS) DIVISION

Population, Sample and Data Collection

The HSS division consists of the Behavioral Sciences department, the Communication, Media and Theatre department, the English department, the Humanities department and the Social Sciences department. **19 courses** in these five departments were assessed between Fall 2023 and Spring/Summer 2025, and so were selected for general education assessment.

Writing Outcome

Develop, organize, and express thoughts in writing using Standard English.

Performance Indicators

1. Write a multi-paragraph essay/report that is clear, organized, complete and appropriate for the intended audience.
2. Respond to an idea in a thorough, logical, and credible manner.
3. Provide support for statements and/or opinions.
4. Write with minimal grammatical or mechanical errors.

Courses Assessed

Course Number	Course Name
ENG 226	Composition II (Argumentative Writing)

Population & Sampling

Course	Performance Indicators	Number of Students Assessed	Number of Students Enrolled	Assessment Semester(s)
ENG 226: Composition II	1, 2, 3, 4	147	682	Fall 25

The population for this writing general education assessment is all students in the following courses: ENG 226. The total number of students registered for all sections of these courses was 682 for Fall 2025.

Only 9 sections of ENG 226 used the revised curriculum, so only those sections were part of this report. All students in these sections were assessed, but it should be noted that of those 147 students, 9 of them stopped participating in their course within the first quarter of their term, so this is reflected in the overall numbers.

Course	Assessment Tools
ENG 226: Composition II	Essays, Genre Pieces and Presentations

In ENG 226, a combination of three essay assignments, genre pieces and presentations of a final portfolio were used to assess Performance Indicators 1-3 and the three essay assignments were also used to assess Performance Indicator 4. The standard of success used for this assessment is that 70% of the assessed students will score 70% or higher.

Results and Recommendations

Performance Indicator	ENG 226
1	84.5%
2	84.5%
3	84.5%
4	82%

For all 4 performance indicators, the students assessed exceeded the standard of success with 84.5% meeting the standard for PIs 1-3 and 82% meeting the standard for PI 4.

- **PI 1: Write a multi-paragraph essay/report that is clear, organized, complete and appropriate for the intended audience.**

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
ENG 226	1,2	70% of students will score at 70% or higher on the assessment	Yes	84.5%

- **PI 2: Respond to an idea in a thorough, logical, and credible manner.**

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%

ENG 226	1,2	70% of students will score at 70% or higher on the assessment	Yes	84.5%
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• **PI 3: Provide support for statements and/or opinions.**

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
ENG 226	1,2	70% of students will score at 70% or higher on the assessment	Yes	84.5%

Student performance on PIs 1-3 exceeded the standard of success with 84.5% meeting or exceeding the standard. The data showed consistent improvement and exceptional performance among those assessed. The shows that the expression of critical thinking is evident throughout the course. The overall success rates of 84.5% shows that most students who undertake the course exit with a strong ability to critically think about their own and others' writing.

• **PI 4: Write with minimal grammatical or mechanical errors.**

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
ENG 226	1	70% of students will score at 70% or higher on the assessment	Yes	82%

While PI 4 was successfully met, grammar did not see notable improvement across all assessed sections. While it did not decrease, students do not appear to be improving their grammar in regards to their essays from start to finish. However, significant outliers exist in that those who scored lowly at the beginning of the semester and stayed in the course. These students, on average, improved their grammar scores.

Writing Composition/Communication Outcome

Develop, organize, and express ideas in standard written English or verbal/non-verbal communication

Division 1: Written Composition

Performance Indicators

1. Write a competent, academic argumentative essay.
2. Demonstrate critical thinking skills applied to writing.

Courses Assessed

Course Number	Course Name
ENG 226	Composition II (Argumentative Writing)

Population & Sampling

Course	Performance Indicators	Number of Students Assessed	Number of Students Enrolled	Assessment Semester(s)
ENG 226: Composition II	1, 2	147	682	Fall 25

The population for this Written Composition general education assessment is all students in the following courses: ENG 226. The total number of students registered for all sections of these courses was 682 for Fall 2025.

Only 9 sections of ENG 226 used the revised curriculum, so only those sections were part of this report. All students in these sections were assessed, but it should be noted that of those 147 students, 9 of them stopped participating in their course within the first quarter of their term, so this is reflected in the overall numbers.

Course	Assessment Tools
ENG 226: Composition II	Argumentative Essays, Genre Writing & Portfolio Presentation

In ENG 226, a combination of three essay assignments were used to assess Performance Indicator 1. The essays included a variety of argumentative style essays submitted over the semester. For Performance Indicator 2, genre piece assignments (professional email, instructions, cover letter, scholarship writing, etc. along with a final portfolio presentation) were used for the assessment. The standard of success used for both performance indicators for this assessment is that 70% of the assessed students will score 70% or higher.

Results

Performance Indicator	ENG 226
1	82%
2	87%

For both performance indicators, the students assessed exceeded the standard of success with 82% meeting the standard of success for PI 1 and 87% meeting the standard of success for PI 2.

PI 1: Write a competent, academic argumentative essay.

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
ENG 226	1	70% of students will score at 70% or higher on the assessment	Yes	82%

Based on data from this assessment, students are growing in their ability to build and deploy strong evidence-backed arguments. The overall success rates of 82% (88% if factoring in early-stop-outs), shows that most students who undertake the course exit with the ability to write in many different genres within the domain of argumentative essays. The biggest successful area of growth on the scoring rubrics throughout the course was Argumentation &

Thesis - two of the most weighted parts of those rubrics. Sources, Formatting, Structure, & Tone also saw growth, but not at as high a rate. Generally, students scored higher on subsequent essays, with significant outliers for those whose overall performance declined over a semester, or for those who missed an essay. This evidence seems to suggest that students who fully engage with the course materials and undertake each essay assignment see meaningful growth in PI 1, that is, their ability to write competent, academic argumentative essays.

PI 2: Demonstrate critical thinking skills applied to writing.

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
ENG 226	2	70% of students will score at 70% or higher on the assessment	Yes	87%

The data shows that critical thinking is evident throughout the course. With the overall success rates of 87% (93% if factoring in early-stop-outs), shows that most students who undertake the course exit with a strong ability to critically think about their own and others' writing. Even though there is a very high success rate for this PI, there could be improvement in more specific ways to assess it. Critical thinking is needed for all writing, but how to exactly assess that can be trickier. Adding in more descriptions, or even a line itself, into the rubrics that focus on attention to detail and critical thought might be helpful. More departmental input will be pursued before changes are made.

Division 2: Verbal and Non-verbal Communication

Performance Indicators

1. Prepare and deliver a researched, organized, and purposeful speech.
2. Speak clearly, succinctly, and appropriately before an audience.
3. Demonstrate critical and comprehensive listening through evaluating messages conveyed by others.

Courses Assessed

Course Number	Course Name
COM 101	Fundamentals of Public Speaking

COM 210	Nonverbal Communication
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Population & Sampling

Course	Performance Indicators	Number of Students Assessed	Number of Students Enrolled	Assessment Semester(s)
COM 101: Fundamentals of Public Speaking	1, 2, 3	128	527	Summer 2023
COM 210: Nonverbal Communication	1, 2, 3	20	34	Summer 2023
		Total # Assessed= 148	Total # Enrolled= 561	

The population for this Verbal and Non-Verbal Communication general education assessment is all students in the following courses: COM 101 and COM 210. The total number of students registered for all sections of these courses was 561 for Winter 2023.

In both courses students were randomly collected from all sections and modes offered in Winter 2023. In COM 101, every fifth student appearing on each section's course roster, who completed the assignment, was assessed. In COM 220, a random sample of 20 students or 10 from each section of the course were assessed. The total number of students assessed in both courses combined was 148, or 26.4% of all students enrolled.

Course	Assessment Tools
COM 101: Fundamentals of Public Speaking	Informative and Persuasive Speeches
COM 220: Nonverbal Communication	Student Presentation Assessment

In COM 101 Students were assessed based on informative and persuasive speeches—both speech preparation and performance were assessed. The standard of success was that 70% of students would score 70% or higher.

In COM 220 Student Presentation Assessment Form was used to assess this outcome. Each student was asked to identify, research and present functions or categories of nonverbal communication, unique to a culture other than their own. The standard of success was that 70% of students would score 75% or higher.

Results and Recommendations

Performance Indicator	COM 101	COM 220
1	85.5%	90%
2	85%	90%
3	85.5%	90%

In COM 101, students met the standard of success for all three of the performance indicators. In COM 220, 90% of students met the standard of success for all three of the performance indicators.

PI. 1: Prepare and deliver a researched, organized, and purposeful speech.

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
COM 101	1, 2	70% of students will score at 70% or higher on the assessment	Yes	85.5%
COM 210	3	75% of students will score at 75% or higher on the assessment	Yes	90%

The standard of success was met in both courses for PI 1. In COM 101, the development of introductions, conclusions and source citations in speaking plans are areas students tend to struggle with most in preparing the speech due to the focus they often invest in completing the outline of points in the body of the speech. However, these are areas for which we will continue to provide a bit more focused hands-on practice prior to final speech submission in order to build on and increase the current proficiency. These data indicates students are excelling at the selection, development, organization, support of ideas and visual depiction of

speech content. Students are demonstrating competency related to retaining and delivering the organization of ideas planned in advance. In COM 220, the standard of success showed that students were effective in not only applying course concepts in a presentation, but also in giving a clear example of each to their chosen culture. This shows an advanced understanding and research of the foundational concepts in nonverbal communication.

PI. 2: Speak clearly, succinctly, and appropriately before an audience.

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
COM 101	2	70% of students will score at 70% or higher on the assessment	Yes	85%
COM 210	3	75% of students will score at 75% or higher on the assessment	Yes	90%

Again, in both courses assessed, COM 101 and COM 210, students exceeded the standard of success for this PI. In COM 101, 85% of students scored a 70% or higher on the assessment. In COM 210, 90% of students met the standard of success. As mentioned above, the data suggests the competency exhibited in the planning of ideas is establishing enough confidence in students to directly connect with an audience through consistent eye contact and deliver messages with vocal dynamics during speech delivery. These are all critical elements to master for any speaker.

PI. 3: Demonstrate critical and comprehensive listening through evaluating messages conveyed by others.

Courses Assessed	Student Learning Outcome (SLO)	Standard of Success	Met Standard of Success	%
COM 101	1, 2	70% of students will score at 70% or higher on the assessment	Yes	85.5%
COM 210	3	75% of students will score at 75%	Yes	90%

		or higher on the assessment		
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In COM 101, the standard of success was met with 85.5% scoring 70% or higher on the assessment. It was noted that the data indicates students are excelling at the evaluation of messages conveyed by others through the selection, development, organization, and support of ideas in the process of speech development. While students are doing an excellent job locating and planning for the incorporation of sources to support ideas, students often find it awkward to cite where their information came from within the body of a speech as they deliver it. This skill is especially critical to master in preparation for any professional field. This element could be improved by designing more exercises, prior to the delivery of final speeches, to give students experiences which help them to make this portion of speech delivery more seamless.

In COM 210, the standard of success was met for PI 3 with 90% of students scoring 75% or higher on the assessment. Students excelled in their ability to listen and critically evaluate messages conveyed by others.

Arts and Humanities Outcome

Understand concepts related to the nature and variety of the human experience through literature, language, communication, humanities, and the arts.

Performance Indicators

1. Recognize distinctive cultural perspectives and human experiences through the study of language, arts, works, and texts.
2. Identify the origin, context and value of works as they relate to their respective cultures.
3. Identify the work presented and the method, technique or concept utilized in the work.
4. Interpret and apply linguistic structures, idiomatic tools, and cultural cues for effective communication.
5. Communicate effectively using verbal and nonverbal discourse adapted for diverse audiences and purposes.

The Arts and Humanities outcome is one of the most challenging to assess as the courses that are designated to fulfill this requirement span across fifteen (15) different disciplines and four (4) distinct departments. **Nine (9) courses** in these four (4) departments were assessed between Summer 2023 and Fall 2025, and so were selected for general education assessment.

Courses Assessed

Course Number	Course Name
ENG 181	African-American Literature
ENG 200	Shakespeare
ENG 242	Diverse Children's Literature
COM 101	Fundamentals of Public Speaking
COM 220	Small Group Communication
HUM 175	Arts and Cultures of Islam
PHL 244	Ethical & Legal Issues in Healthcare
PHL 250	Logic

SPN 201	Second Year Spanish I
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Population & Sampling

The population for arts and humanities general education assessment is all students enrolled in the following courses:

ARB 111, 122 ART 130/131/143/150 CHN 111, 122, 201 COM 101, 102, 130, 142, 200, 225, 183, 210 DAN 180 DRA 180 ENG 140, 160, 170, 181, 200, 208, 209, 218, ENG 211, 212, 213, 214, 222, 223, 224, 240, 242	FRN 111, 122 GDT 100 GRM 111, 122 HUM 101, 102, 103, 145, 146, 175, 189 MUS 140, 142, 180 PHL 101, 123, 200, 205, 240, 244, 245, 250 PHO 103 SPN 111, 122, 202, 205, 224
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There are 15 total disciplines in the arts and humanities general education assessment area. In this general education assessment, all available assessment data submitted since the Fall 2023 report was used. These data represents 5 disciplines out of the 15, or 33.3%. While we feel like this is a broad and fair representation, and includes courses that were missed in previous reports, there is good reason to work towards greater representation in future reports to help identify more granular areas for improvement and adjustments to assure we are meeting performance goals in all general education courses here at WCC.

The table below summarizes the number of students who were assessed by course and the semester that the assessment was completed. For each course a random representative sample was taken for the assessment. The total number of students enrolled in the courses assessed was 1119 and the total number assessed was 393.

Course	Performance Indicators	Number of Students Assessed	Number of Students Enrolled	Assessment Semester(s)
ENG 181: African American Literature	1, 2, 3	40	218	Summer 2023
ENG 200: Shakespeare	1, 2, 3	30	69	Summer 2023
ENG 242: Diverse Children's Literature	1, 2, 3	40	40	Summer 2023
COM 101: Fundamentals of Public Speaking	5	128	527	Summer 2023
COM 220: Small Group Communication	5	10	11	Summer 2023
HUM 175: Art and Culture of Islam	1, 2, 3	11	21	Summer 2023
PHL 244: Ethical and Legal Issues in Healthcare	3	102	196	Summer 2024
PHL 250: Logic	3	17	19	Summer 2024
SPN 201: Second Year Spanish I	4	15	18	Summer 2023
		Total # Assessed= 393	Total # Enrolled= 1119	

The five Humanities and Arts Performance Indicators (PI) were assessed using a variety of embedded assessment tools within each course assessed. The chart below gives an overview of each course assessment tool used, the course Student Learning Outcome (SLO) that is mapped to the general education PIs and the standard of success required.

Course	Assessment Tools	Course Student Learning Outcome (SLO)	Standard of Success
ENG 181: African-American Literature	Writing Sample	1, 2, 3	70% of students will score at 70% or higher on the assessment
ENG 200: Shakespeare	Writing Sample	1, 2, 3	
ENG 242: Diverse Children's Literature	Writing Sample	1, 2, 3	
COM 101: Fundamentals of Public Speaking	Student Presentation	1, 2	
COM 220: Small Group Communication	Student Presentation	3	
HUM 175: Arts and Cultures of Islam	Writing Sample	1, 2, 3	
PHL 244: Ethical & Legal Issues in Healthcare	Writing Sample	1, 2	
PHL 250: Introduction to Logic	Writing Sample	1, 2	
SPN 201: Second Year Spanish I	Written/Verbal Student Response	1, 2	

Results and Recommendations

The assessment findings for each PI are summarized below. Because of the variety of courses and disciplines, various types of artifacts were used: writing samples, written or verbal student responses, student presentations, and visual art projects. For all assessment tools, the standard of success was that 70% would achieve 70% or better on the assessment tool.

PI 1: Recognize distinctive cultural perspectives and human experiences through the study of language, arts, works, and texts.

Performance	ENG 181	ENG 200	ENG 242	HUM 175
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Indicator				
1	97.3%	96.6%	83.3%	78.53%

For PI 1, all courses assessed exceeded the standard of success set and show evidence that students are succeeding in their abilities to recognize distinctive cultural perspectives and human experience through their study of language, arts, works and texts. In future reports, assuring more assessment data across a wider variety of courses will be helpful to assure we gather a fuller picture of how whether this PI is being achieved throughout the curriculum.

PI. 2: Identify the origin, context and value of works as they relate to their respective cultures.

Performance Indicator	ENG 181	ENG 200	ENG 242	HUM 175
2	97.3%	96.6%	83.3%	78.53%

All courses assessed for PI 2 also exceeded the set standard of success. The goal for future improvements is to gather more data and assure all courses relevant to PI 2 are assessed and included in upcoming General Education Assessment reports.

PI. 3: Identify the work presented and the method, technique or concept utilized in the work.

Performance Indicator	ENG 181	ENG 200	ENG 242	HUM 175	PHL 244	PHL 250
3	97.3%	96.6%	83.3%	78.53	78.9%	78%

This performance indicator was also exceeded by all course assessed. For this PI, we are making excellent progress in gathering a fuller sample of course data. Here the plan for our next assessment is to maintain this level of breadth in course coverage.

PI. 4: Interpret and apply linguistic structures, idiomatic tools, and cultural cues for effective communication.

Performance Indicator	SPN 201
4	97%

SPN 201 did a fantastic job meeting PI 4 with 97% of students assessed meeting the standard. Languages is an area where we have not had consistent full-time faculty able to complete assessments across all Language courses offered. We have recently hired additional language faculty and also recruited adjunct faculty to participate in future assessments with the hope of gaining more data and including more language courses in upcoming assessments.

PI. 5: Communicate effectively using verbal and nonverbal discourse adapted for diverse audiences and purposes.

Performance Indicator	COM 101	COM 220
5	97%	93%

For PI 5, both COM 101 and COM 220 continue to exceed the standard of success set for each course and are showing excellent work in enabling students to communicate effectively.

In all Humanities and Arts courses assessed for this current report, the standard of success was achieved and exceeded for all performance indicators. These courses are doing excellent work in meeting general education outcomes and are serving our students very well. Since the average score for each PI met the goal, at this time, no changes for individual courses are recommended. In future reports, as already noted throughout, our goal is to include a broader sampling of courses in the assessment. All available data was used for this report, but efforts towards increasing general education assessment to include a broader array of offerings is needed to gather a fuller picture of how well we are meeting our Humanities and Arts General Education Assessment Performance Indicators.

Social and Behavioral Science Outcome

Understand principles and applications of social and behavioral science in exploring the dynamics of human behavior.

Division 1: Behavioral Science

Performance Indicators

1. Recognize and apply psychological and sociological perspectives to the understanding of human behavior.
2. Distinguish between non-scientific approaches to attaining knowledge (anecdotal, evidence, rumors and common sense) as compared with scientific approaches (theory-driven methods based on empirically based data).
3. Recognize that human behavior is a function of intersectionality at both the micro and macro level.

Courses Assessed

Course Number	Course Name
ANT 205	Introduction to Archaeology
PLS 112	Political Science
PSY 220	Human Development and Learning
PSY 296	Neuropsychology of Addiction
SOC 100	Principles of Sociology

Population & Sampling

The population for behavioral science general education is all students enrolled in the following courses:

ANT 202, 205, 265 PLS 112, 150, 211, 220, 241, 250, 260, 290	PSY 100, 107, 150, 200, 206, 220, 240, 251, 257, 260, 270, 296, 298, SOC 100, 202, 205, 206, 207, 216, 220, 225, 230, 250
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In this general education assessment of the Behavioral Sciences outcome, all available assessment data submitted since the Fall 2023 report is included. The table below summarizes the number of students who were assessed by course and the semester that the assessment was completed. For each course a random representative sample was taken for the assessment. The total number of students enrolled in the courses assessed was 1131 and the total number of students assessed was 478 or 42.2% of all students enrolled.

Course	Performance Indicators	Number of Students Assessed	Number of Students Enrolled	Assessment Semester(s)
ANT 205	2	83	116	Summer 2023
PLS 112	1, 2, 3	207	479	Summer 2023
PSY 220	3	45	92	Summer 2023
PSY 296	3	11	16	Summer 2023
SOC 100	3	132	428	Summer 2023
		Total # Assessed= 478	Total # Enrolled= 1131	

The three Behavioral Science Performance Indicators (PI) were assessed using a variety of embedded assessment tools within each course assessed. The chart below gives an overview of each course assessment tool used, the course Student Learning Outcome (SLO) that is mapped to the general education PIs and the standard of success required.

Course	Assessment Tools	Course Student Learning Outcome (SLO)	Standard of Success
ANT 205	Departmental Exam	1, 2, 3	75% of students will average 75% or higher on assessment
PLS 112	Departmental Exam	1, 2, 3	70% of students will score 70% or higher on assessment.
PSY 220	Departmental Exam	1, 2, 3	70% of students will

			score 70% or higher on assessment.
PSY 296	Departmental Exam	1, 2	70% of students will score 75% or higher on assessment
SOC 100	Course Assignment and Exam Questions	3	70% of the students will score 70% or higher on the assessment.

Results and Recommendations

The assessment findings for each Performance Indicator (PI) are summarized below. Because of the variety of courses and disciplines, various types of artifacts were used including departmental exams and course assignments. The standard of success varied by course. For PI 2, the standard of success was not met, but in both PI 1 and in PI 2, the standard was either met or exceeded. The results for each Performance Indicator are shown below.

PI 1: Recognize and apply psychological and sociological perspectives to the understanding of human behavior.

Performance Indicator	PLS 112
1	85.6%

PLS 112 met the standard of success set for the course for PI 1, with 85.6% meeting or exceeding the standard. Based on these assignments results, no changes are needed. In the future, more representation for other courses will be needed to assure we are meeting PI 1, but currently, the data suggests that PLS 112 is doing great work meeting this outcome.

PI. 2: Distinguish between non-scientific approaches to attaining knowledge (anecdotal, evidence, rumors and common sense) as compared with scientific approaches (theory-driven methods based on empirically based data).

Performance Indicator	ANT 205
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2	63.52%
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In this assessment, students did not meet the standard of success (75% scoring a 75% or higher), with the rate of success at 63.52%. While this course continues to provide a solid foundation in archaeology for students, the assessment process brought to light the difficulty of trying to find a balance between low-level objectives (like identifying species, places, etc...) and high-level objectives, such as critiquing theory and aspects of the archaeological record. While students can identify what a theory is and who proposed it, they are far less capable of identifying the assumptions and limitations of these theories. Students seem to either accept these theories entirely with little or no critique, or reject them entirely. Adjustment to course materials and lectures to focus on these critical aspects in the future is needed to assist in meeting this performance indicator.

PI. 3: Recognize that human behavior is a function of intersectionality at both the micro and macro level.

Performance Indicator	PLS 112	PSY 220	PSY 296	SOC 100
3	85.59%	94.37%	33%	94.5%

PLS 112, PSY 220 and SOC 100 all exceeded the standard of success set for each course. It is notable though that PSY 296 failed to meet the standard with a fairly low rate of 33% meeting the standard. It should be noted that the department has added prerequisites to this course with the aim of at least in part alleviating these lower success rates for PI 3. It was also noted during the assessment that the questions used may be ambiguous and in need of further clarity to help guide students. This is an area to watch for future improvements based on these changes in the next report.

Division 2: Social Sciences

Performance Indicators:

4. Recognize the forms, functions and purposes of government.
5. Recognize the differences between peoples and cultures in past environments, and how and why those cultures changed over time.

Courses Assessed

Course Number	Course Name
ANT 205	Introduction to Archaeology
ECO 110	Introduction to Economics
ECO 211	Principles of Economics I
HST 108	The Ancient and Medieval World
HST 201	United States History to 1877
HST 215	History of US Foreign Relations
PLS 112	Political Science
SOC 100	Principles of Sociology

Population & Sampling

The population for the Social Science Division general education is all students enrolled in the following courses:

ANT 201, 202, 205, 265 GEO 101 ECO 110, 211, 222, 280 HST 108, 109, 121, 122, 123, 150, 200, 201, 202, 210, 215, 216, 220, 225, 230, 235, 240, 251, 255, 260, 270	PLS 112, 150, 211, 220, 241, 250, 260, 290 PSY 251 SOC 100, 205, 206, 207, 216
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In this general education assessment of the Social Sciences Division outcome, all assessment data submitted since the Fall 2023 report is included. As has been mentioned multiple times in this report already, it is an ongoing goal of the committee to assess all general education course offered for each PI. We are making progress, but this outcome could also benefit from data from more courses overall. The table below summarizes the number of students who were assessed by course and the semester that the assessment was completed. For each course a random stratified sample was taken from available data. For this assessment report, the total number of students enrolled in the courses assessed was 1398 and the total number of students assessed was 717 or 51.3% of all students enrolled.

Course	Performance Indicators	Number of Students Assessed	Number of Students Enrolled	Assessment Semester(s)
ANT 205: Introduction to Archaeology	5	83	116	Summer 2023
ECO 110: Introduction to Economics	4	42	35	Summer 2023
ECO 211: Principles of Economics I	4	148	220	Summer 2023
HST 108: The Ancient and Medieval World	5	98	111	Summer 2023
HST 215: History of US Foreign Relations	5	7	9	Summer 2023
PLS 112: Political Science	4	207	479	Summer 2023
SOC 100: Principles of Sociology	5	132	428	Summer 2023
		Total # Assessed= 717	Total # Enrolled= 1398	

The two Social Science Performance Indicators (PI), PI 4 and PI 5 were assessed using a variety of embedded assessment tools within each course assessed. The chart below gives an overview of each course assessment tool used, the course Student Learning Outcome (SLO) that is mapped to the general education PIs and the standard of success required.

Course	Assessment Tools	Course Student Learning Outcome (SLO)	Standard of Success
ANT 205	Departmental Exam	1, 2, 3	75% of students will average 75% or higher on assessment
ECO 110	Exam Questions	1, 2, 3	70% of students will average 70% or higher on assessment
ECO 211	Exam Questions	1, 2, 3	70% of students will average 70% or higher on assessment
HST 108	Departmental Exam	2	70% of students will score 70% or higher on assessment.
HST 201	Exam Questions	2, 3	70% of students will score 75% or higher on assessment.
HST 215	Departmental Exam	1, 2, 3	80% of students will score a 70% or higher on assessment.
PLS 112	Departmental Exam	1, 2, 3, 4, 5	70% of students will score 70% or higher on assessment
SOC 100	Course Assignment and Exam Questions	3	70% of the students will score 70% or higher on the assessment.

Results and Recommendations

The assessment findings for each Performance Indicator (PI) are summarized below. Because of the variety of courses and disciplines, various types of artifacts were used including departmental exams and course assignments. The standard of success varied by course. For PI 2, the standard of success was not met, but in both PI 1 and in PI 2, the standard was either met or exceeded. The results for each Performance Indicator are shown below.

PI 4: Recognize the forms, functions and purposes of government.

Performance Indicator	ECO110	ECO 211	PLS 112	SOC 100
4	51.7%	54.2%	85.6%	94.5%

When overall scores are aggregated, the standard of success was met for PI 4, but in both ECO 110 and ECO 211, the standard of success was not met. In ECO 110 it was noted that students especially struggled with understanding major macroeconomic variables, particularly the manner in which they may be impacted by government policies. Additional emphasis will be placed on these microeconomic topics in order to improve student success. In ECO 211 Faculty will be encouraged to add additional homework/practice activities to help students cement their knowledge of economics concepts particularly as it relates to specific governmental policies and the fulfillment of this PI.

Both PLS 112 and SOC exceeded standard of success set for the courses as it relates to for PI 4, with 85.6% meeting or exceeding the standard in PLS 112 and 94.5% in SOC 100. Based on these assignments results, no changes are needed. In the future, more representation for other courses will be needed to assure we are meeting PI 4, but currently the aggregated data suggests that WCC Social Science courses are doing great work meeting this outcome.

PI. 5: Recognize the differences between peoples and cultures in past environments, and how and why those cultures changed over time.

Performance Indicator	ANT 205	HST 108	HST 201	HST 215	SOC 100
5	63.5%	91%	83%	85.7%	94.5%

In this assessment of PI 5, ANT 205 did not meet the standard of success (75% scoring a 75% or higher), with the rate of success at 63.5%. While this course continues to provide a solid foundation in archaeology for students, the assessment process brought to light the difficulty of

trying to find a balance between low-level objectives (like identifying species, places, etc...) and high-level objectives, such as critiquing theory and aspects of the archaeological record.

On the other hand, HST 108, HST 201, HST 215, and SOC 100 all exceeded the standard of success and the data gives substantive evidence that WCC Social Science courses continue to successfully meet the PI 5 and the Social Science Division General Education Outcomes in general.

HSS Conclusion

The data presented in this report was collected between Spring/Summer 2023 and Winter 2025 and reflects a broad range of assessment activities across the General Education curriculum at Washtenaw Community College. Overall, the results demonstrate that student performance remains strong across the assessed outcomes and performance indicators. In nearly all areas, students met or exceeded the established standards of success, indicating that WCC's general education curriculum continues to effectively support student learning and academic development.

A particular strength of the assessment process at WCC is the variety of assessment methods used to measure student achievement. Faculty utilized diverse tools—including essays, presentations, speeches, examinations, laboratory reports, portfolios, and classroom-based activities—to ensure that assessment practices align appropriately with both course content and the intended performance indicators. This variety helps provide a more accurate and meaningful picture of student learning across disciplines.

The continued integration of assessment tools within the College's learning management system has also improved the consistency and efficiency of data collection, particularly across multiple course sections and instructional modalities. While some classroom-based or manually collected assessments continue to present logistical challenges, the College has made measurable progress in improving participation, organization, and reporting processes over successive assessment cycles.

Importantly, this report reflects ongoing institutional growth in assessment culture and faculty engagement. Compared with previous assessment cycles, this report includes a broader range of courses and disciplines, including several courses that had not previously participated in General Education Assessment. Faculty collaboration and participation continue to increase, and the work of the General Education Assessment Committee has helped strengthen alignment between course outcomes, performance indicators, assessment tools, and reporting practices.

Although the overall findings are highly positive, the assessment results also identified several areas for continued improvement. In some disciplines, faculty noted opportunities to refine assessment instruments, clarify assessment questions, expand course representation, and strengthen instruction in targeted skill areas. These findings demonstrate that the assessment process is serving its intended purpose—not only documenting student achievement, but also guiding meaningful reflection and continuous improvement.

Overall, the evidence gathered through this assessment cycle demonstrates that WCC students are developing the knowledge, skills, and competencies outlined in the College's General Education Outcomes. The results indicate that students are well prepared to continue their education, enter the workforce, and engage thoughtfully and effectively in their personal, professional, and civic lives.

MATH, SCIENCE, AND ENGINEERING TECHNOLOGY (MSE) DIVISION

Population, Sample and Data Collection

The MSE division consists of the Chemistry, Life Sciences, Math & Engineering Studies, and Physical Sciences departments. Courses from these four departments were assessed between Fall 2023 and Spring/Summer 2025, and so were selected for general education assessment.

Natural Sciences

Natural Sciences Performance Indicators:

1. Recognize the principal concepts within a natural science discipline.
2. Use the scientific method to propose and test hypotheses through the interpretation of experimental data.
3. Apply the concepts of a natural science to interpret observations and make inferences based on experimental results.
4. Recognize the impact and importance of sustainability in a field of science

Courses Assessed

Course	Performance Indicator
PHY 105 Conceptual Physics	1, 2
CEM 111 General Chemistry I	1, 2
BIO 101 Concepts of Biology	1, 3
CEM 140 Organic Biochemistry	3
ENV 105 Introduction to Environment and Society	4

Population and Sampling

The population for Natural Science general education assessment is all students in the following courses:

AST 111 General Astronomy	CEM 111 General Chemistry I
BIO 101 Concepts of Biology	CEM 122 General Chemistry II
BIO 102 Human Biology	CEM 140 Organic Biochemistry
BIO 104 Biology of Exercise	CEM 211 Organic Chemistry I
BIO 107 Introduction to Field Biology	CEM 222 Organic Chemistry II
BIO 109 Essentials of Human Anatomy	ENV 101 Environmental Science I
BIO 110 Introduction to Exercise Science	ENV 105 Introduction to Environment and Society
BIO 111 Anatomy and Physiology-Normal Structure and function	GLG 100 Introduction to Earth Science
BIO 161 General Biology I Ecology and Evolution	GLG 103 Field Geology
BIO 162 General Biology II Cells and Molecules	GLG 104 Weather

BIO 208 Genetics	GLG 110 Geology of the National Parks and Monuments
BIO 210 Physiology of Exercise	GLG 114 Physical Geology
BIO 212 Pathophysiology: Alterations in Structure and Function	GLG 125 The Earth Through Time
BIO 215 Cell and Molecular Biology	GLG 276 Principles of Geographic Information Systems
BIO 225 Tests and Measurements in Exercise Science	PHY 105 Conceptual Physics
BIO 227 Biology of Animals	PHY 111 General Physics I
BIO 237 Microbiology	PHY 122 General Physics II
CEM 101 Introductory Chemistry	PHY 211 Analytical Physics I
CEM 105 Fundamentals of Chemistry	PHY 222 Analytical Physics II

For this assessment, a representative sample of courses were selected from the course assessed table above. All students in all sections of these courses during the semesters shown below were included in the assessment, except where data were not available (for example, students withdrew from the course and did not participate in the exam, lab, or activity etc.) The table below summarizes the number of students who were assessed by course and the semester that data were collected.

Course	Number of Students Assessed	Data Collection Semester
CEM 111 General Chemistry I	266	Winter 2024 & Fall 2024
PHY 105 Conceptual Physics	56	Fall 2023 & Winter 2023
CEM 140 Organic Biochemistry	23	Fall 2024
ENV 105 Introduction to Environment and Society	143	Fall 2023
BIO 101 Concepts of Biology	198	Winter 2023

Results and Plan of Action

The four Natural Science Performance Indicators (PI) were assessed using embedded assessments from a variety of the natural sciences courses: Biology, Chemistry, Physics, and Environmental Science. The assessment findings are summarized below.

PI	Type of Assessment Used	Standard of Success	Assessment Results	Was Standard of Success Achieved?
1. Recognize the principal concepts within a natural science discipline (SLO1)	CEM 111 Departmental Final Exam	75% of students will score 70% or higher.	36.84% of students scored 70% or higher	No
1. Recognize the principal concepts within a natural science discipline (SLO1)	PHY 105 Departmental Exams	75% of students will score at least 75%	97% of students scored 75% or higher	Yes
1. Recognize the principal concepts within a natural science discipline (SLO2)	BIO 101 Departmental Exams	75% of students will score at least 75%	75% of students scored 75% or higher	Yes
2. Use the scientific method to propose and test hypotheses through the interpretation of experimental data (SLO3)	CEM 111 General Chemistry I Lab reports from the week 13	75% of students will score 70% or higher.	84.9% of students scored 70% or higher.	Yes
2. Use the scientific method to propose and test hypotheses through the interpretation of experimental data (SLO1)	PHY 105 Lab exercises	75% of students will score at least 75%	91% of students scored 75% or higher	Yes

3. Apply the concepts of a natural science to interpret observations and make inferences based on experimental results (SLO4)	CEM 140 Organic Biochemistry	70% of the students will score a 6 of 9 (67%) or higher	All students (100%) scored 6 or above	Yes
3. Apply the concepts of a natural science to interpret observations and make inferences based on experimental results (SLO5)	BIO 101 Concepts of Biology	75% of students will score 75% or higher.	76% of students scored 75% or higher.	Yes
4. Recognize the impact and importance of sustainability in a field of science (SLO2)	ENV 105, Departmental Exams	70% of students will score 70% or higher.	86% of students scored 70% or higher.	Yes

PI #1

We used CEM 111 (General Chemistry I), PHY 105, and BIO 101 in regard to this concern.

For CEM 111: Students unfortunately did not meet the standard of success. Two factors may have led to the standard of success not being met. First, many of the students who fail, or withdraw, from the course do take the final assessment exam on the last day of the class. Instructors often encourage these students to take the final exam if they are planning on retaking the course to aid them in their course retake. As such, these students usually score at a much lower percentage compared to the rest of the students. Second, this outcome was assessed by Part A of the departmental Final Exam. Part A includes subcategories. Students met the 70% threshold for achievement in some of these subcategories, such as Dimensional Analysis, Stoichiometry, Ideal Gas Law, and Thermodynamics. However, Students did not meet the 70% threshold for other concepts, such as naming, symbols, and three-dimensional structures. These categories mainly require memorization of atomic names/symbols, periodic trends, and theories of bonding as they relate to structure. To improve this learning outcome, instructors may spent additional class time reviewing the fundamental concepts for each category.

For PHY 105: Student performance met the standard of success. Students were given multiple-choice questions designed to assess their understanding of key concepts in mechanics; states of matter, heat, and waves; as well as electricity, magnetism, and light. The number of students who met the standard of success for each unit of the test was as follows: Mechanics: 55/56 students (98%); States of Matter, Heat, and Waves: 55/56 students (98%); Electricity, Magnetism, and Light: 55/56 students (98%). All areas demonstrated high performance and met the standard for success. Based on these results, no course changes are recommended.

For BIO 101: The students met the standard of success. Students were given five multiple-choice questions on the departmental final exam to assess their understanding of concepts in cell metabolism, photosynthesis, genetics, and reproduction. Overall, the standard of success was met at 75%. This outcome was the lowest average in the newest course assessment and suggests that students struggle with the “chemistry” aspects of biology. One question that lowered the average was Question 3, which addressed the definition of a gene; the average score for this question was 57%. The concepts of genes and protein synthesis are two areas that students find particularly challenging. A suggested plan is to incorporate different analogies related to genes and protein synthesis, which may help improve understanding.

PI#2

For CEM 111: The standard of success was met for this PI. The lab chosen to assess this PI was toward the end of the semester, from the week 13. As such, students were trained and instructed during the entire semester on how to properly write up a lab report—including summarizing the procedure, collecting and recording data, performing the calculations, and correctly summarizing their experimental results.

For PHY 105: The standard of success was met for this PI, with 91% of assessed students scoring 75% or higher on the lab exercises. A review of data across sections shows that students' performance was consistent regardless of format.

PI#3

For CEM140: Laboratory reports were used to assess this PI. The lab reports were assessed based on a rubric created by the lead instructor of the course, and it was used to score the lab reports for correct format, data collections, results, calculations and writing a conclusion based on the data/ results of the lab experiment. All students scored 9 or higher on a 10-point rubric so the standard was met for this PI. Since students did well here, no changes were suggested and instructors will continue to emphasize proper lab report.

For BIO 101: A scientific method paper assessed this PI using a departmentally developed rubric. The standard of success was 76%. Students found scientific writing challenging. To improve this outcome, students will spend more lab time discussing scientific writing and analyzing sample papers.

PI#4

For ENV 105: Departmental exams (using multiple-choice, short-answer, and essay questions) were used to assess this PI. Specifically, students were required to analyze and interpret data using appropriate environmental science principles and concepts. Students met the standard of success, as 86% of students (123) scored 70% or higher on questions related to the environment and sustainability. This indicates that students are clearly learning the concepts and terms covered in the course. However, there were two areas in which students struggled. The first was determining the maximum sustainable yield, and the second was analyzing trends in bottled water use in poorer. To improve this outcome, the lead instructor plans to communicate the results of this PI with other ENV 105 instructors to provide more explicit instruction around this topic.

Conclusion

The data collected in this report was collected over the years Fall 2023 – Spring Summer 2025. As shown by the results, student performance is, in general, strong in all areas.

Our assessments use a wide variety of methods that appropriately fit the course and PI. They range from papers and performances to tests and laboratory reports and therefore reflect the diversity of courses as well as the general education outcomes we aim to provide to students. However, we faced a challenge when selecting courses to be used in PI4 because the language is too restrictive and appears to apply only to an environmental science course. As such, we suggest revising the language of PI4 to broaden the indicator to include elements such as green chemistry and safety considerations in laboratory settings.

Current PI4: Recognize the impact and importance of sustainability in a field of science.

Potential Revision: Recognize the relevance of sustainability and green chemistry across scientific disciplines.

Mathematics Outcome

Recognize the applications and perform computations using the concepts of college-level mathematics.

Performance Indicators

1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables, and/or schematics.
2. Represent mathematical information symbolically, visually, numerically, and/or verbally.
3. Employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems.

Courses Assessed

Course	Performance Indicator
MTH 125 Everyday College Math	1, 2, 3
MTH 178 General Trigonometry	1, 2, 3
MTH 192 Calculus II	1, 2, 3

Population & Sampling

The population for Mathematics general education assessment is all students in the following courses:

MTH 125 Everyday College Math	MTH 191 Calculus I
MTH 160 Basic Statistics	MTH 192 Calculus II
MTH 176 College Algebra	MTH 293 Calculus III
MTH 178 General Trigonometry	MTH 197 Linear Algebra
MTH 180 Precalculus	MTH 295 Differential Equations

Stratified samples of the courses MTH 125 (Everyday College Math), MTH 178 (General Trigonometry), and MTH 192 (Calculus II) were chosen. MTH 125 fulfills the General Education math requirement and is one of the terminal classes for non-STEM track students. MTH 178 is a small mid-level course that has not been recently included in General Education assessment reports. MTH 192 is representative of the upper-level courses offered at WCC. Although a previous course assessment for MTH 192 was

used in the previous General Education assessment report, it was the only upper-level course that had been assessed in the two-year window required for inclusion in this report. These 3 courses give a representative sample of the population.

The math department uses common final exams for all course assessments, and these common finals were also used for the general education assessment. All sections of each representative course are given the same final exam.

Course	Number of Students Assessed	Assessment Report Submitted
MTH 125 Everyday College Mathematics	223	Spring/Summer 2025
MTH 178 General Trigonometry	34	Fall 2023
MTH 192 Calculus II	153	Spring/Summer 2025

Results and Plan of Action

The common finals are written with the Student Learning Outcomes (S.L.O.) measured in generic course assessment for a single class in mind, not with the Outcomes measured by the General Education assessment across multiple classes. Due to this, the standard of “success” for a given outcome/performance indicator is different from class to class.

In MTH 125, problems are graded on a 4-point scale, and the standard of success is that 70% of the students will have an average of 75% or higher on questions related to that performance indicator.

In MTH 178, problems are graded on a 4-point scale. The standard of success is that 70% of the students will have an average of 75% or higher on questions related to that performance indicator.

In MTH 192, problems are graded on a 4-point scale, and the standard of success is that 70% of the students will have an average of 70% or higher on questions related to that performance indicator.

	PI 1 Interpret and draw inferences from mathematical models such as formulas, graphs, tables, and/or schematics	PI 2 Represent mathematical information symbolically, visually, numerically, and/or verbally	PI 3 Employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems
MTH 125	SLO 5 Calculate and interpret statistics,	SLO 2 Calculate operations on sets	SLO 1 Perform consumer finance calculations

	including measures of center and spread, and make predictions based on the normal curve.	and use Venn diagrams to answer questions involving “and”, “or” and “not”.	for interest, loans, annuities, and mortgages.
MTH 178	SLO 2 Interpret trigonometric graphs and graph trigonometric functions.	SLO 5 Solve problems involving radian measure.	SLO 4 Solve trigonometric equations.
MTH 192	SLO 1 Solve a variety of applied integration problems.	SLO 3 Determine convergence or divergence of an infinite series.	SLO 2 Evaluate limits of functions and sequences.

Aggregate Success Rates

Performance Indicator	MTH 125 Everyday College Math (% of students scoring over 75%)	Success Achieved	MTH 178 General Trigonometry (% of students scoring over 75%)	Success Achieved	MTH 192 Calculus II (% of students scoring over 70%)	Success Achieved
1	96%	Yes	94%	Yes	75%	Yes
2	87%	Yes	88%	Yes	63%	No
3	68%	No	79%	Yes	75%	Yes

MSE Conclusion

PI #1

Success was achieved in all 3 classes, showing that our students have solid utility in interpreting and drawing inferences from various mathematical models.

MTH 125: Students showed strength with finding statistics given data in context. They struggled with finding compound probabilities involving the normal curve.

MTH 178: Students were successful in graphing various trigonometric functions and identifying the key characteristics from both the graph and the formula.

MTH 192: Students do particularly well with Disk/Washer/Shell problems, which involve plenty of graphical reasoning. They are also capable with Integration by Parts, U-substitution, and Partial Fractions, which involve less visual reasoning and more formulaic manipulation. Students tend to struggle with Trigonometric substitution problems, which involve both visual reasoning and intensive formulaic manipulation, as well as background trigonometric knowledge from previous classes.

PI #2

Success was achieved in MTH 125 and 178, but not in MTH 192.

MTH 125 and 178: it was indicated that students showed good overall competency with these types of problems with no specific topics of weakness identified.

MTH 192: The chosen outcome deals with series convergence and divergence, which requires students to write a short proof. At this point in the math curriculum, students have likely been introduced to a few proofs in the lecture, but this is often the first time they are asked to write their own.

It was noted that students do particularly well with Root/Ratio Tests as well as the Alternating Series Test, but that they struggle with the Comparison Tests.

As these tests involve the crafting of a specifically organized set of paragraphs with calculations, they are not particularly well suited to online homework systems like MyOpenMath. The recommendation was made to MTH 192 instructors to include additional hand-written assignments to test these skills and give feedback.

PI #3

Success was achieved in MTH 178 and 192, but not in MTH125.

MTH 178 and 192: No specific sub-topics are identified as strengths or weaknesses. Students seem to be reasonably capable of employing arithmetic, algebra, geometry, and trigonometry to solve problems.

MTH 125: Students showed strength with problems involving finding interest rates given a principal and monthly payment plan and with problems involving finding the average daily balance on a credit card. Students struggled when asked to compare the difference between capitalizing and not capitalizing interest on a student loan.

It was also noted in the assessment report that the capitalized / not capitalized problems on the McGraw Hill homework system used in MTH 125 contained errors which may have led to student confusion. This issue has since been rectified with the publisher.

An intended change is to add supplemental videos and guided notes focusing on these topics, with special emphasis on when and when not to round on the capitalized interest problems.

Conclusion

The data collected in this report was collected over the years Summer 2023 – Summer 2025. As shown by the results, student performance is still generally strong across all areas.

Our assessments use a wide variety of methods that fit the course and PI properly. They range from papers, performances, tests, and laboratory reports and so really reflect the array of courses and the actual general education outcomes we want to offer to students.

Some assessments are embedded into the learning management system (LMS) we use at WCC, while others are paper tests, or in-class activities. The LMS-based assessments are easier to collect in a systematic way so all students in different sections are assessed. We're slowly improving in ensuring assessment tools are aligned with the General Education Performance Indicators, and are seeing improvements in the process of gathering data.

Overall WCC is doing a good job with general education, and faculty are more on-board with this process. Our students are well prepared to continue on in their education or to graduate their programs.