CAE

CLA+ Institution Assessment Results
Truman State University

Administration Period Fall 2023-Spring 2024

Contents

Summary

This report provides an analysis of your students' proficiency with critical thinking, problem-solving, and written communication skills. These are among the top skills employers seek in candidates and are predictive of positive academic and career outcomes.

This assessment will help you understand your students' current level of skill and areas in which they can improve.

In addition to your institution's data, we have compared your students' scores with our United States - CLA+ Sample.

You can use these data to:
- Build programs and provide instruction to help students develop their critical thinking, problem-solving, and written communication skills
- Provide additional supports to students who have greater opportunities for growth
- Help students set goals for growth in these essential skills
- Demonstrate student abilities to higher education and employers

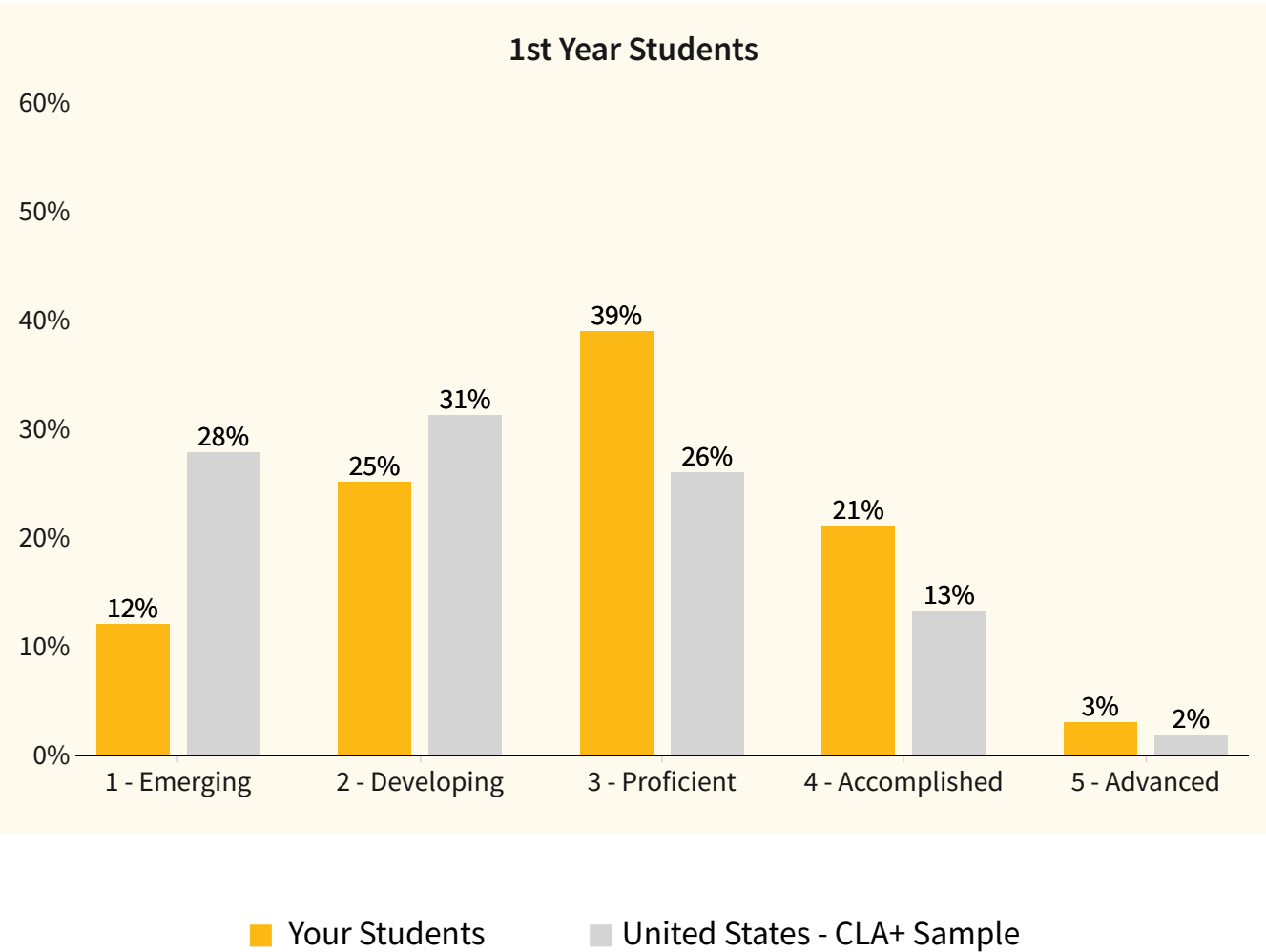|	Year	
	1	4
Student Count	100	146
Average Mastery Level	3 - Proficient	3 - Proficient
% Proficient or Above	63%	77%
Effect Size Analysis	-	0.44

Mastery Levels:

• 1st year students performed at a higher Mastery Level as our United States - CLA+ Sample.

• 4th year students performed at the same Mastery Level as our United States - CLA+ Sample.
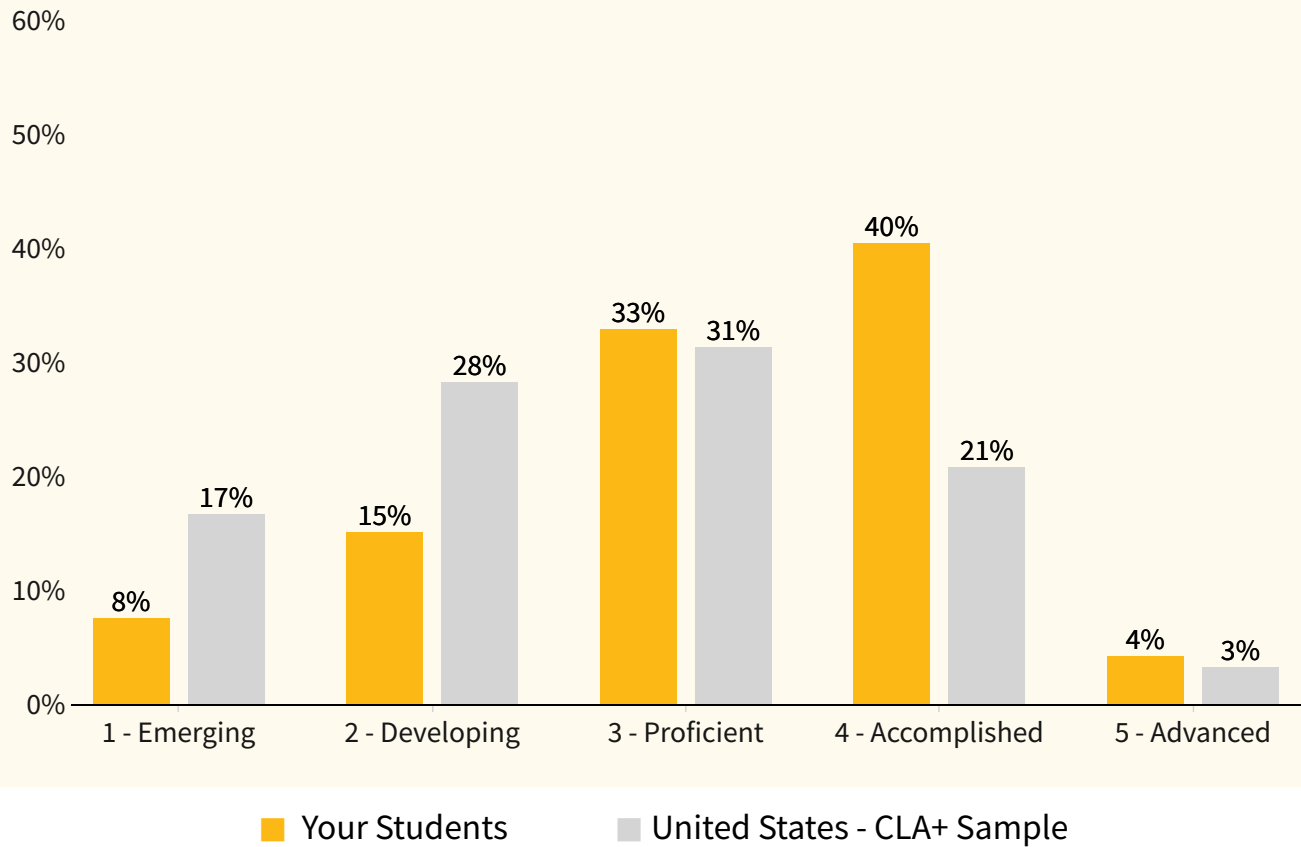
Mastery Level

Mastery Level is determined from CAE's standard setting study that defines the profiles for students at the Emerging, Developing, Proficient, Accomplished, and Advanced levels. The profiles are based on the critical thinking and written communication knowledge, skills, and abilities needed to perform at these levels on this assessment. For more information on mastery levels and our standard setting study, click here.

Students who do not meet the Mastery level of Proficient can often benefit from increased instruction in the skills and subskills measured on this assessment. See below for a breakdown of these scores for your institution.

	Year	
	1	4
Average Mastery Level	3 - Proficient	3 - Proficient
Average Mastery Level (Norm Sample)	2 - Developing	3 - Proficient
% Proficient or Above	63%	77%
% Proficient or Above (Norm Sample)	40%	55%

1st Year Students

Legend: Your Students | United States - CLA+ Sample

4th Year Students

	1 - Emerging	2 - Developing	3 - Proficient	4 - Accomplished	5 - Advanced
Your Students	8%	15%	33%	40%	4%
United States - CLA+ Sample	17%	28%	31%	21%	3%

Your Students   United States - CLA+ Sample

Total Average Score

The Total Average Score is an aggregate measure that summarizes a combination of analytical reasoning, problem-solving, and written communication skills. This score ranges from 400 to 1,600 with higher values indicating greater mastery of these skills.

The Total Average Score is comprised of students' scores for each section:
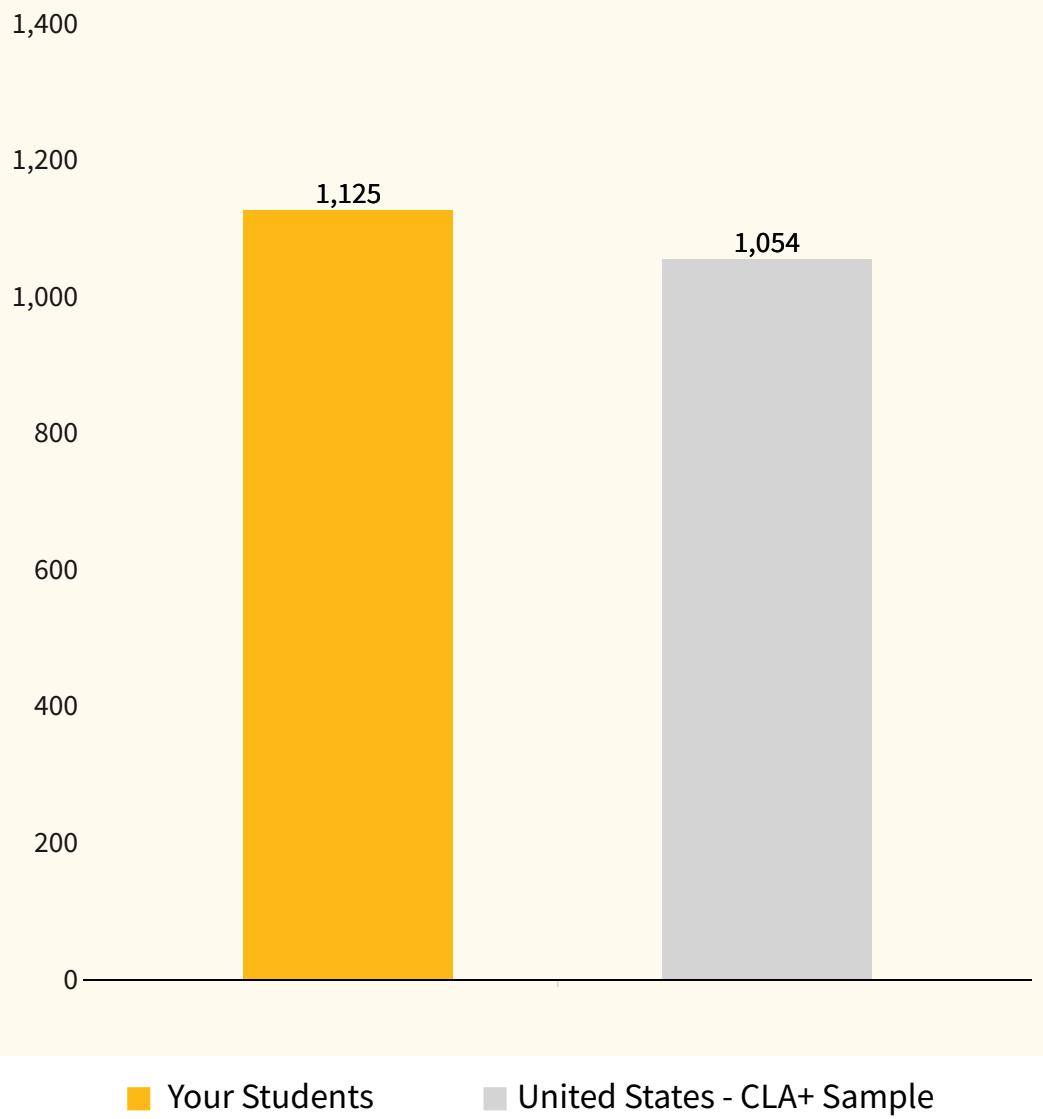
• Performance Task (PT): The average score students received on the 60-minute performance task

• Selected-Response (SR): The average score students received on the 30-minute selected response section

For more information on opportunities to improve your students' Total Score, please see the PT and SR subscore sections on the next page.
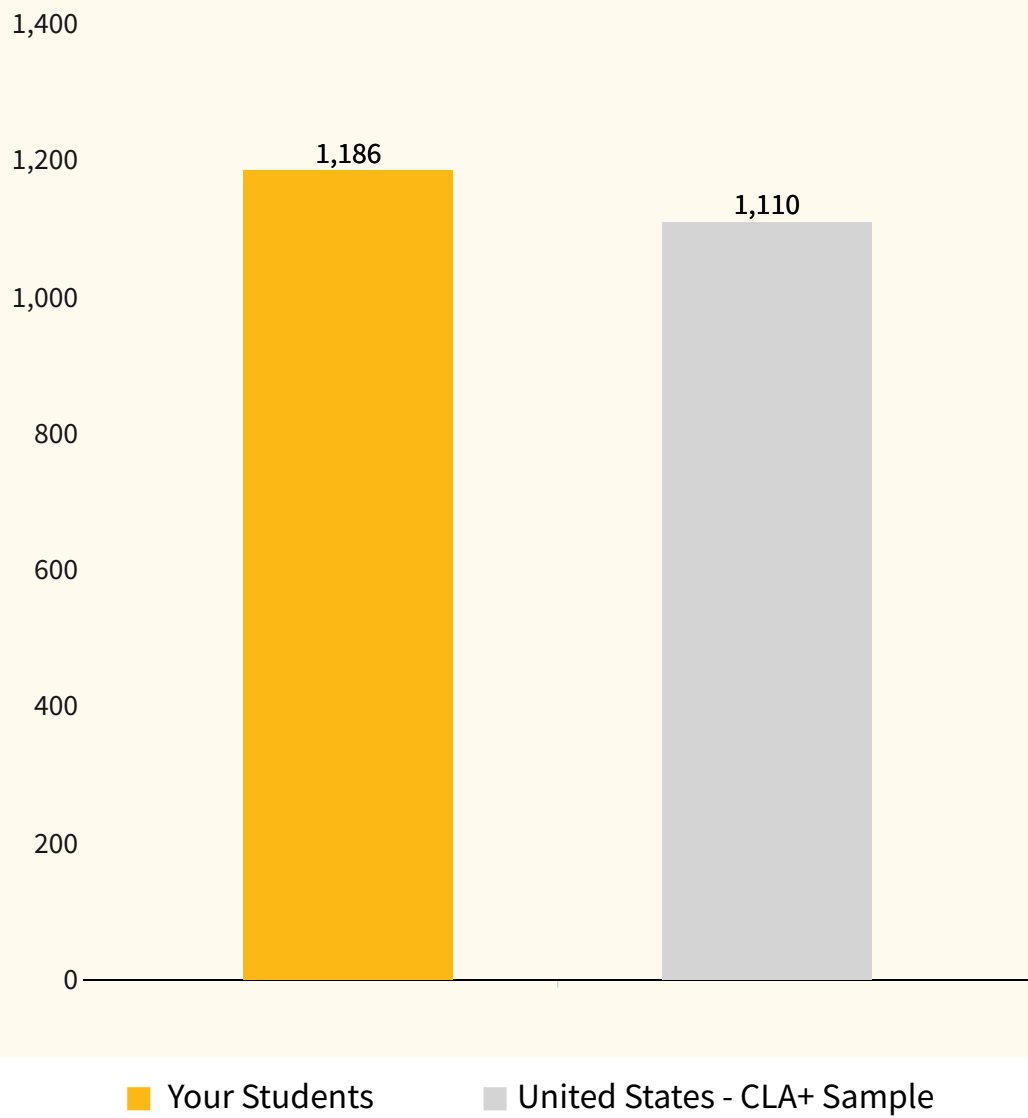
Percentile rankings allow for normative interpretations of your students' performance. These rankings indicate how well your institution performed relative to other institutions that administered the same CAE assessment. Percentile Ranking is the percentage of students who scored below your institution's score.

	Class	
	1	4
Total Average Score (Your Students)	1,125	1,186
Percentile Ranking (Your Students)	84%	87%
Total Average Score (Norm Sample)	1,054	1,110

1st Year Students

1,400	
1,200	
1,000	1,125 1,054
800	
600	
400	
200	
0	

■ Your Students   ■ United States - CLA+ Sample

4th Year Students

- Your Students
- United States - CLA+ Sample
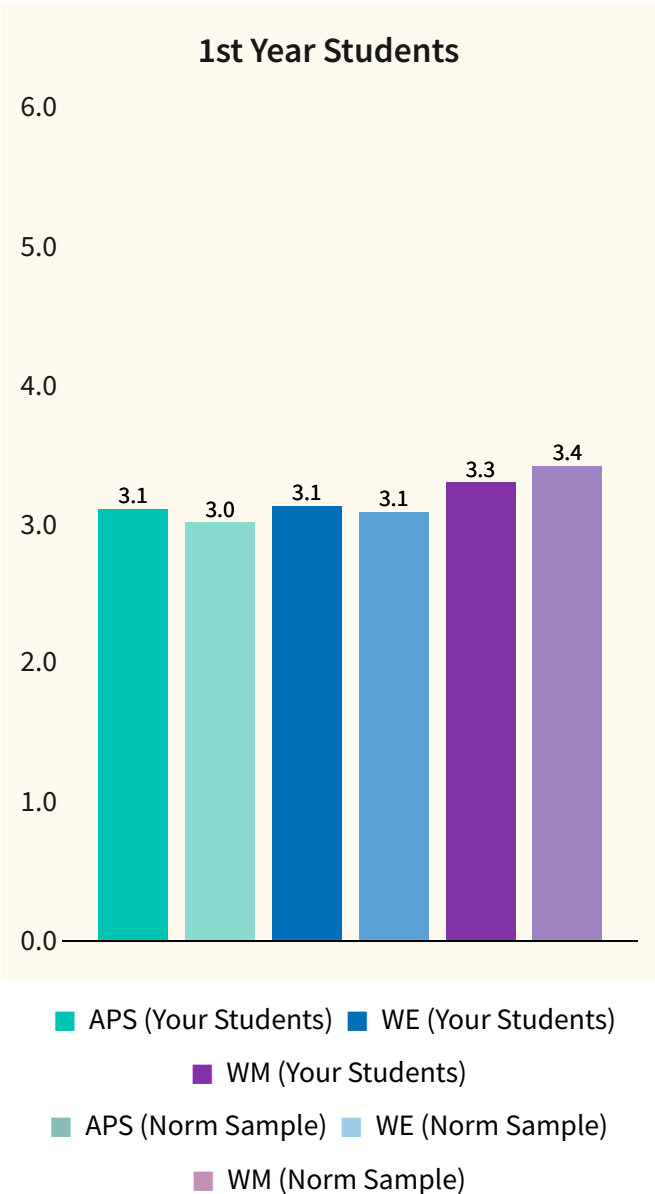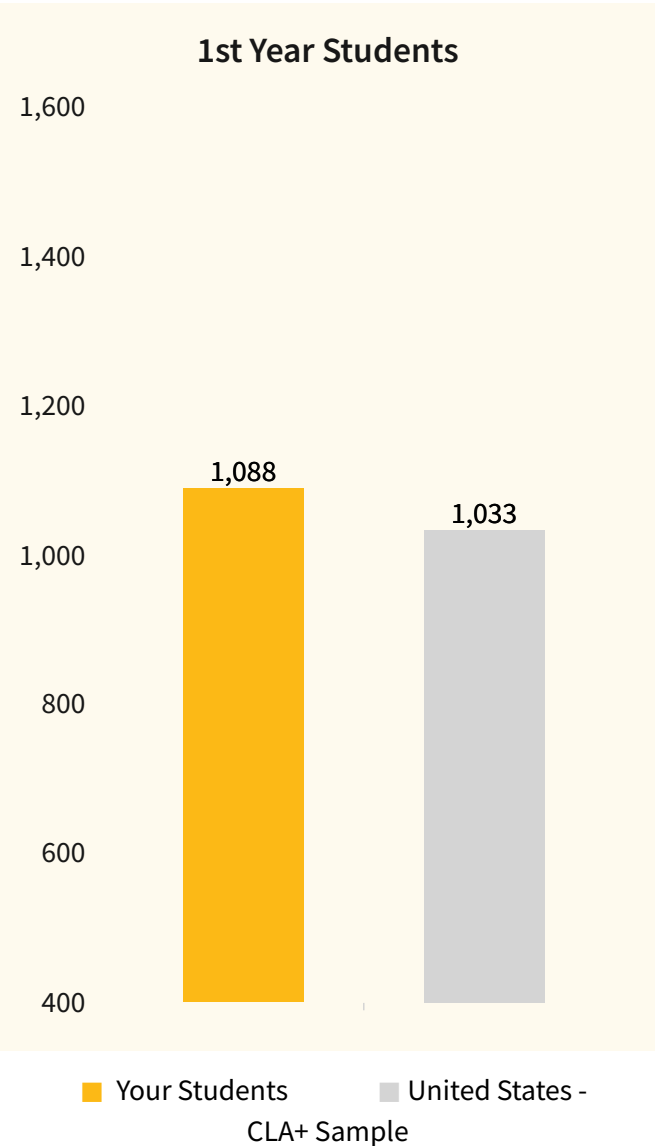
Performance Task (PT)

Students receive criterion-referenced subscores for each skill category based on key characteristics of their written responses.
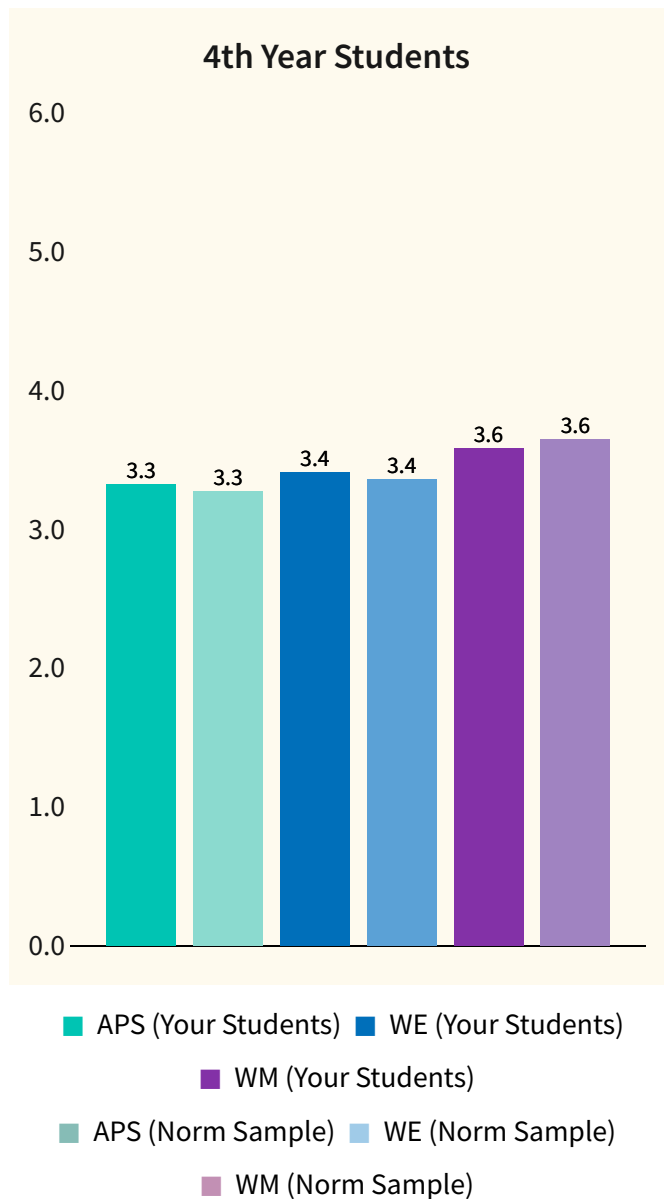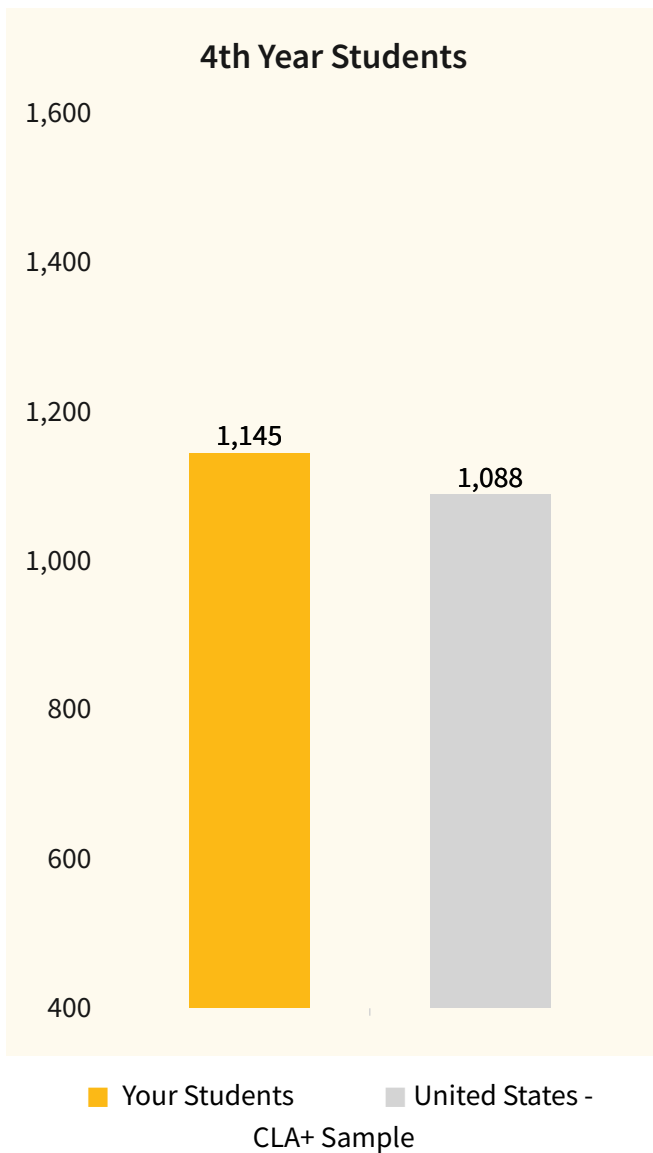
The charts below show your institution's average PT score compared to the sample and the breakdown of those scores by the subskills measured.

The Performance Task demonstrates students' proficiency with three critical thinking and written communication skills:

- **Analysis and Problem Solving (APS)**
- **Writing Effectiveness (WE)**
- **Writing Mechanics (WM)**

	Year	
	1	**4**
PT Average Score (Your Students)	1,088	1,145
PT Average Score (Norm Sample)	1,033	1,088
Percentile Ranking (Your Students)	79%	79%

1st Year Students

- 1,088 (Your Students)
- 1,033 (United States - CLA+ Sample)

1st Year Students

- APS (Your Students): 3.1
- APS (Norm Sample): 3.0
- WE (Your Students): 3.1
- WE (Norm Sample): 3.1
- WM (Your Students): 3.3
- WM (Norm Sample): 3.4

Legend:
- APS (Your Students)
- WE (Your Students)
- WM (Your Students)
- APS (Norm Sample)
- WE (Norm Sample)
- WM (Norm Sample)

4th Year Students

1,600	
1,400	
1,200	**1,145**
1,000	**1,088**
800	
600	
400	

■ Your Students   ■ United States - CLA+ Sample

4th Year Students

6.0	
5.0	
4.0	3.3 3.3 3.4 3.4 3.6 3.6
3.0	
2.0	
1.0	
0.0	

■ APS (Your Students) ■ WE (Your Students)
■ WM (Your Students)
■ APS (Norm Sample) ■ WE (Norm Sample)
■ WM (Norm Sample)

Student performance can be improved by addressing the skills described below and in the scoring rubric. We recommend embedding the following knowledge, skills, and abilities into classroom assignments. For more information on the scoring rubric, please **click here.**.

ABOUT THE SKILLS

Analysis and Problem Solving

- Identifying facts or ideas and interpreting them accurately
- Computing values that are pertinent to the task at hand
- Identifying information that is connected and conflicting
- Analyzing logic and identifying assumptions in arguments
- Evaluating the reliability of information
- Synthesizing information from multiple sources
- Deciding on a course of action to solve a problem
- Selecting the strongest data to support a decision
- Recognizing that a text may leave some matters uncertain

Writing Effectiveness

- Stating a position clearly
- Presenting evidence in support of an argument
- Elaborating on facts or ideas
- Constructing an organized and logically cohesive argument
- Including the use of effective transitions
- Considering counterarguments and addressing weaknesses in them

Writing Mechanics

- Using vocabulary correctly
- Demonstrating effective use of varied and complex vocabulary
- Constructing grammatically and syntactically correct sentences
- Varying structure and complexity of sentences
- Writing Effectiveness
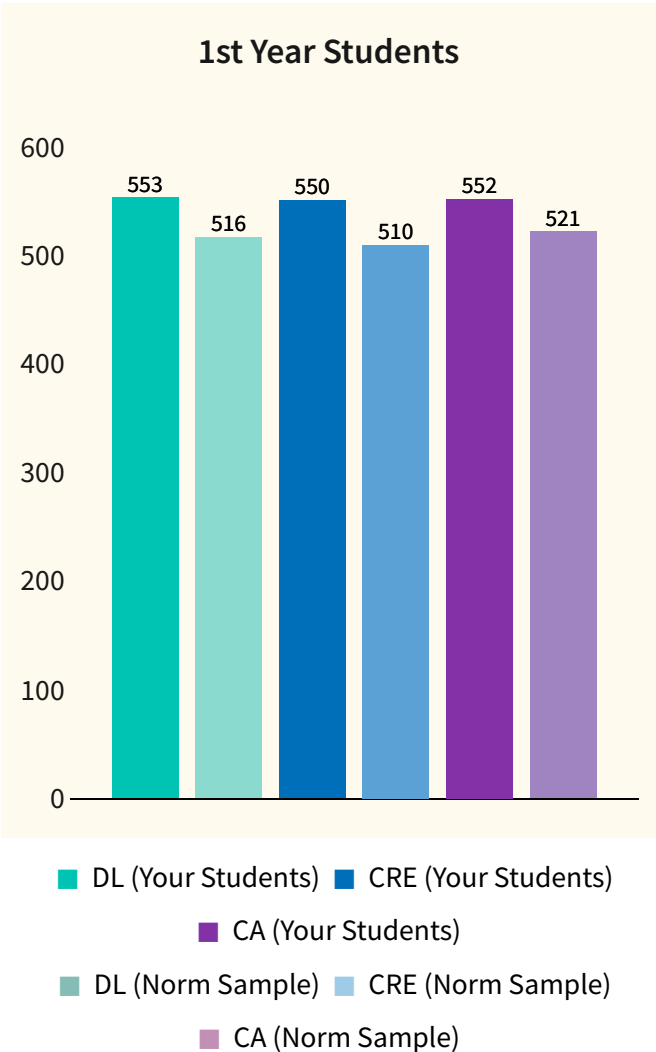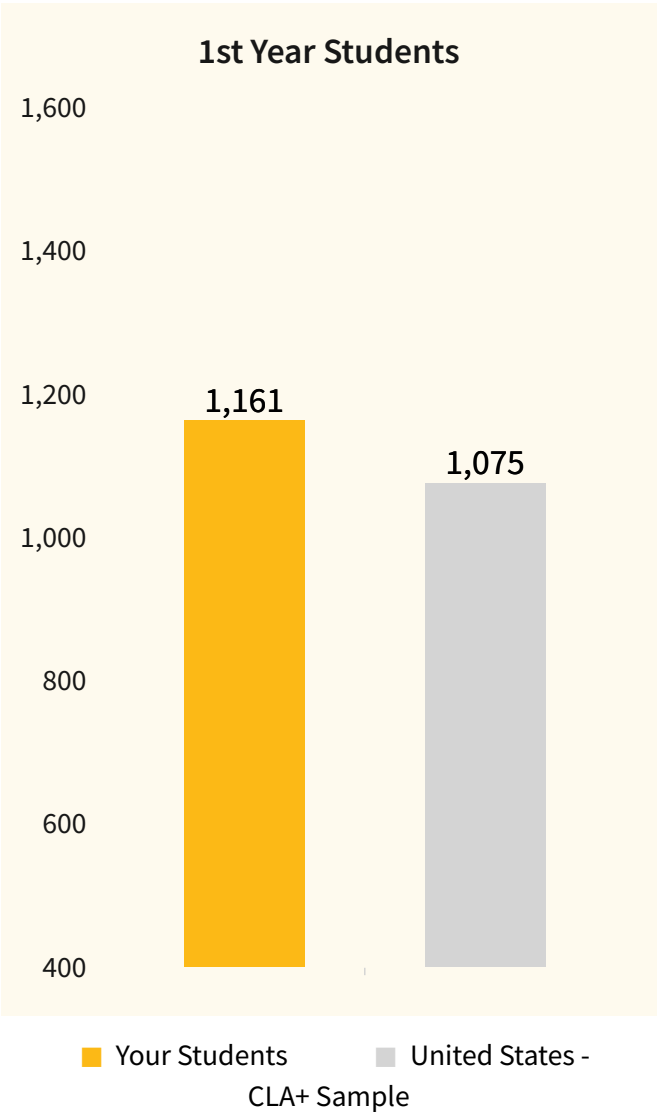
Selected Response (SR)

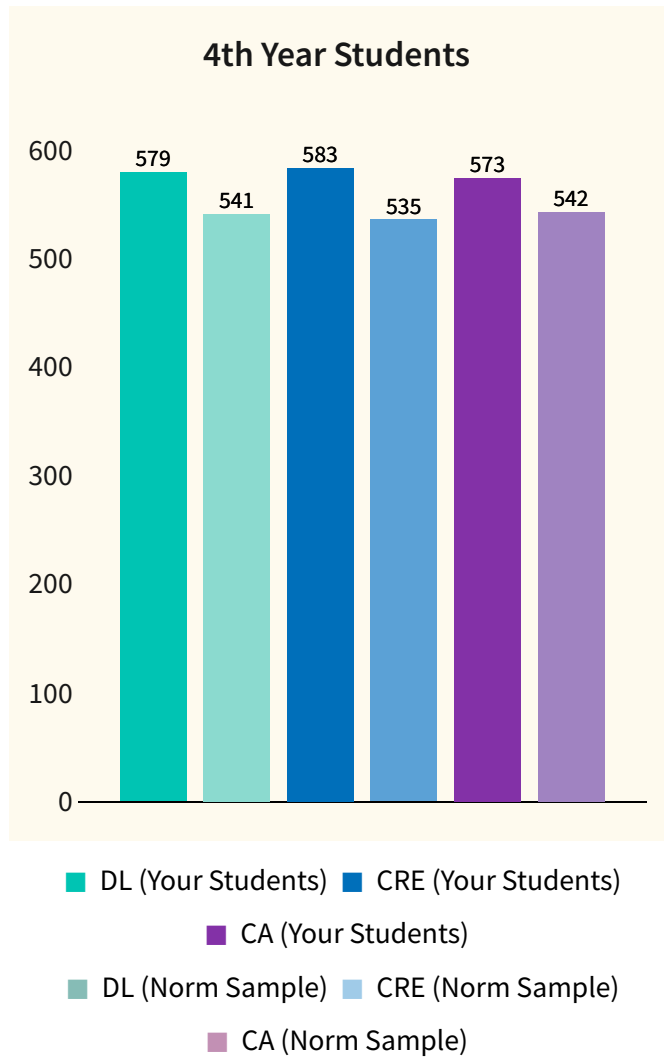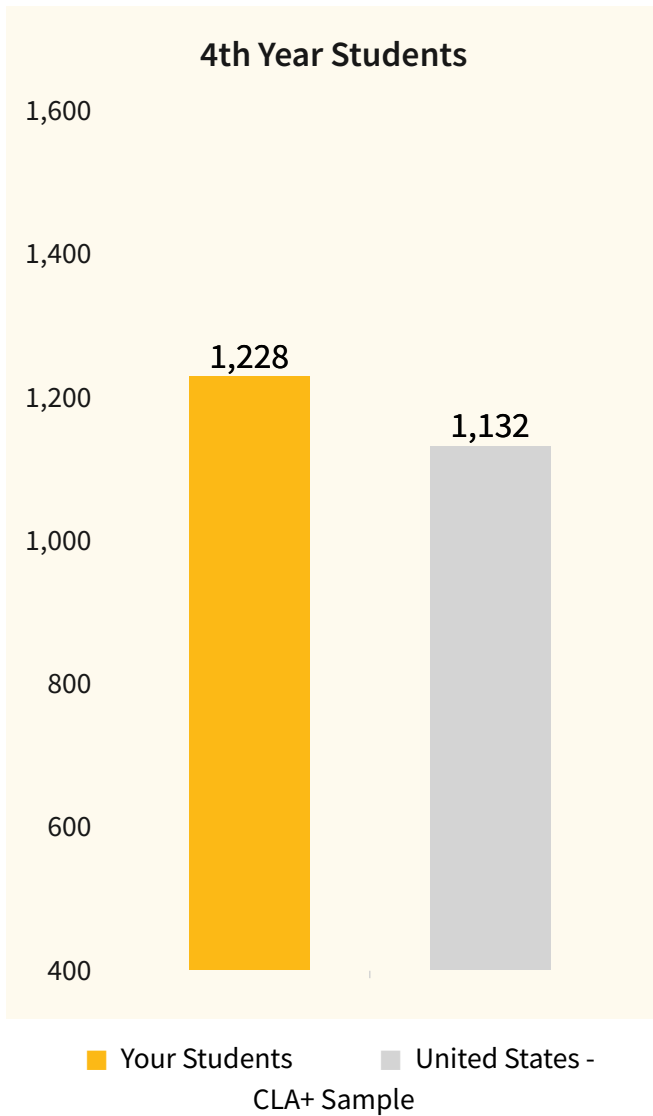Students receive subscores for each skill category based on the number of correct responses that they provide.

The charts below show your institution's average SR score compared to the United States - CLA+ Sample and the breakdown of those scores by the subskills measured.

The Selected Response questions demonstrates students' proficiency with three critical thinking and analytical reasoning skills:

• **Data Literacy (DL)**

• **Critical Reading and Evaluation (CRE)**

• **Critique an Argument (CA)**

	Year	
	1	4
SR Average Score (Your Students)	1,161	1,228
SR Average Score (Norm Sample)	1,075	1,132
Percentile Ranking (Your Students)	88%	91%

1st Year Students

1st Year Students

- ■ DL (Your Students)   ■ CRE (Your Students)
- ■ CA (Your Students)
- ■ DL (Norm Sample)   ■ CRE (Norm Sample)
- ■ CA (Norm Sample)

■ Your Students   ■ United States - CLA+ Sample

4th Year Students

Category	Value
Your Students	1,228
United States - CLA+ Sample	1,132

Legend:
- Your Students
- United States - CLA+ Sample

4th Year Students

Category	Value
DL (Your Students)	579
DL (Norm Sample)	541
CRE (Your Students)	583
CRE (Norm Sample)	535
CA (Your Students)	573
CA (Norm Sample)	542

Legend:
- DL (Your Students)
- CRE (Your Students)
- CA (Your Students)
- DL (Norm Sample)
- CRE (Norm Sample)
- CA (Norm Sample)

Student performance can be improved by addressing the skills described below and in the scoring rubric. We recommend embedding the following knowledge, skills, and abilities into classroom assignments. For more information on the scoring rubric, please **click here**.

ABOUT THE SKILLS

Data Literacy

- Making inferences and hypotheses based on given results
- Evaluating data collection methodology
- Identifying data that is connected and conflicting
- Detecting questionable assumptions
- Supporting or refuting a position with scientific evidence
- Drawing a conclusion
- Evaluating alternate conclusions
- Recognizing when additional research is required

Critical Reading and Evaluation

- Supporting or refuting a position
- Analyzing logic
- Identifying assumptions in arguments
- Evaluating the reliability of information
- Identifying connected and conflicting information
- Making justifiable inferences

Critique an Argument

- Detecting logical flaws and questionable assumptions
- Addressing information that could strengthen or weaken an argument
- Evaluating alternate conclusions

Growth Estimates

Effect size show a standardized estimate of the amount of growth shown between cohorts within your institution.

Unlike raw comparisons, effect size accounts for score variability. This means that if the students in one class have a particularly high degree of variability in their scores (i.e., their scores are more "spread out"), then the effect size estimate will adjust for this variation.

Effect sizes are reported in standard deviation which is a measure of the how close each score in a data set is to the mean, or average score.

Effect Size Analysis

A negative effect size indicates that the comparison students scored lower than the control group while a positive effect size indicates that the comparison students scored higher than the control group.

Effect Size versus 1st year students (control group)

	Year
	4
Total Score	0.44
Performance Task Score	0.38
Selected Response Score	0.37

Value-Added Analysis

A lower actual mean score indicates that the 4th year students did not perform as well as would have been expected given the demographic data. A higher actual mean score indicates that the 4th year students performed better than would have been expected given the demographic data.

Value-added scores estimate the level of growth relative to other institutions in CAE's U.S. norm sample. Specifically, value-added scores (reported in standard deviation units) indicate the degree to which the average 4th year student scores meet, exceed, or fall below expectations.

This analysis is based upon the following two factors: the level of education attained by the parents of the 4th year students and the mean scores of their 1st year student counterparts.

In other words, the value-added score compares actual 4th year student performance against expected 4th year student performance. This figure accounts for class demographics as well as 1st year student scores.

	Value-Added			
	Expected	Actual	Value-Added	Performance Level
Total Score	1186	1186	0	Near
Performance Task Score	1154	1145	-0.17	Near
Selected Response Score	1219	1228	0.21	Near

Next Steps

To discuss your results with CAE experts, please email support@cae.org to schedule a meeting.

CAE also offers professional development, critical thinking instruction, and custom assessments to help you improve your students' essential academic and career skills of critical thinking, problem solving and written communications.