

A Review of General Education Student Outcomes

CSC Current General Education Student Outcomes

Subject Area	Description	Assessment Measures
Mathematics	<p>Competencies measured by the ACT CAAP:</p> <ul style="list-style-type: none"> • Prealgebra. Items in this category involve operations with whole numbers, decimals, and fractions; order concepts; percentages; averages; exponents; scientific notation; and similar concepts. • Elementary Algebra. Items in this category involve basic operations with polynomials, setting up equations, and substituting values into algebraic expressions. They may also require the solution of linear equations in one variable and other related topics. • Intermediate Algebra. Items in this category assess students' understanding of exponents, rational expressions, and systems of linear equations. Other concepts such as the quadratic formula and absolute value inequalities may also be tested. • Coordinate Geometry. Knowledge and skills assessed in this category may include graphing in the standard coordinate plane or the real number line, graphing conics, linear equations in two variables, graphing systems of equations, and similar types of skills. • College Algebra. Items in this category are based on advanced algebra concepts including rational exponents, exponential and logarithmic functions, complex numbers, matrices, inverses of functions, and domains and ranges. • Trigonometry. Items in this category include concepts such as right triangle trigonometry, graphs of trigonometric functions, basic trigonometric identities, and trigonometric equations and inequalities 	<ul style="list-style-type: none"> • ACT CAAP for graduating students • Indirect evidence from CSC Alumni Survey and other program level surveys <p>Could also utilize final tests (if comprehensive) from college level mathematics courses.</p>
Reading	<p>Competencies measured by the ACT CAAP:</p> <ul style="list-style-type: none"> • Referring Skills. Test items that focus on referring skills require the student to derive meaning from text by identifying and interpreting specific information that is explicitly stated. Typical items of this type require students to recognize main ideas of paragraphs and passages, to identify important factual information, and to identify relationships among different components of textual information. • Reasoning Skills. Test items that focus on reasoning skills require students to determine implicit meanings and to go beyond the information that is explicitly presented. Typical items in this category assess students' ability to determine meaning from context, to infer main ideas and relationships, to generalize and apply information beyond the immediate context, to draw appropriate conclusions, and to make appropriate comparisons 	<ul style="list-style-type: none"> • ACT CAAP for graduating students • Indirect evidence from CSC Alumni Survey and other program level surveys
Science	<p>Competencies measured by the ACT CAAP:</p> <ul style="list-style-type: none"> • Data Representation. This format presents students with graphic and tabular material similar to that found in science journals and texts. The items associated with this format measure skills such as graph reading, interpretation of scatterplots, and interpretation of information presented in tables, diagrams, and figures. • Research Summaries. This format provides students with descriptions of one experiment or of several related experiments. The items focus on the design of experiments and the interpretation of experimental results. The stimulus and items are written expressly for the Science Test, and all relevant information is completely presented in the text of the stimulus or in the test questions. • Conflicting Viewpoints. This format presents students with several hypotheses or views that are mutually inconsistent owing to differing premises, incomplete or disputed data, or differing interpretations of data. The stimuli may include illustrative charts, graphs, tables, diagrams, or figures. Items in this format measure students' skills in understanding, analyzing, and comparing alternative viewpoints or hypotheses. 	<ul style="list-style-type: none"> • ACT CAAP for graduating students • Indirect evidence from CSC Alumni Survey and other program level surveys

<p>Writing</p>	<p>Competencies measured by the ACT CAAP: Usage/Mechanics:</p> <ul style="list-style-type: none"> • Punctuation. Use and placement of commas, colons, semicolons, dashes, parentheses, apostrophes, and quotation, question, and exclamation marks. • Grammar. Adjectives and adverbs, conjunctions, and agreement between subject and verb and between pronouns and their antecedents. • Sentence structure. Relationships between/among clauses, placement of modifiers, and shifts in construction. • Rhetorical Skills. Items that measure rhetorical skills may refer to an underlined portion of the text or may ask a question about a section of the passage or about the passage as a whole. The student must decide which alternative response is most appropriate in a given rhetorical situation. • Organization. Organization of ideas and relevance of statements in context (order, coherence, unity). • Strategy. Appropriateness of expression in relation to audience and purpose, strengthening of writing with appropriate supporting material, and effective choice of statements of theme and purpose. • Style. Precision and appropriateness in the choice of words and images, rhetorically effective management of sentence elements, avoidance of ambiguous pronoun references, and economy in writing. <p>Essay:</p> <ul style="list-style-type: none"> • Formulating an assertion about a given issue • Supporting that assertion with evidence appropriate to the issue, position taken, and a given audience • Organizing and connecting major ideas • Expressing those ideas in clear, effective language 	<ul style="list-style-type: none"> • ACT CAAP for graduating students • Indirect evidence from CSC Alumni Survey and other program level surveys <p>Could also utilize final essays in Comp II.</p>
<p>Citizenship</p>	<ul style="list-style-type: none"> • Democratic Values <ul style="list-style-type: none"> ○ Prepared citizens are knowledgeable about and are committed to the values inherent in the US Constitution and Bill of Rights: justice, freedom, equality, diversity, authority, privacy, due process, property, participation, truth, patriotism, human rights, rule of law, tolerance, mutual assistance, personal and civic responsibility, self-restraint and self-respect. ○ The Common Good ○ Citizens, in order to be effective, need to act from knowledge of the common good; that is, they need to be willing to deliberate about the nature of the public good and how to achieve it. They also need to possess compassion, ethical commitment, social responsibility, and a sense of interdependence among people and between people and their environment. They need to express this commitment to the common good through voting, volunteerism, serving on juries, petitioning the government for change, etc. • Knowledge <ul style="list-style-type: none"> ○ Effective civic education results in knowledge and comprehension of our nation's founding documents, the structure of government, the political process, and the global context in which the US functions. • Thinking Skills <ul style="list-style-type: none"> ○ Competent citizens require skills in higher-level thinking processes – critical reasoning, problem solving, decision making, perspective-taking, divergent thinking – constructing hypotheses, and evaluating evidence. • Social Process Skills <ul style="list-style-type: none"> ○ Social skills identified as critical for high-functioning citizens include communication, conflict management, consensus building, and working in cooperative endeavors. • Student Attitudes <ul style="list-style-type: none"> ○ Effective civic education influences students in such a way that they demonstrate their belief in the efficacy of civic participation. 	<ul style="list-style-type: none"> • Embedded assessment within specified general education classes – could be a group discussion activity, a research paper, an essay, questions on an essay test, participation in an activity • Indirect evidence from CSC Alumni Survey and other program level surveys

<p>Critical Thinking</p>	<p>After completion of this project, students will be able to demonstrate at least one of the following skills:</p> <ul style="list-style-type: none"> • Comprehend complex ideas, data, concepts, judgments, beliefs, rules, procedures, or complex forms of visual and graphic representation; • Make inferences based on careful observation; • Make judgments based on specific and appropriate criteria; • Solve problems utilizing specific processes and techniques; • Recognize relationships between the arts, culture, and society; • Develop new ideas by synthesizing related and/or fragmented information; • Apply knowledge and understanding to different contexts, situations, and/or specific endeavors; • Deduce the meaning of data, statements, principles, beliefs, concepts, questions, or judgments; • Recognize the need to acquire new information; and, • State the results of one's reasoning. 	<ul style="list-style-type: none"> • Embedded assessment within specified general education classes– could be a group discussion activity, a research paper, an essay, questions on an essay test, participation in an activity • Indirect evidence from CSC Alumni Survey and other program level surveys <p>The ACT CAAP also has a critical thinking test, if we chose to use it.</p>
<p>Global Awareness</p>	<p>After completion of this project, students will be able to demonstrate at least one of the following skills:</p> <ul style="list-style-type: none"> • Knowledge of geography, history, culture, values, and/or language of another country • Knowledge of the impact of economic, political, health, environmental, and/or technological changes on people around the world • Knowledge of how the American culture has been impacted by other cultures • Knowledge of contributions made by other cultures to the scientific world, to medicine, to the arts and humanities, to education, to business, and other areas of study • Participation in some activity that has the potential to increase awareness of another culture 	<ul style="list-style-type: none"> • Embedded assessment within specified general education classes– could be a group discussion activity, a research paper, an essay, questions on an essay test, participation in an activity • Indirect evidence from CSC Alumni Survey and other program level surveys

Suggested General Education Student Outcomes from the Oklahoma State Regents for Higher Education

1. Appreciating and understanding diverse cultures and heritage
2. Mastering multiple modes of inquiry, reasoning, and critical thinking
3. Effectively analyzing and communicating information
4. Recognizing the importance of creativity and values to the human spirit
5. Understanding relationships within nature and science
6. Developing responsible, ethical, and engaged citizens
7. Promoting lifelong learning, wellness and personal enrichment
8. Adapting to a constantly changing global society

Some Additional General Education Student Outcomes from Various Colleges/Universities

1. Technology skills
2. Problem Solving
3. Leadership
4. Workplace skills, such as working in groups, etc. (especially if many technical programs are offered)