

General Education Assessment

Preamble:

We believe that a strong general education program that successfully integrates science, technology, and the liberal arts comprises the underpinnings of a more advanced education. As such, it includes values, knowledge, perspectives, and skills that guide our students in their personal development and in their pursuit of lifelong learning. It is a part of the educational experience of all undergraduates regardless of their major and it focuses on processes and outcomes that may transcend course boundaries. We further recognize that the general education of our students is a responsibility shared by the entire campus community.

Our general education program is based on five categories of learning outcomes that we believe to be critical components of a superior technical education regardless of a student's major. These categories of learning outcomes—communication, critical thinking, culture and the individual in society, quantitative reasoning, and science and technology—will be used to guide a student's educational growth.

Our general education philosophy is embedded in our vision and mission and is supported by our guiding principles. The guiding principles serve to emphasize our commitment to our students, to learning, to shared responsibility, and to the continual improvement of the education we offer. We work collaboratively to create a campus culture which is academically challenging and emotionally supportive.

General Education Categories:

- Communication
- Critical Thinking
- Culture and the Individual in Society
- Quantitative Reasoning
- Science and Technology

Communication

Learning Outcome:

Graduates will communicate effectively.

Expected Results:

1. Students will read and write different kinds of texts for different contexts, purposes, and audiences.
2. Students will prepare professional and technical documents and presentations appropriately.
3. Students will conduct research which entails gathering, organizing, interpreting, evaluating and presenting information in an appropriate format.
4. Students will make effective oral presentations.

Assessment Methods:

- A. Each semester the Department of Planning and Assessment surveys the Division of Student Affairs and the faculty teaching graduating seniors regarding the students' preparedness in the area of communication.
- B. The Department of Planning and Assessment examines the data obtained from appropriate general education questions on relevant ACT Surveys.
- C. The Office of Career Services annually surveys employers to determine their evaluation of graduates' achievement of expected results.
- D. The Department of Planning and Assessment will biennially administer to a sample of incoming freshmen and exiting seniors a standardized test such as the *ETS Tasks in Critical Thinking* or the *Academic Profile*.

The following matrix shows which assessment methods will be used for each expected result:

Expected Result	Assessment Method			
	A	B	C	D
1	X	X	X	X
2	X		X	
3	X	X	X	X
4	X	X	X	

Methods for implementing identified improvements:

The areas responsible for the above assessment methods forward a summary and/or analysis of data obtained to the General Education Assessment Committee. The Committee reviews the information collected to determine if the expected results have been achieved. The Committee forwards its recommendations to the vice presidents, deans, department heads, and faculty for use in curricular and/or program improvements.

Critical Thinking

Learning Outcome:

Graduates will use inquiry, logical reasoning, and critical analysis.

Expected Results:

1. Students will analyze, evaluate and make inferences from oral, written and visual materials.
2. Students will acquire and evaluate relevant information, analyze arguments, synthesize facts and information, and offer logical arguments leading to informed decision making.
3. Students will identify and solve problems reflectively by conceiving of alternatives and evaluating competing views or courses of action.

Assessment Methods:

- A. Each semester the Department of Planning and Assessment surveys the Division of Student Affairs and the faculty teaching graduating seniors regarding the students' preparedness in the area of critical thinking.
- B. The Department of Planning and Assessment examines the data obtained from appropriate general education questions on relevant ACT Surveys.
- C. The Office of Career Services annually surveys employers to determine their evaluation of graduates' achievement of expected results.
- D. The Department of Planning and Assessment will biennially administer to a sample of incoming freshmen and exiting seniors a standardized test such as the *ETS Tasks in Critical Thinking* or the *Academic Profile*.

The following matrix shows which assessment methods will be used for each expected result:

Expected Result	Assessment Method			
	A	B	C	D
1	X	X	X	X
2	X	X	X	X
3	X	X	X	X

Methods for implementing identified improvements:

The areas responsible for the above assessment methods forward a summary and/or analysis of data obtained to the General Education Assessment Committee. The Committee reviews the information collected to determine if the expected results have been achieved. The Committee forwards its recommendations to the vice presidents, deans, department heads, and faculty for use in curricular and/or program improvements.

Culture and the Individual in Society

Learning Outcome:

Graduates will understand the historical, cultural, political, social, and economic issues which have shaped societies and the evolving role of the individual in society.

Expected Results:

1. Students will understand the diversity of cultures and values among citizens of the United States as well as those of other nations.
2. Students will function effectively as individuals and in teams in a variety of societal, educational, and professional settings.
3. Students will understand and apply current technologies and research methods necessary to function as an informed citizen.
4. Students will demonstrate an awareness of and appreciation for the arts.

Assessment Methods:

- A. Each semester the Department of Planning and Assessment surveys the Division of Student Affairs and the faculty teaching graduating seniors regarding the students' preparedness in the area of culture and the individual in society.
- B. The Department of Planning and Assessment examines the data obtained from appropriate general education questions on relevant ACT Surveys.
- C. The Office of Career Services annually surveys employers to determine their evaluation of graduates' achievement of expected results #1, #2, and #3.
- D. Social Science faculty will use a course-embedded activity (i.e. papers, projects, examinations, etc.) in a required sophomore-level course to assess midpoint progress in achieving expected result #1.
- E. The Library provides bibliographic instruction on all Library print and computer-based resources to students in Composition I and Composition II, including a pre-test and post-course exercise, to assess achievement of expected result #3.

The following matrix shows which assessment methods are used for each expected result:

Expected Result	Assessment Method				
	A	B	C	D	E
1	X	X	X	X	
2	X	X	X		
3	X	X	X		X
4	X	X			

Methods for implementing identified improvements:

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Quantitative Reasoning

Learning Outcome:

Graduates will interpret, analyze and solve diverse problems having a quantitative element.

Expected Results:

1. Students will perform basic mathematical calculations needed to function in a technological society.
2. Students will interpret, summarize, and present empirical data and information in graphical and statistical forms and make valid inferences from such data.
3. Students will solve multi-step word problems typically encountered in applied situations.

Assessment Methods:

- A. Each semester the Department of Planning and Assessment surveys faculty teaching graduating seniors regarding the students' preparedness in the area of quantitative reasoning.
- B. The Department of Planning and Assessment examines the data obtained from appropriate general education questions on relevant ACT Surveys.
- C. The Office of Career Services annually surveys employers to determine their evaluation of graduates' achievement of expected results.

The following matrix shows which assessment methods will be used for each expected result:

Expected Result	Assessment Method		
	A	B	C
1	X	X	X
2	X	X	X
3	X	X	X

Methods for implementing identified improvements:

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Science and Technology

Learning Outcomes:

Graduates will apply the methods of science and technology to investigate and solve problems.

Expected Results:

1. Students will understand basic scientific theories and laws and how to apply them to analyze and interpret scientific data.
2. Students will understand and apply the technologies relevant to their discipline.
3. Students will understand the impact of past technologies and how to apply the lessons learned to current and future technological and scientific decisions.

Assessment Methods:

- A. Each semester the Department of Planning and Assessment surveys faculty teaching graduating seniors regarding the students' preparedness in the area of science and technology.
- B. The Department of Planning and Assessment examines the data obtained from appropriate general education questions on relevant ACT Surveys.
- C. The Office of Career Services annually surveys employers to determine their evaluation of graduates' achievement of expected results.
- D. The faculty teaching Science, Technology and Society 241 will annually review sample portfolios to assess achievement of expected result #3.

The following matrix shows which assessment methods will be used for each expected result:

Expected Result	Assessment Method			
	A	B	C	D
1	X	X	X	
2	X	X	X	
3	X	X	X	X

Methods for implementing identified improvements:

The areas responsible for the above assessment methods forward a summary and/or analysis of data obtained to the General Education Assessment Committee. The Committee reviews the information collected to determine if the expected results have been achieved. The Committee forwards its recommendations to the vice presidents, deans, department heads, and faculty for use in curricular and/or program improvements.