

## Student Learning Outcomes Assessment Policy and Procedures

### **PURPOSE:**

The purpose of this initiative is to provide guidance for:

1. The development of appropriate student learning outcomes for all aspects of the college.
2. Assessing the degree to which students are achieving appropriate learning.
3. Developing a system for measuring and reporting student learning.
4. Assuring that the results of student learning outcomes measurement are used to improve subsequent teaching and learning activities.
5. Assuring that all campus activities and units are utilizing outcome assessment procedures to drive decision making.

### **INSTITUTIONAL OVERSIGHT:**

The NCTA Assessment Committee is responsible for decisions regarding the development, support and implementation of the institutional assessment system and the monitoring of the quality of assessment activity of academic and co-curricular programs. The NCTA Assessment Chair is responsible for coordinating all aspects of campus assessment, including efforts associated with institutional learning outcomes and curricular programs. The chair assists units, as needed, with planning, designing, implementing, analyzing, reporting and disseminating assessment results. The chair promotes best practices in assessment and delivers regular assessment training for campus stakeholders.

### **PROCEDURES:**

These are the general steps to be used for the development and assessment of student learning outcomes at NCTA:

1. Develop program level student learning outcomes. Program level student learning outcomes are the knowledge, skills and values that students graduating from this program should possess. Generally, faculty meets with an advisory group to develop program level student learning outcomes. The advisory group consists of disciplinary experts, industry leaders, external faculty, and others with knowledge of the field. In disciplines with disciplinary accreditation, such as veterinary technology, the accrediting body determines what the student learning outcomes will be. Programs generally have 15 to 20 program level student learning outcomes, although this can be variable. The process used to develop program level student learning outcomes should be documented and the results should be reevaluated on a regular basis. The Academic Program Review Policy establishes the standards and procedures for review of program learning outcomes.
2. Assign program level student learning outcomes to specific courses at the college. A curriculum map or matrix has been developed to clearly document courses that are utilized to assess program level student learning outcomes, which is provided in Appendix 1.
3. Faculty teaching individual courses are responsible for the student learning outcomes that have been assigned to their courses. Faculty may decide to add additional student learning outcomes at their discretion. Each course should generally have two student learning outcomes per credit (for example, a three credit course would have six student learning outcomes) although this may be variable, based on instructor needs. Course level student learning outcomes should be listed in the syllabus for each course.
4. Faculty is responsible for selecting activities and facilitating an environment that results in student attainment of the student learning outcomes. Often, this involves activities such as lectures, assigned readings, laboratory activities, appropriate demonstrations, course discussions, student projects, guest lecturers, etc.

5. Faculty identify one objective, direct measure for each student learning outcome and a benchmark of success for each outcome. Often faculty use rubrics to assess student learning outcomes. A rubric is defined as a document that articulates the expectations for an assignment by listing the criteria, or what counts, and describing levels of quality from excellent to poor.
6. An indirect measure of each student learning outcome will be determined by asking for student feedback on student learning outcomes attainment as part of the course evaluation process. A report is generated each semester summarizing the results of this indirect assessment of student learning outcomes. Division chairs will meet with faculty and discuss intervention strategies for those student learning outcomes with an average indirect measure below 3.0 on a five-point scale.
7. Each semester, faculty report student learning outcomes assessment. The report conforms to the college template (Appendix 2) and contains:
  - a. The list of student learning outcomes by course
  - b. The assessment measure used for each student-learning outcome
  - c. Assessment results – student progress towards achieving the student learning outcome
  - d. An explanation of how the results are used to improve student learning in subsequent semesters.
8. SLO reports are due by January 15 for fall semester courses and by June 1 for spring semester courses. All assessment plans and summary reports are available on the NCTA assessment webpage - <http://ncta.unl.edu/assessment>
9. The course reports are compiled and submitted to the division chair as part of the faculty member's annual evaluation process.
10. Division chairs evaluate student learning outcomes results and assist faculty in improving outcomes, if necessary. Division chairs may direct faculty to the NCTA Assessment Committee for additional assistance.
11. The NCTA Assessment Committee will be responsible for developing an annual report which documents the number of SLO's assessed and the percentage of courses which were assessed for SLO's. This document will be maintained on the assessment webpage.
12. NCTA academic divisions will provide a summary report describing assessment procedures, summaries documenting success of student achievement of program learning outcomes, and recommendations to improve student learning by July 15 of each year. (see Appendix 3 – NCTA Annual Assessment Timeline)

## **GENERAL EDUCATION**

NCTA will maintain a General Education program that aligns with the college's mission and follows guidance described by the Higher Learning Commission and other accrediting organizations. Curriculum development and assessment will utilize the following mission and philosophy for guidance.

Mission - The mission of the General Education Division is to provide broad intellectual knowledge, awareness, and critical thinking skills in the liberal arts, humanities, and natural and social sciences directed toward the successful pursuit of students' personal and career goals as citizens and leaders in agriculture enterprises.

Philosophy - General education is part of the academic experience that builds students' growth as citizens and professionals. General education instruction engages students in independent, critical, and creative thinking; promotes open-mindedness and understanding; gives confidence and inquisitiveness

to challenge assumptions and explore ideas and values; promotes the passing of sound judgment; encourages the consideration of ethical and practical consequences of actions; and facilitates wisdom.

#### Assessment of General Education

All general education courses and curriculum will be assessed utilizing the procedures described in this policy. The General Education Division chair will oversee program assessment and provide an annual assessment report utilizing the same framework as other academic divisions. Industry advisory councils utilized by other academic divisions will also be a tool for assessing and enhancing student learning in general education.

#### **COURSE SYLLABI AND SLO'S**

All course syllabi must clearly state the Student Learning Outcomes of the course. In addition, the following items will be included in all course syllabi in order to clearly communicate the course's role in assessing program and/or general education outcomes. NCTA's Classroom/Course Policy provides full syllabi templates.

1. General Education Courses
  - a. Provide the General Education mission statement.
  - b. Provide the General Education learning outcomes that are assessed in the course.
2. Academic Program Courses
  - a. Provide the mission statement of the academic division.
  - b. Provide the program level outcomes that the course supports. Clearly indicate if the course is used for assessing the program outcome or if the course only provides the opportunity for students to learn the outcome.
  - c. Provide any General Education outcomes that the course supports

#### **DISTANCE LEARNING**

Distance learning includes online, dual credit, and concurrent enrollment courses in which the primary method of instruction utilizes methods that do not include face-to-face interaction between instructors and students. All distance learning courses must comply with the assessment procedures outlined in this policy. Additional procedures and requirements for distance learning course development and faculty training are described fully in the Distance Learning Policy.

#### **CO-CURRICULAR ACTIVITY ASSESSMENT**

##### Co-curricular Activity Overview

Co-curricular activities are defined by the Higher Learning Commission as learning activities, programs and experiences that reinforce the institution's mission and values and complement the formal curriculum. Examples may include student-faculty research experiences, study abroad, service learning, clubs or organizations, competing teams, honor societies, career services, etc. The Higher Learning Commission (HLC) has established criterion regarding the role of co-curricular activities in the student learning process including assessment procedures. HLC Criteria for Accreditation that address co-curricular activities are as follows:

Criterion Three: Teaching and Learning: Quality, Resources, and Support.

- 3.C.6. Staff members providing student support services, such as tutoring, financial aid advising, academic advising, and co-curricular activities, are appropriately qualified, trained, and supported in their professional development.
- 3.E.1. Co-curricular programs are suited to the institution's mission and contribute to the educational experience of its students.

Criterion Four: Teaching and Learning: Evaluation and Improvement.

- 4.B.2. The institution assesses achievement of the learning outcomes that it claims for its curricular and co-curricular programs.
- 4.B.3. The institution uses the information gained from assessment to improve student learning.
- 4.B.4. The institution's processes and methodologies to assess student learning reflect good practices, including the substantial participation of faculty and other instructional staff members.

Implementation of co-curricular activity assessment procedures described in this document followed the following timeline:

- 1) Learning outcome statements for all clubs and teams provided to the Assessment Committee Chairperson prior to July 31, 2021.
- 2) Assessment procedures developed and data summarized by the Assessment Committee Chairperson by July 31, 2022.
- 3) A Co-curricular Activity Summary Assessment Report will be generated annually by the Assessment Committee Chairperson by August 1.

Mapping Co-curricular Activity to NCTA's Mission and Values

NCTA student organizations and teams represent the college's primary co-curricular activities. Five learning outcomes were developed for these activities that reflect NCTA's mission, vision, and value statements. Faculty that advises student organizations and competitive teams developed learning outcome statements specific to the club/team. These individualized outcome statements provided the framework for mapping the organization/team with the 5 Co-Curricular Learning outcomes; an assessment procedure that mimics the accepted practice mapping courses to program level outcomes.

Co-Curricular Activity Outcomes

- 1) Prepares the student for a successful career in agriculture, veterinary technology, and related industries.
- 2) Provides the student a practical, applied, experiential learning experience.
- 3) Provides the student with interaction and support from agricultural industries and organizations.
- 4) Develops the student's personal integrity and responsibility.
- 5) Develops the student's respect for everyone's contributions, perspectives and personal worth.

## Student Learning Outcomes Assessment Policy

Activity	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 4
Ag Business Club	Experience	Observe	Experience	Experience	Experience
Ag Mechanics Club	Experience	Experience	Experience	Experience	Experience
Collegiate 4H and FFA	Experience	Experience	Experience	Analysis	Experience
Collegiate Cattleman	Experience	Experience	Experience	Analysis	Experience
Collegiate Farm Bureau	Experience	Experience	Analysis	Experience	Experience
Crops Judging Team	Analysis	Analysis	Experience	Experience	Experience
Horticulture Club	Observe	Experience	Experience	Experience	Experience
Livestock Judging Team	Experience	Experience	Experience	Analysis	Analysis
Phi Theta Kappa	Observe	Not available	Not available	Experience	Experience
Ranch Horse Team	Experience	Experience	Experience	Analysis	Analysis
Rodeo Team	Observe	Analysis	Observe	Analysis	Experience
Safari Club	Analysis	Analysis	Analysis	Analysis	Analysis
Shooting Sports Team	Experience	Experience	Not available	Experience	Experience
Stockdog Team	Observe	Experience	Observe	Experience	Experience
Student Senate	Observe	Not available	Not available	Experience	Experience
STVMA	Experience	Experience	Not available	Experience	Experience
Women in Ag	Observe	Observe	Experience	Experience	Experience

Outcome Achievement Level: Not Available, Observe, Experience, or Analysis

Another way of showing that our teams and clubs support NCTA's mission and values is to map our student organizations and teams to our general education outcomes. The following is our general education outcomes and matrix for connecting clubs and teams to these outcomes.

### General Education Outcomes

1. **Written Communication.** Written communication is the development and expression of ideas in writing.
2. **Oral Communication.** Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.
3. **Quantitative Literacy.** Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a “habit of mind,” competency, and comfort in working with numerical data.
4. **Problem Solving.** Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.
5. **Civic Engagement:** Civic engagement is working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference.
6. **Critical Thinking:** Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.
7. **Intercultural Knowledge and Competence:** Intercultural Knowledge and Competence is "a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts."

Activity	GE #1	GE #2	GE #3	GE #4	GE #5	GE #6	GE #7
Ag Business Club	1	4	1	4	4	4	4
Ag Mechanics Club	1	3	2	4	3	3	3
Collegiate 4H and FFA	3	4	3	3	5	3	4
Collegiate Cattlemen	3	4	3	3	5	3	4
Collegiate Farm Bureau	2	3	2	3	5	4	4
Crops Judging Team	3	2	5	5	2	3	2
Horticulture Club	3	3	1	5	4	4	3
Livestock Judging Team	4	5	4	5	4	5	4
Phi Theta Kappa	1	2	1	1	3	2	2
Ranch Horse Team	2	4	3	5	3	3	2
Rodeo Team	1	2	1	3	3	2	3
Safari Club	3	5	3	5	3	5	5
Shooting Sports Team	1	2	3	3	5	4	2
Stockdog Team	1	4	1	5	3	5	1
Student Senate	1	2	1	1	4	2	3
STVMA	1	3	1	3	5	2	2
Women in Ag	2	4	2	4	5	5	4

- For each outcome, indicate the level that the activity provides learning in the outcome using a scale of 1 to 5 where 1 = none or not available and 5 = very high learning.

#### Co-Curricular Activity Assessment Procedures

All teams have courses and will continue to utilize the existing Course Student Learning Outcome reporting structure developed in 2013. These data will be included in the annual Co-Curricular Activity Assessment Report.

Student organizations will be assessed by an annual survey (Appendix 4) of students to gather data that effectively evaluates student’s perception of how effectively the organization supported the 5 Co-Curricular Learning Outcomes as well as supporting General Education outcomes. Data will be summarized annually in the Co-Curricular Activity Assessment Report to assist programs in decision making.

Co-curricular activities that provide services to students such as intramurals, career services, student life, library, food services, etc. will report learning outcome statements and assessment results to the Associate Dean of Student Services to be included in the Student Services annual assessment report.

#### **ADVISORY COUNCILS**

Each academic division at NCTA will utilize advisory councils to assist with student learning outcome development and assessment of student learning. Advisory councils are essential to developing and sustaining educational programs that meet the needs of the community and the industry employers in the state of Nebraska. Divisions should annually utilize advisory councils to assist with developing appropriate student learning outcomes and assessment procedures. The “Program Advisory Council Handbook” provides guidance and ideas for developing an effective advisory council structure. Minimal advisory council requirements are as follows:

- 1) Review of academic programs and program-level outcomes
- 2) Review of assessment results and proposed changes
- 3) Review of one core course each year that is used for program level assessment

### **ANNUAL DIVISION SUMMARY REPORTS**

Division summary reports are due to the Assessment Committee Chair July 15 each year. The primary objective of the report is to clearly document assessment procedures and results of program level outcomes. Components of the annual division report should include the following:

- 1) Clearly describe program level outcomes and assessment procedures
- 2) Present and discuss assessments results. Results should clearly indicate level of student achievement of program outcomes
  - a. Examples including results from courses, internships, advisory councils, exit exams, etc.
- 3) Describe any changes in curriculum, budgeting, or resource needs that will be proposed based on assessment results
- 4) Report division level enrollment, retention rates, transfer rates, and graduation rates
- 5) Update and include as an appendix the “Program Outcome – Course Matrix”

### **COLLEGE WIDE ASSESSMENT PROTOCOL**

NCTA’s strategic plan provides college wide guidance in creating a learning-focused environment where faculty, administrators, and staff work actively to help students learn. Goals are developed to achieve excellence in areas such as: academic quality; student services, infrastructure, budget and finances, public relations and enrollment.

The Assessment Committee will annually measure attainment of college-wide goals identified in the college strategic plan utilizing a scorecard that includes the following structure:

1. Lists assessment tools, approaches and reports utilized for obtaining the goal.
2. Rate achievement of the goal on a scale of 1 to 10, where 10 = done.
3. Provides a summary that clearly demonstrates the reason for the rating.





**Appendix 2 – Course SLO Report Template and Example**

Template

<b>Instructor:</b>	<b>Semester:</b>
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<b>Course:</b>					
Student Learning Outcome	Assessment Tool	Current Results		Previous Results	
		# tested	# passed	# tested	# passed

Summarize changes you plan to make to improve student achievement of SLO's (new methods of instruction, new assessment tools, etc.)

Describe the impacts of changes you made based on the previous assessment for the course.

Describe any funds needed to improve student learning

Example

<b>Instructor: Brad Ramsdale</b>	<b>Semester: Spring 2017</b>
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<b>Course: AEQ 2323 Precision Farming</b>					
Student Learning Outcome	Assessment Tool	Current Results		Previous Results	
		# tested	# passed	# tested	# passed
1. Students will gain a working knowledge of global positioning systems (GPS) including factors influencing accuracy and potential uses/applications.	Exam/Rubric	21	19	19	19
2. Students will be able to effectively utilize geographic information systems (GIS) including a working knowledge of GIS map interpretation.	Exam/Rubric	21	19	19	12
3. Students will identify yield monitor components and interpret yield maps for adjusting crop management inputs.	Exam/Rubric	21	20	19	19
4. Students will gain a working knowledge of precision soil sampling techniques and technology and be able to utilize precise soil data for fertility and crop management.	Exam/Rubric	21	17	19	19
5. Students will understand the potential of using ground-based, satellite or aircraft-based remote sensing for crop management.	Exam/Rubric	21	16	19	18
6. Students will understand the potential uses of variable-rate applicators and have a working knowledge of operating variable-rate application equipment.	Exam/Rubric	21	16	19	16

Summarize changes you plan to make to improve student achievement of SLO's (new methods of instruction, new assessment tools, etc.)  
*Will develop new learning outcomes and assessments to focus on very specific learning objectives. Linking specific knowledge details to a general application of that knowledge is a struggle for some students.*

Describe the impacts of changes you made based on the previous assessment for the course.  
*SMS Advanced Software classroom time and exercises improved student learning compared to past semesters in outcome 2.*

Describe any funds needed to improve student learning  
*\$2000 annually to continue software license.*

**Appendix 3 – Annual Assessment Timeline**

**NCTA Campus-wide Annual Assessment Timeline**



**Student Learning Outcome Annual Assessment Timeline**

- 1) Student Learning Outcomes Assessment Data Collection
  - a) SLO Course Reports (faculty reports to division heads; division heads to assessment committee chair by the following deadlines)
    - i) Summer Session – September 15
    - ii) Fall Semester – January 15
    - iii) Spring Semester – June 1
  - b) Internship Survey Results
    - i) Divisions collect and summarize data, results summarized in annual division report
  - c) Annual Advisory Council Meetings – date set by division
    - i) Meeting agenda’s and minutes posted to common drive
  - d) Faculty and Staff Evaluations – completed by April 15
  - e) Student Opinion Survey – End of spring semester by graduating students
    - i) Results summarized by Assessment Committee and distributed to appropriate divisions/units
- 2) Division Summary Report of Program-Level SLO Assessment – July 15
  - a) Report structure and requirements described previously
- 3) Division Budget Requests based on Assessment – Fall Semester
  - a) Operating Budget Requests
  - b) Capital Equipment Improvement Requests
  - c) IT Requests
- 4) Curriculum Changes based on Assessment
  - a) Approved through Academic Council during Fall semester
  - b) Catalog Changes due by January 1

**Student Services Assessment Timeline**

- 1) Data Collection – August to May
  - a) Recruiting
    - i) Number of schools visited
    - ii) Number of conferences attended
    - iii) Paid applications
    - iv) Registered students
    - v) Enrollment - 6 day count
  - b) Retention
    - i) Fall to Spring
    - ii) 1<sup>st</sup> to 2<sup>nd</sup> year
    - iii) Transfer students
  - c) Employee training/personal development
  - d) Student Opinion Survey - end of spring semester
    - i) Financial aid, student services
  - e) Staff Evaluations- 2Xyear
- 2) Unit Summary Report – July 15
- 3) Unit Budget Requests based on Assessment
- 4) Student Handbook and Catalog Changes – January 1

**Campus Facilities Assessment Timeline**

- 1) Data Collection – August to May
  - a) Work orders
    - i) Number of Work orders
    - ii) Completion rate
    - iii) Average time of completion
  - b) Human Capital report
    - i) How much time is spent
  - c) Utilities using staff time
    - i) Boiler Usage-Efficiency collection
    - ii) Daily time spent on boilers
  - d) Paid Invoice/P Card transactions
    - i) % paid on time
  - e) Internal and external deadlines
    - i) % of on-time completion
  - f) Training
    - i) % of each department trained in required areas
  - g) Preventative Maintenance schedule and reports on percentage completed in a timely manner annually
  - h) Student Opinion Survey – end of spring semester
  - i) Staff Evaluations- 2Xyear
- 2) Unit Summary Report – July 15
- 3) Unit Budget Requests based on Assessment
- 4) Staff Handbook Changes – January 1

#### Appendix 4 – Assessment Survey for Student Organizations

How many clubs and teams were you an active member? (attended more than 50% of the meetings)

- 1
- 2
- 3
- 4 or more

Indicate the level of your participation in this activity.

- None
- Attended less than 25% of meetings
- Attended 25 to 50% of meetings
- Attended 50 to 75% of meetings
- Attended 75 to 100% of meetings
- Attended majority of meetings and held leadership position

For each of the statements below, indicate how well the activity supported the outcome statement.  
(Drop down scale = strongly disagree, disagree, uncertain, agree, strongly agree)

- 1) Prepares the student for a successful career in agriculture, veterinary technology, and related industries.
- 2) Provides the student a practical, applied, experiential learning experience.
- 3) Provides the student with interaction and support from agricultural industries and organizations.
- 4) Develops the student's personal integrity and responsibility.
- 5) Develops the student's respect for everyone's contributions, perspectives and personal worth.

For each of the statements below, indicate how well the activity provided learning in the subject.  
(Drop down scale = no opportunities, poor, good, very good, excellent)

- 1) Written communication
- 2) Oral communication
- 3) Numerical or quantitative reasoning
- 4) Problem solving
- 5) Civic engagement or community involvement
- 6) Critical thinking of issues and ideas
- 7) Awareness of diversity and inclusion