

ASSESSMENT HANDBOOK FOR STUDENT LEARNING

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ASSESSMENT FOR STUDENT LEARNING HANDBOOK

IT'S ALL ABOUT HELPING STUDENTS LEARN

Are our students learning?

**What do we want our students
to know and be able to do?**

**How will we know
what our students have learned?**

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Diagnostic, Formative and Summative Assessment (An Overview)

Assessment is the process of gathering data. More specifically, assessment is the *ways* instructors gather data about their teaching and their students' learning (Hanna & Dettmer, 2004). The data provide a picture of a range of activities using different forms of assessment such as: pre-tests, observations, and examinations. Once these data are gathered, you can then evaluate the student's performance. *Evaluation*, therefore, draws on one's judgment to determine the overall value of an outcome based on the assessment data. It is in the *decision-making* process where we design ways to improve the recognized weaknesses, gaps, or deficiencies.

Types of Assessment

There are three types of assessment: diagnostic, formative, and summative. Although the three are generally referred to simply as assessment, there are distinct differences between them.

Diagnostic Assessment

Diagnostic assessment can help you identify your students' current knowledge of a subject, their skill sets and capabilities, and to clarify misconceptions before teaching takes place. Knowing students' strengths and weaknesses can help you better plan what to teach and how to teach it.

Types of Diagnostic Assessments

- Pre-tests (on content and abilities)
- Self-assessments (identifying skills and competencies)
- Discussion board responses (on content-specific prompts)
- Interviews (brief, private, 10-minute interview of each student)

Formative Assessment

Formative assessment provides feedback and information during the instructional process, while learning is taking place. Formative assessment measures student progress but it can also assess your own progress as an instructor. For example, when implementing a new activity in class, you can, through observation and/or surveying the students, determine whether or not the activity should be used again (or modified). A primary focus of formative assessment is to identify areas that may need improvement. These assessments typically are not graded and act as a gauge to students' learning progress and to determine teaching effectiveness (implementing appropriate methods and activities).

In another example, at the end of the third week of the semester, you can informally ask students questions which might be on a future exam to see if they truly understand the material. An exciting and efficient way to survey students' grasp of knowledge is through the use of clickers. Clickers are interactive devices which can be used to assess students' current knowledge on specific content. For example, after polling students you see that a large number of students did not correctly answer a question or seem confused about some particular content. At this point in the course you may need to go back and review that material or present it in such a way to make it more understandable to the students. This formative assessment has allowed you to "rethink" and then "re-deliver" that material to ensure students are on track. A primary focus of formative assessment is to identify areas that may need improvement. It is good practice to incorporate this type of assessment to "test" students' knowledge before expecting all of them to do well on an examination.

Types of Formative Assessment

- Observations during in-class activities; of student's non-verbal feedback during lecture
- Homework exercises as review for exams and class discussions
- Reflection journals that are reviewed periodically during the semester
- Question and answer sessions, both formal—planned and informal—spontaneous
- Conferences between the instructor and student at various points in the semester
- In-class activities where students informally present their results
- Student feedback collected by periodically answering specific question about the instruction and their self-evaluation of performance and progress

Summative Assessment

Summative assessment takes place after the learning has been completed and provides information and feedback that sums up the teaching and learning process. Typically, no more formal learning is taking place at this stage, other than incidental learning which might take place through the completion of projects and assignments.

Rubrics, often developed around a set of standards, outcomes (course or program) or expectations, can be used for summative assessment. Rubrics can be given to students before they begin working on a particular project so they know what is expected of them (precisely what they have to do) for each of the criteria. Rubrics also can help you to be more objective when deriving a final, summative grade by following the same criteria students used to complete the project.

High-stakes summative assessments typically are given to students at the end of a set point, during or at the end of the semester, to assess what has been learned and how well it was learned. Grades are usually an outcome of summative assessment: they indicate whether the student has an acceptable level of knowledge gained - is the student able to effectively progress to the next part of the class? To the next course in the curriculum? To the next level of academic standing?

Summative assessment is more product-oriented and assesses the final product, whereas formative assessment focuses on the process toward completing the product. Once the project is completed, no further revisions can be made. If, however, students are allowed to make revisions, the assessment becomes formative, where students can take advantage of the opportunity to improve.

Types of Summative Assessment

- Examinations (major, high-stakes exams)
- Final examination (a truly summative assessment)
- Term papers (drafts submitted throughout the semester would be a formative assessment)
- Projects (project phases submitted at various completion points could be formatively assessed)
- Portfolios (could also be assessed during it's development as a formative assessment)
- Performances
- Student evaluation of the course (teaching effectiveness)
- Instructor self-evaluation

Summary

Assessment measures if and how students are learning and if the teaching methods are effectively relaying the intended messages. Hanna and Dettmer (2004) suggest that you should strive to develop a range of assessment strategies that match all aspects of your instructional plans. Instead of trying to differentiate between formative and summative assessments, it may be more beneficial to begin planning assessment strategies to match instructional goals and objectives at the beginning of the semester and implement them throughout the entire instructional experience. The selection of appropriate assessments should also match course and program objectives necessary for accreditation requirements.

Assessment for Student Learning at NCTA

NCTA is all about helping students learn. We're committed more than ever to creating learning-centered environments where faculty, administrators, and staff work actively to help students learn. Using methods of Assessment FOR Student Learning is our way of assuring that learning is occurring and improving. We've learned that "one size does not fit all." However, the improvements that do result from an assessment process make the challenge of finding answers to that significant question, "How do we know what our students have learned?"

We are discovering that unlike evaluation, which looks at mastery of outcomes and process, Assessment FOR Learning looks at the process of learning or failing to learn. We ask the question, "If learning has not been achieved, what factors or behaviors have interfered with the learning process, and what can we do about it?" Processes and outcomes are connected.

The **ASSESSMENT FOR STUDENT LEARNING HANDBOOK** provides a framework for continuous improvement of student learning and a commitment to program excellence. Our process provides evidence that:

- Learning outcomes are observable and are performed by the students
- Curriculum alignment provides the opportunity for students to achieve these outcomes because the curriculum is driven by intended learning outcomes and assessment evidence
- Learning opportunities are consistent and contribute to student learning
- Successful program completion provides students with the skills and abilities described in the general education goals and are clear enough to be understood by our stakeholders
- Faculty teaching NCTA courses provide students with multiple integrated learning opportunities to assure that students will be able to do outside the learning environment (classroom and labs) what they have learned through their learning experiences

NEBRASKA COLLEGE OF TECHNICAL AGRICULTURE POLICY 1

ASSESSMENT FOR STUDENT LEARNING

January, 2013

Nebraska College of Technical Agriculture is committed to ongoing outcomes assessment for continuous improvement of student learning and teaching strategies. The assessment process allows for faculty to explore ways to continually improve student learning, course design, the effectiveness of programs, and overall teaching and learning. Unlike evaluation, which looks at mastery of content, assessment looks at the process of learning. Assessment should enhance learning and should reflect the outcomes, purpose, and direction of learning design. Assessment also provides the means for transformative learning by providing relevant, clear, and timely feedback to students and other stakeholders.

(A) Definition of Outcomes Assessment for Student Learning

Outcomes assessment is the process of ongoing measurement and continuous improvement of student learning at Nebraska College of Technical Agriculture and has specific and interrelated purposes:

- To improve student academic achievement
- To improve teaching strategies
- To document best practices
- To identify opportunities for systemic improvements
- To provide evidence for institutional effectiveness

(B) Outcomes Assessment Process

The Nebraska College of Technical Agriculture assessment process is ongoing and mission driven. This process includes the assessment of student learning outcomes, course learning outcomes, program outcomes, and general education goals. In addition, the process validates program outcomes.

(C) The Dean shall establish procedures to administer this policy.

NEBRASKA COLLEGE OF TECHNICAL AGRICULTURE

POLICY 2

ASSESSMENT FOR STUDENT LEARNING

January, 2013

(1) Assessment of General Education Goals

General Education Goals represents the measurable knowledge and skills that serve as the foundation for success in society and in one's discipline, vocation, and life. These goals are periodically reviewed and updated by faculty in collaboration with staff and administrators (NCTA assessment committee).

All credit programs are required to assess their learning outcomes related to the college General Education Goals. Assessment of General Education Goals is conducted by the program faculty and the NCTA assessment committee.

(2) Assessment and Validation of Credit and Education

Assessment and validation of learning outcomes in credit courses and programs is conducted by the program faculty and then reviewed by NCTA assessment committee. The entire assessment and validation processes can be found in the college Assessment for Student Learning Handbook.

(3) Assessment of Non-credit Education

Non-credit courses may be career, informational, or consultative in nature, but not necessarily limited to these categories. These courses may be offered for continuing education units, professional development, personal enrichment, or in anticipation of articulation or transfer into a degree program. Assessment of non-credit courses will be reviewed by each division and results passed on to the NCTA assessment committee.

NEBRASKA COLLEGE OF TECHNICAL AGRICULTURE

POLICY 3

ASSESSMENT FOR STUDENT LEARNING

January, 2013

(4) Assessment for Student Learning Handbook

This handbook provides a comprehensive outline for the college assessment processes and procedures. The handbook reflects the collaborative work of faculty, administrators, and staff. Requests to change the assessment process in the handbook will be facilitated through the NCTA assessment committee in consultation and approval of the Dean.

(5) Center of Assessment for Student Learning

All assessment and validation data will be sent to and reviewed by the NCTA assessment committee and maintained by the administrative assistant in the Dean's office.

Statements on Student Learning and Improvement

Philosophy of Student Learning Assessment (Catalog Statement)

Nebraska College of Technical Agriculture believes that the college can influence how well and how much students learn. As an institution of higher learning, the mission of the Nebraska College of Technical Agriculture, “is dedicated to the development of innovative individuals for the agriculture industry and related sciences.”

Academic assessment provides systematic, routine processes that allow the faculty and students to determine the degree that students are achieving the stated student learning outcomes. The following questions guide the assessment process.

Are our students learning?

1. How are students learning?
2. How much are students learning?
3. To what extent are students learning?

Purpose of Academic Assessment (Syllabus Statement)

Academic assessment is the process for *ongoing improvement of student learning and success*. The assessment program at Nebraska College of Technical Agriculture has four specific interrelated purposes.

1. To improve student learning
2. To improve teaching strategies
3. To document successes and identify opportunities for improvement
4. To provide evidence for institutional effectiveness

Nebraska College of Technical Agriculture’s assessment program is mission-driven and faculty owned. It includes assessment of courses and programs in the following divisions:

Agriculture Production Systems
Animal Science
Agronomy
Horticulture Systems
Agribusiness Management Systems
Veterinary Technology

NCTA Assessment Goals FOR Student Learning

The goals of the NCTA Assessment Committee for Student Learning are to

- Promote a community of collaboration and inquiry to share ideas, find solutions, and build innovations regarding student learning
- Support student learning outcomes as the core of faculty, student services, and workforce development to strive for partnerships among campus educators while creating innovative learning experiences for students
- Create a resource center to provide a collaborative environment to engage faculty, staff, administrators, and the college community in outcome assessment practices
- Create a repository for required academic assessment reports and best practices in assessment that will be accessible to all faculty, administrators, staff, students, and other interested constituents
- Work collaboratively with academic divisions to support assessment activities
- Strengthen the measurement of general education to develop student learning
- Maintain a website to increase the visibility, communication, and importance of assessment for student learning in all learning areas and modes of delivery
- Maintain and disseminate the Assessment for Student Learning Handbook
- Collaborate with curriculum management to integrate assessment evidence into the curriculum review process
- Integrate practices with curriculum development, instructional design, distance learning, student services, community education, and workforce development.

Some of the activities to achieve these goals include the following:

- Developing, scheduling, presenting, and coordinating campus assessment activities such as work sessions, seminars, and training (in coordination with division and college assessment committees)
- Maintaining an assessment web page that includes
 - Minutes of the Assessment Committee meetings
 - An assessment glossary of operational terms
 - Frequently asked questions (FAQs)
 - Best practices on campus
 - Information on assessment conferences
 - Reports from assessment conferences
 - Information on assessment instruments and their availability
 - Links to other assessment sites

- E-mail addresses to co-chairs of the Assessment Committees
- Other assessment news
- Disseminating an annual report written regarding assessment communication activities (based on information from division assessment committees) and best practices
- Collaborating with division committees to provide support and mentoring.

Assessment Committees

The Assessment Committee

The Assessment committee is a body responsible for examining the assessment policy and procedures of the College. This includes the formal process of campus-wide learning outcomes assessment and reporting the results of that assessment. The specific charge to the committee includes the following activities:

- Review and recommendations of related policy and procedure
- Overseeing the implementation and compliance to the College Assessment Plan
- Examining and critiquing Program Outcomes Validation Reports and providing an Executive Summary of these reports to the Dean
- Examining and critiquing student achievement of academic outcomes reports for both program and general education outcomes and providing an Executive Summary of these reports to the Dean
- Monitoring curricular and methodology changes in programs/ divisions that occur because of program outcomes validation and the measurement of student achievement of academic outcomes

In addition to the afore mentioned responsibilities, the committee also has specific charge for the following activities related to General Education. Validation and assessment of the following 12 general education learning outcomes:

Intellectual and Practical

1. Inquiry and analysis
2. Critical thinking
3. Creative thinking
4. Written communication
5. Oral communication
6. Reading
7. Information literacy
8. Quantitative Literacy
9. Problem solving

Personal and Social Responsibility

10. Civic knowledge and engagement
11. Ethical reasoning

Integrative and Applied Learning

12. Integrative and applied learning

The committee is also responsible for the following activities:

- Reviewing the general education outcome statements to ensure they are stated in measurable terms
- Conducting a general education outcome validation study every three years
- Writing a general education outcome validation report to submit to the division committee
- Reviewing, evaluating, and recommending instruments to assess the general education outcomes
- Monitoring the distribution and collection of instruments used to assess the general education outcomes
- Monitoring, collecting, analyzing, recording, and distributing data on the assessment of general education outcomes on the institutional/program/classroom level
- Writing an annual report to the College Assessment committee of Instructional Council regarding general education outcomes assessment activities.

Appointed Membership

As a part of Nebraska College of Technical Agriculture's Instructional Council, the Committee includes 3 Division Chairs (Animal Science, Agronomy and General Education), 2 faculty, 1 administrator, and 1 student. The Associate Dean chairs the committee.

Assessment FOR Student Learning – Frequently Asked Questions (FAQs)

Assessment is a type of action research to help us gather indicators that will be useful for improving student learning through our curriculum and teaching strategies. It focuses on student learning and what the student will be able to do and not so much on what we are going to teach. The following Q & As will attempt to provide answers to some frequently asked questions that may further your understanding of the assessment process.

1. **Q. Why do we assess FOR student learning?**

A. To do assessments for the goal of doing an assessment and writing a report would be a waste of time. Link your assessment practices to compelling, powerful, and consequential processes such as division review or program validation. You can link it to curriculum revisions, distance learning, retention, service learning, and improving student learning and teaching strategies.

There is considerable evidence that assessment drives student learning and curriculum. Most important, our assessment tools tell our students what we consider to be important and make clear our expectations of what the student will do to be successful in the course or program. They will learn what we guide them to learn through our assessments. By using appropriate assessment techniques, we can encourage our student to raise the bar.

2. **Q. I already give tests and grades. Isn't that assessment?**

A. Not really. Tests and quizzes are an evaluation of learned material. Assessment involves a sample of behavior from your student that can be observed and judged on the basis of specific criteria developed and assessed in multiple modes and contexts of the *learning process*. For example, a project, presentation, a number of writing assignments, labs, and more. Traditional testing methods are limited measures of student learning and of limited value for guiding student learning. We can't just say that 73% of our students are getting A's and B's, so we must be doing okay. A letter grade itself does not give enough information about the learning that is occurring.

3. **Q. Aren't student learning outcomes specific tasks that the student will perform?**

A. No, not tasks. Student learning outcomes are generic abilities that can be developed/improved and assessed. (See the Glossary for terms – competency vs. learner-centered outcome)

4. **Q. What is an outcomes-based course?**

A. An outcomes-based course is supported with multiple learning opportunities for the student to achieve the learning outcomes.

5. **Q. What is the syntax of pedagogy?**

A. Student learning outcomes, taxonomy, assessment – for each learning outcome the faculty will develop/provide at least three assessments with measurements, more specifically, opportunities for the students to learn with meaningful feedback.

6. **Q. When we validate program outcomes (3-year cycle) in Career and Technical Programs, aren't we assessing individual students?**
 - A. No. We are assessing programs and program outcomes. We want to determine how well our programs are actually achieving what they profess to achieve. Program outcome validation seeks to determine if program and general education outcomes are appropriate to meeting current academic, business, trade and/or professional/technological standards.

7. **Q. How does assessment FOR learning help faculty?**
 - A. It provides teachers with useful information about their students, including the quality of learners and readiness for learning. Ongoing assessment informs the teachers about the pace and progress of student learning in their classroom.

8. **Q. Is this something extra for me to do? Who should be doing assessments?**
 - A. No, it's not extra. You're already assessing. It's those learning opportunities that you have designed in your curriculum where you can give your students on-going feedback so that they can improve learning. Only faculty who guide the learning process can identify the student learning outcomes of that process, what it is they expect to happen to/for the student. It is the faculty who teach in that program, interpret the results, and recommend improvements in pedagogy and curriculum.

9. **Q. How can I assess attitudes and understanding what are simply not quantifiable?**
 - A. It seems a common misunderstanding that assessment requires that everything be reduced to statistical measures. The thrust of assessment is objective results such that anyone will know that the learning goals are being met; but this *need not be quantifiable*. If the faculty identify as an important result that which is not quantifiable, the process simply asks them to specify some objective means to demonstrate that the results are happening as intended.

10. **Q. Does student assessment information results affect faculty evaluation?**
 - A. No. We're focusing on the classroom level. Assessment is informed by the expertise and professional judgment of the faculty. Faculty in an academic division or program, interpreting the results of an assessment measure, might collectively decide to give more attention to certain outcomes, and might even recommend changes in pedagogy.

11. **Q. Why is the Higher Learning Commission making us assess?**
 - A. Right now, higher education is concerned with two national issues: the learning college and accountability. Most faculty have been engaged in some type of assessment throughout their teaching career and have found it to be a tool for understanding what their students are learning.

12. **Q. Are adjunct faculty involved?**
 - A. Yes, by all means. All faculty, full and part-time, are involved in student learning. We have many creative and dedicated adjunct faculty at NCTA.

13. Q. What is the connection among the various levels of assessment?

- A.** The focus of assessment is student learning. The most significant educational interaction happens between students and faculty in the classroom. The individual class section is part of a course, and courses are parts of programs. These levels reflect different, yet interrelated, facets of a student's education.

14. Q. How will assessment improve learning?

- A.** Assessment is a tool. However, it is a tool by which we can communicate with our students about learning with learning opportunities and ongoing feedback. Assessment does not accomplish learning – but it provides information to the student and the faculty who may use it to improve learning.

15. Q. How does classroom assessment relate to program/discipline assessment, and how does program/discipline assessment fit in with the College's overall assessment efforts?

- A.** Classroom assessment involves assessing student learning in a particular course. This can be accomplished using Classroom Assessment Techniques (CATs), which are quick, ungraded, classroom assignments used to provide feedback for determining student understanding of particular lessons. It is an ongoing process with the primary purpose of improving course-level instruction and student learning.

This is accomplished through an annual process where each program/discipline designs and implements an Assessment Plan, measures learning outcomes, analyzes the data collected, communicates the information, and uses these results to develop an action plan aimed at improving student learning.

College assessment efforts include classroom assessment, program/discipline assessment, and assessment of general education. The goal of assessment of student learning at NCTA is to improve student learning and support the College in fulfilling its educational mission. Assessment provides evidence of how well NCTA is meeting its mission and helps identify areas for improvement.

16. Q. How many faculty of a given program should participate in the assessment process?

- A.** All faculty, both full time and adjunct, should participate in assessment. All have a stake in the success of their respective program or discipline.

17. Q. Does an Assessment Plan have to be prepared for each course within a program/discipline or within a sequence of courses?

- A.** No, only one assessment plan is required for an entire program/discipline or sequence of courses. This plan should reflect the cumulative learning outcomes for the students in the course. Nonetheless, to achieve this goal, a particular course within a program/discipline may become the focus of the Assessment Plan. For example, to assess the cumulative learning outcomes for students who have completed composition courses at NCTA, the composition program may decide to measure the achievement of students completing English

18. **Q. If a program/discipline is offered every term, is the division required to have a plan for each term?**
- A. No, data and results only have to be gathered, analyzed, and reported to the Division and College Assessment Committees once during each yearly cycle. A division may decide, for internal purposes, to implement a plan each term but only the yearly plan should be submitted and reported to the Division and College Assessment Committees.
19. **Q. Can a program validation be moved from one year to the other?**
- A. Although not recommended, if circumstances necessitate the change, such an enrollment or scheduling change within a program/discipline may occur. A request in memo form from the division chair should be made to the Assessment Committee requesting approval of the change.
20. **Q. What's the purpose of Program Validation?**
- A. In campus statements of mission and goals, we have committed to providing our students with excellence in student learning and preparation to meet the world. Validation reveals our linkages between programs and the community it serves. Validation contributes to planning for the future of our programs. All together, it promotes campus wide understanding of the contributions of each program to the mission of the college.
21. **Q. How, why, or when would or should a division rotate courses to be assessed?**
- A. Faculty within a division may decide to assess student learning in one or more courses as a means to gain insight into the level of success of student learning throughout the program. There is no real rule that courses need to be rotated.
22. **Q. How do faculty within a division identify student learning outcomes?**
- A. Some learning outcomes can be mandated by outside agencies or advisory boards. Others are identified through discussion among faculty who have tried to answer the question of what knowledge or skills their students should demonstrate upon exiting the course or program. Learning outcomes inform our curriculum, teaching, and assessment.
23. **Q. Who chooses lead instructors for assessment in the division/discipline?**
- A. This is a divisional decision. Typically the division chair would make this decision.
24. **Q. Where do lead instructors or division chairs submit their assessment plans?**
- A. Plans are submitted to the NCTA Assessment Committee.
25. **Q. Where can we get help for developing an assessment plan?**
- A. The Assessment committees are here to help. There are a number of individual members of the Assessment Committees who, through research, attending conferences, and hands-on experiences, have gained expertise with assessment of student learning. The committee as a whole and these individuals will be glad to do what they can to help.

26. Q. What is a program outcome?

- A.** Think about what your students will need to be able to DO “out there” (in the rest of life) that you are responsible for in your program?”

When developing your program outcomes, encompass several levels of learning through the learning sequence of the program. One program outcome will encompass more than one course. Look at the big picture, not tiny details of skills that could be checked off.

27. Q. What’s the difference between assessment and evaluation?

- A.** See the chart that shows the differences

28. Q. What’s the difference between an objective and an outcome?

A. Objectives describe skills, tools, and content that enables a student to achieve the outcome. Objectives are teacher-centered. Objectives may be impossible to assess because they can often be numerous, specific, and detailed.

Outcomes describe the overarching product(s) that students will generate by applying skills, tools, and content. Outcomes are learner-centered. Outcomes require the use of higher-level thinking such as analysis, synthesis, and evaluation in order to demonstrate the student’s ability to apply the skills, tools, and content in authentic contexts.

Outcomes can be assessed. They are products that can be observed as a behavior, attitude, skills, or discrete useable knowledge and can be measured against criteria (rubric, checklist, Likert scale, survey).

Assessment and Evaluation

Assessment is the analysis and use of data by students, faculty, and/or division to make decisions about improvements in teaching and learning.

Evaluation is the analysis and use of data by faculty to make judgments about student performance. Evaluation includes the determination of a grade or a decision regarding pass/fail for an individual assignment or a course.

Examples

Assessment	Evaluation
A faculty member provides feedback to a student regarding performance on an examination. The student uses that feedback to study differently in order to improve learning and performance.	A faculty member corrects an examination and assigns a grade of 82% to a student.
A team of faculty members analyze examination results of all students in a course and discovers that 65% of the students did not demonstrate understanding of an important concept. Faculty members investigate possible causes and plan changes in teaching/learning strategies to improve student understanding.	Pop quizzes are given in a class to determine if students have read sections of the text that cover important concepts. Simple Pass/Fail grades are assigned and tallied at the end of the term. The quizzes count for 5% of the total grade.
A student delivers an oral presentation in class. The faculty member provides a critique of delivery and content so that improvements may be made in the student's subsequent presentations.	A student delivers an oral presentation in class. The faculty member provides a critique of delivery and content accompanied by a grade for the assignment.
A faculty member analyzes the results of oral communication checklists completed for all students in the course section who delivered oral presentations in class in order to determine opportunities for improving teaching and learning.	An Allied Health faculty member uses a rating scale to assign numbers (1-4) that indicate the level of achievement of clinical criteria based on observation of a student's performance of patient care.
The class attendance record indicates that a student has been absent multiple times. The faculty member advises the student in order to facilitate improved attendance, as studies suggest that regular class attendance contributes to student success.	Points are deducted from a student's grade for each class absence in accordance with a division policy.
Students are videotaped interacting with the children in the Early Childhood Education Centers. They view their videotapes and develop self-assessment narratives in which they describe and evaluate their performances. They then develop specific plans for improvement.	Students are videotaped interacting with children in the Early Childhood Education Centers. A faculty member evaluates each videotaped performance based upon course criteria and assigns a letter grade.
A student reads another student's essay and gives feedback on the content and correctness of the essay as a way to improve the writing.	A faculty member reviews a student peer reader's feedback and assigns a point value to the documentation to indicate satisfactory completion of the assignment.

Created by Sinclair Community College, Dayton, Ohio.

General Education Outcomes

(From these goals, divisions /programs will identify which courses will address these goals. The syllabi for each course will state the designated goal with measurable learning outcomes and the approach by which the learning outcome will be identified.)

Philosophy Statement for General Education

General education is part of the academic experience that builds students' growth as citizens and professionals. General education instruction engages students in independent and creative thinking, promotes open-mindedness and understanding of different points of view, gives confidence and inquisitiveness to explore ideas and values, promotes the passing of sound judgment, encourages the consideration of ethical and practical consequences of actions, and facilitates wisdom.

NCTA General Education Learning Outcomes and Definitions¹

Intellectual and Practical Skills

1. **Inquiry and analysis** - Inquiry is a systematic process of exploring issues/objects/works through the collection and analysis of evidence that result in informed conclusions/judgments. Analysis is the process of breaking complex topics or issues into parts to gain a better understanding of them.
2. **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.
3. **Creative thinking** - Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.
4. **Written communication** - Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.
5. **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.
6. **Reading** - Reading is "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (Snow et al., 2002). (From www.rand.org/pubs/research_briefs/RB8024/index1.html)
7. **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. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

¹ Definitions excerpted with permission from *Assessing Outcomes and Improving Achievement: Tips and Tools for Using Rubrics*, edited by Terrell J. Rhodes. Copyright 2010 by the Association of American Colleges and Universities

8. **Information literacy** - The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - Adopted from the National Forum on Information Literacy
9. **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.

Personal and Social Responsibility

10. **Civic knowledge and 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. It means promoting the quality of life in a community, through both political and non-political processes." (Excerpted from *Civic Responsibility and Higher Education*, edited by Thomas Ehrlich, published by Oryx Press, 2000, Preface, page vi.) In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.
11. **Ethical reasoning** - Ethical Reasoning is reasoning about right and wrong human conduct. It requires students to be able to assess their own ethical values and the social context of problems, recognize ethical issues in a variety of settings, think about how different ethical perspectives might be applied to ethical dilemmas and consider the ramifications of alternative actions. Students' ethical self identity evolves as they practice ethical decision-making skills and learn how to describe and analyze positions on ethical issues.

Integrative and Applied Learning

12. **Integrative and applied learning** - Integrative learning is an understanding and a disposition that a student builds across the curriculum and co-curriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situations within and beyond the campus.

Glossary of Operational Terms

Academic Achievement: Student performance of program and general education outcomes; measured by various assessment methods pertaining to the stated outcomes.

Assessment: Assessment is an ongoing process, aimed at improving student learning and quality educational programs. It involves developing criteria and high standards for learning; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve learning.

Benchmark: A description or example of student or institutional performance that serves as a standard of comparison for evaluation and judging quality.

Bloom's Taxonomy of Cognitive Objectives: Six levels arranged in order of increasing complexity (1=low, 6=high)

1. Knowledge: Recalling or remembering information without necessarily understanding it. Includes behaviors such as describing, listing, identifying, and labeling.
2. Comprehension: Understanding learned material and includes behaviors such as explaining, discussing, and interpreting.
3. Application: The ability to put ideas and concepts to work in solving problems. It includes behaviors such as demonstrating, showing, and making use of information.
4. Analysis: Breaking down information into component parts to see interrelationships and ideas. Related behaviors include differentiating, comparing, and categorizing.
5. Synthesis: The ability to put parts together to form something original. It involves using creativity to compose or design something new.
6. Evaluation: Judging value of evidence based on definite criteria. Behaviors related to evaluation include: concluding, criticizing, prioritizing, and recommending. (Bloom, 1956).

Capstone Course: A capstone could be a senior seminar or designated assessment course where program learning outcomes can be integrated into assignments.

CATs: Classroom assessment techniques are usually non-graded methods used in the classroom (little class time is taken) to ascertain whether or not students have achieved a course objective or how much prior knowledge students have of a concept. These methods include a minute paper, muddiest point, confidence survey, and a paper prospectus. They can only be used in an assessment program if the method used directly addresses a program or general education outcome (not course objective) and a detailed observation can be made or quantified for future reference and comparison. (Classroom Assessment Techniques, 1993).

Classroom Assessment: The system and on-going study of what and how students are learning in a particular course often designed by individual faculty who wish to improve their teaching of a specific course. Classroom assessment differs from tests and other forms of student assessment in that it is aimed at improved student learning and course improvement, rather than at assigning grades.

Closing the Loop/Feedback Loop: closing the loop is the process by which assessment results are used in programmatic and campus-wide decisions to impact student learning. In other words, it provides data/evidence for decisions for changes in pedagogy and curriculum – taking relative feedback and doing something with it.

Community: A community is the collaboration and inquiries among individuals to share ideas, find solutions, and build innovations regarding student learning.

Competency-Based Assessment: An assessment of a student’s performance/competency as compared to a specific learning outcome or performance standard. Competencies are assessed by the instructor to prove competence in isolated tasks; for example, do a minimum number of tasks; minimum level of proficiency. These can be assessed by demonstration and check-off in the classroom or lab when the student is ready.

Content-Based Assessment: The purpose is to assess knowledge in a content framework by assigning a grade and identifying top students. It is assessed by the class (curve) or the instructor (%) by a standard determined by the instructor or test developers using a quiz or objective test weekly, midterm, final, etc.

DACUM: Developing Curriculum: The DACUM process for occupational analysis involves local men and women with reputations for being “top performers” at their jobs, working on a short-term committee assignment with a facilitator. Workers are recruited directly from business and industry. These workers become the Panel of Experts who collectively and cooperatively describe the occupation in the language of the occupation.

The Panel works under the guidance of a facilitator for two days to develop the DACUM Research Chart. The chart contains a list of general areas of competence called DUTIES and several TASKS for each duty. Brainstorming techniques are used to obtain the collective expertise and consensus of the committee. As the Panel determines each task, it is written on a card. The cards are attached to the wall in front of the Panel. The completed chart is a graphic profile of the duties and tasks performed by successful workers in the occupation.

The Panel also identifies the general knowledge and skills required of successful workers; the tools, equipment, supplies, and materials used, the important behaviors essential for success, and the future trends and concerns likely to cause job changes. The process produces superior results for all occupational levels.

Direct Assessment Methods: Assessment that requires students to display their knowledge and skills as they respond to the instrument itself. These methods include licensure test results; capstone course portfolios, presentations, and entry and exit test results. Objective and performance measures are both types of direct assessment methods. Direct assessment may also be quantitative (numerical scores) or qualitative (descriptions).

Embedded Questions to Assignments: Questions that are related to program learning outcomes are embedded within course exams. It is a means of gathering information about student learning that is built into and a natural part of the teaching-learning process. It is often used for assessment purposes in classroom assignments that are evaluated to assign students a grade. This process can assess individual student's performance or aggregate the information to provide information about the course or program; can be formative or summative, quantitative, or qualitative. Example: as part of a course, expecting each senior to complete a research paper that is graded for content and style but is also assessed for advanced ability to locate and evaluate web-based information.

Evaluate/Evaluation: Definition 1: Evaluation uses assessment information to make an informed judgment on such things as: whether students have achieved learning goals that we've established for them; the relative strengths and weaknesses of our teaching/learning strategies; or what changes in goals and teaching/learning strategies might be appropriate. Assessment results alone guide us; evaluation forms our decisions. Definition 2: Evaluation is used to investigate and judge the quality or worth of a program, project, or other entity, rather than student learning. Under this definition, evaluation is broader than assessment.

Formative Assessment: Assessment that takes place so that feedback can be given prior to the completion of the performance (program), which enables the student to modify and improve the student performance (program).

Goals: Goals are general aims or purposes of a program and its curriculum. Effective goals are broadly stated, meaningful, achievable, reachable and timely. Goals provide a framework for determining the more specific educational outcomes of a program and should be consistent with program and institutional mission. Goals are what we "wish" for our programs and students. Goals require outcomes to provide evidence of how to reach the goal.

Grades: A mark that signifies the overall rating of student performance on an assignment. It is comprehensive in that it includes the rating of all student work on the assignment; it cannot be used as a method of assessment as it does not specifically pertain to a single objective; however, individual Performance Assessment Tasks (PATs) used to assess specific outcomes can be aggregated into a grade.

Indirect Assessment Methods: Assessment that requires students to reflect upon their learning rather than demonstrating what has been learned. Surveys; interviews; number of students successfully transferring; graduation rates; placement data; advisory committee evaluation; and feedback from students, graduates, or employers are typical indirect methods.

Matrices (Formative and Summative (F&S Charts): Matrices are used to summarize the relationship between program outcomes and courses, course assignments, or course syllabus outcomes to examine congruence and to ensure that all outcomes have been sufficiently structured into the curriculum.

Mission Statement: The mission statement is the initial point of reference for a program. It is a brushstroke statement (not measurable) of the general values and principles which guide the curriculum and the larger context in which more specific curricular goals will fit. In broad terms, it is your program's vision that will set a tone and philosophical position of what you do, for whom you do it, and how you will get it done. It addresses the following questions:

1. What are the general values and broad principles that will guide the program?
2. What are the general characteristics and abilities of the ideal graduate?
3. Whom will the program serve and how?
4. In what specific ways is the program mission consistent with the college's mission and strategic plan?

Objectives: Objectives describe what learners will be able to do at the end of instruction, and they provide clear reasons for teaching. When writing objectives be sure to describe the intended result of instruction rather than the process of instruction itself.

Observations: Observations can be of any social phenomenon, such as student presentations, students working in the library, or interactions at student help desks. Observations can be recorded as a narrative or in a highly structured format, such as a checklist; and they should be focused on specific program outcomes.

Outcomes: Program outcomes are the knowledge, skills, and abilities students should possess when they graduate from a program. They are answers to the question, "What should program graduates know and be able to do *at the time of program completion?*"

When thinking about program outcomes, it might be helpful to consider where program graduates should be within three to five years of graduation. Should they be practitioners in the profession of the discipline? Should they have entered the work force prepared for entry-level jobs? Should they be in a graduate or professional degree program? Should they have passed a licensure or certification exam in the field? The answers to questions such as these can help program faculty focus on the knowledge, skills, and abilities that will best prepare students for their next educational or professional endeavors.

Performance Criteria: Student learning outcomes need to be measurable. Ask, "What are the conditions for achievement? How will we know the project, task, lab, and report development was successful?" This is not a number or percentage. Develop a narrative.

Portfolio: A portfolio is a systematic and organized collection of a student's work that exhibits to others the direct evidence of a student's efforts, achievements, and progress over a period of time. The collection should involve the student in selection of its contents, and should include information about the performance criteria, the rubric or criteria for judging merit, and evidence of student self-reflection or evaluation. It should include representative work, providing a documentation of the learner's performance and a basis for evaluation of the student's progress. Portfolios may include a variety of demonstrations of learning and have been gathered in the form of a physical collection of materials, videos, CD-ROMs, reflective journals, etc.

Primary Trait Analysis (PAT): PAT is a rubric that specifically addresses desired outcomes and scores the achievement of those outcomes using a detailed description of the degree to which the outcome has been achieved.

Program and General Education Outcomes Validation: This step of the process seeks to determine if program and general education outcomes are appropriate to meeting current academic, business, trade, and/or professional/technological requirements. A well-executed program outcome validation study will answer the question:

“Are the program outcomes consistent with expectations of employers, transfer institutions, entering students, and the communities of interest?” Program Outcomes Validations studies are required of all programs every three years.

Program Assessment: A combination of assessments techniques, data collection and analysis about student achievement for learning outcomes at the classroom and course level, and leading to improvement of the academic program.

Reliability: Reliability insures that the instrument or results from the instrument measure the desired outcome consistently over time.

Scoring Rubrics: A rubric describes a specific set of criteria that clearly defines for both student and teacher what a range of acceptable and unacceptable performance looks like. Criteria define descriptors of ability at each level of performance and assign values to each level. Levels referred to are proficiency levels which describe a continuum from excellent to unacceptable product that delineates criteria used to discriminate among levels is developed and used for scoring. Generally two raters are used to review each product and a third rater is employed to resolve discrepancies.

Student Learning-Centered Outcome (LCO): The purpose of LCO is to increase learning by demonstrating evidence of intended outcomes. Learner-centered describes up front what the student will be able to DO (in the rest of life) with what he learns in a course or program. The students will engage in meaningful work projects, portfolios, presentations, exhibits, etc., that require synthesis of understanding and skill development and are assessed by students, peers, instructor, stakeholders, with clearly identified qualitative criteria. LCO is assessed priorly, continuously, and summatively. While some believe competencies and outcomes to be the same things, they are not. The intended learning outcomes justify the course content. They give it purpose beyond learning content for the sake of content.

Examples of Outcomes:

- **Math:** compute using arithmetical, algebraic, geometric, and statistical methods to solve problems.
- **Ethics:** Identify and analyze real world ethical problems or dilemmas and identify those affected by the dilemma.
- **Culture and Equity:** Analyze and describe the concepts of power relations, equity, and social justice and find examples of each concept in the US society and other societies.
- **Team work:** Listen to, acknowledge, and build on the ideas of others.

Summative Assessment: The gathering of information at the conclusion of a course, program, or undergraduate degree to improve learning or to meet accountability demands. When used for improvement, impacts the next cohort of students taking the course or program. Example: examining student final exams in a course to see if certain specific areas of the curriculum were understood less than others.

Triangulation: Triangulation involves the collection of data via multiple methods in order to determine if the results show a consistent outcome.

Validity (validation): Validity refers to outcomes or instruments that are well grounded and are based upon evidence or fact.

Yearly Assessment of Intended Learning Outcomes for Student Achievement

Assessment is a method for faculty to collect feedback on how well students are learning. The purpose of assessment is to provide faculty and students with information and insights needed to improve student learning, teaching strategies, and curriculum. Assessment can be fun and most importantly, puts the responsibility of learning squarely on the student. It also opens a dialogue between the faculty and the student on the teaching/learning process. Overall, assessment is a process of self-reflection with an outlook towards improvement.

Faculty provide continuous feedback to students to help students improve their learning strategies and study habits so that they can become more independent, successful learners. The conversations between and among faculty, students, and other stakeholders provide an excellent way to share best practices.

Continuous Improvement for Student Learning Through a Culture of Evidence, Inquiry, Teaching and Learning.

1. PLAN – Identify intended Learning Outcomes and Benchmarks
2. APPROACHES – Identify measures selected for program and General Education Outcomes
3. DATA – Gather, exhibit, and present on projects or information gained
4. SHARE – Review and discuss data

ANNUAL Student Learning and Success PLAN

1. All divisions/programs will assess the 12 general education outcomes during the academic year.
2. Identify the course(s) or sequences of courses in the curriculum that assess each of the outcomes selected for the assessment period.
3. Identify the tools such as industry certifications testing, formative/summative assessment instruments, final projects, site supervisor evaluation of student performance, portfolio review, or other means the division currently uses. For example, course assignments, labs, rubrics, portfolios, etc.
 - a. Verify that selected assessment methods are valid and reliable tools for documenting student academic achievement
 - b. Ensure that fulltime and adjunct faculty who are teaching the same courses are using the same or equivalent assessment tools.
4. Determine the program/ division standard (benchmark) for student academic achievement for each outcome and assessment method.

Benchmarking:

A minimum performance level that students are expected to achieve. Although a benchmark is expressed as a percentage, the percentage does not translate to a letter grade. (For example, seventy-five percent (75%) does not translate to a grade of "C".) Instead, the benchmark is the number of students who successfully achieved the program and/or course outcome.

Example:

Track: Network Administrator

Learning Outcome: Determine project requirements of a computer network system.

Benchmark: 75%

Framework: Seventy-five (75%) of the students should be able to perform this task.

If the percentage is significantly lower than 75%, re-evaluate teaching strategies, curriculum, and assessment instruments. If the division achieves 75%, the above could still be re-evaluated for ongoing improvement.

Review and Analysis

Faculty in your division/program will meet each term to review and consider assessment findings gathered from target course sections or representative samplings of students.

The NCTA assessment committee will review, at least, once annually analyze the results of **each** assessment method to determine if

1. The assessment methods were valid, e.g., did the methods measure whether or not the outcomes were achieved?
2. Students are achieving the program outcomes.

Meetings with division/program faculty should include discussion pertaining to

1. What worked (best practices)
2. What didn't work
3. Review of assessment methods/instruments
4. Teaching strategy revisions, curriculum instrument revision; curriculum revisions

Assessment and Data Collection

End-of-Year Notes

These notes are for the **Division Chair or designee** to use when preparing the **Annual Program/Divisional Assessment Report**.

Procedure:

1. Division/Program faculty will administer selected assessment methods in target courses or representative samplings of students.
2. Faculty will gather assessment data from each course selected. Suggestions:
 - **Discover** – Faculty and division chair talk to one another to discover when learning is best. These stories are told as richly as possible. Share classroom experiences, student dynamics, and insights – reflect on the positive.
 - **Vision** – Encourage faculty to envision the learning as if the peak moments discovered in the ‘discover’ phase were the norm rather than the exception.
 - **Design** – Empower faculty to design pedagogy and learning experiences that were envisioned in the above conversations.
 - **Deliver** – Implement the changes.

Ask a person at the meeting to capture and synthesize the conversation in writing (take notes). These conversations and thoughtful feedback will provide evidence needed to drive the curriculum and ensure continuous improvement in a given program/ division. These conversations can expand to include industry partners, articulation partners, such as high school to college, and other colleges. Conversation groups can include adjunct faculty, students, and faculty from other divisions who provide service courses to your discipline. Sharing feedback and best practices fosters continuous improvement in helping students learn – serving others through inquiry and innovation.

Data Based Decisions (<http://ncta.unl.edu/web/ncta/assessment-management>)

Below is a calendar of when reporting for each category should be entered. This will help provide a systematic process for data processing and collection for the college as a whole. Process for input will be as follows:

Send data for categories by the 15th of June to the Deans office

Data will be entered by the 30th of June

For example: Input from Division faculty should be sent to the administrative assistant in the Dean’s office by June 15th. Information will be entered into the location by June 30th.

Input from division/faculty

June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019

Faculty will meet annually with the Dean during Academic Council to discuss the status of the program and milestones.

Inputs from Students	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 End of course surveys will be compiled and reported annually.
Input on Student Performance	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Analysis of student success will be measured and recorded at the end of each academic year.
Input from peer institutions	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will visit peer institutions over the summer.
Input from Industry	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will meet with advisory council during the fall to evaluate industry needs and trends.
Input from University of Nebraska	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will discuss articulation and needs with the University of Nebraska College of Agriculture and Natural Resources (CASNR) each November.

Outcomes Feedback

Action Statement	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will review the assessment and outcomes providing a mechanism that is course and program specific looped back to control the evolution of the program
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End of Year Report (What to capture for your record)

1. Year
2. Courses or student groups that were assessed
3. General Education Outcomes that were assessed
4. Program outcomes that were assessed
5. Percentage of students who achieved the outcome (benchmark) relative to the program/division benchmark.
6. Description of best practices for outcomes that meet or exceed the benchmark
7. Description of strategies to improve student achievement for any outcomes(s) where students fall below the program/division benchmark. Faculty will implement these strategies within the following year.
8. Follow-up (will be included in future reports). Discuss how successfully the strategies in #7 worked. Include benchmarks.

Summary of Assessment Activities

The NCTA Assessment Committee prepares the Summary of Assessment Activities and submits the summary to the Dean.

College Assessment Committee Report Due End of Academic Year

College Assessment Committee representatives that are currently serving. List committee chair names first.

Name	Division/Program
Scott Mickelsen	Associate dean
Doug Smith	Ag Production - AnSci
Brad Ramsdale	Ag Production – Agronomy/Horticulture
Ricky S. Barnes Wach	Vet Tech
Jeremy Sievers	Agribusiness Management
Eric Reed	General Education

1. How have faculty and divisions interacted with the NCTA Assessment Committee?
2. How have you encouraged and supported the assessment of student learning with your division adjunct faculty?
3. How have you encouraged and supported the assessment of student learning with your full-time faculty?
4. How have you facilitated course and program assessment in your division?
5. Which courses in your Division participated in Gen Ed outcome assessment?
 - Intellectual and Practical**
 - Inquiry and analysis
 - Critical thinking
 - Creative thinking
 - Written communication
 - Oral communication
 - Reading
 - Information literacy
 - Quantitative literacy
 - Problem solving
 - Personal and Social Responsibility**
 - Civic knowledge and engagement
 - Ethical reasoning
 - Integrative and Applied Learning**
 - Integrative and applied learning
6. How have you increased your division’s faculty understanding of assessment as a critical component in becoming more learner-centered?

Analysis and Communication of Assessment Findings

Analysis

Thorough analysis of assessment results is essential in providing faculty an opportunity to systematically measure student learning. The program/division assessment committee reviews and analyzes the assessment results of each method used to determine if:

- The assessment method was valid; ie. did the method measure whether or not that outcome was achieved?
- Students are achieving the program outcomes
- Revisions to current assessment measures are necessary

Communication

The division shares the information with the NCTA Assessment Committee who may provide feed back relative to the interpretation of the results and proposed changes.

Once the NCTA Assessment Committee has collected the data and analyzed the results, the findings are communicated to the campus and appropriate external constituents via the College Assessment Website (<http://ncta.unl.edu/web/ncta/assessment-management>) and the annual Teaching and Learning Workshop. The data collected in the assessment process encourage continuous improvement in courses, curriculum, and academic programs.

Best practices across a variety of academic disciplines are obtained through:

- Peer-to-peer sharing from individual program assessment activities
- Campus sharing of assessment data

The College assessment provides documentation for both internal and external constituencies relative to the validity of the college's degree programs and the success of our students in achieving program outcomes.

Keeping the System Dynamic

A significant step in the assessment process is “closing the loop” – using assessment data to improve curricula. There is a growing confidence and commitment toward assessment in learning where faculty are increasingly engaged in collecting and applying assessment data in decisions about curriculum development: (i.e. course development, course sequencing, and curricula revision which leads to overall program improvement).

Assessment For Student Learning Reporting Checklist (for use of the program/discipline)

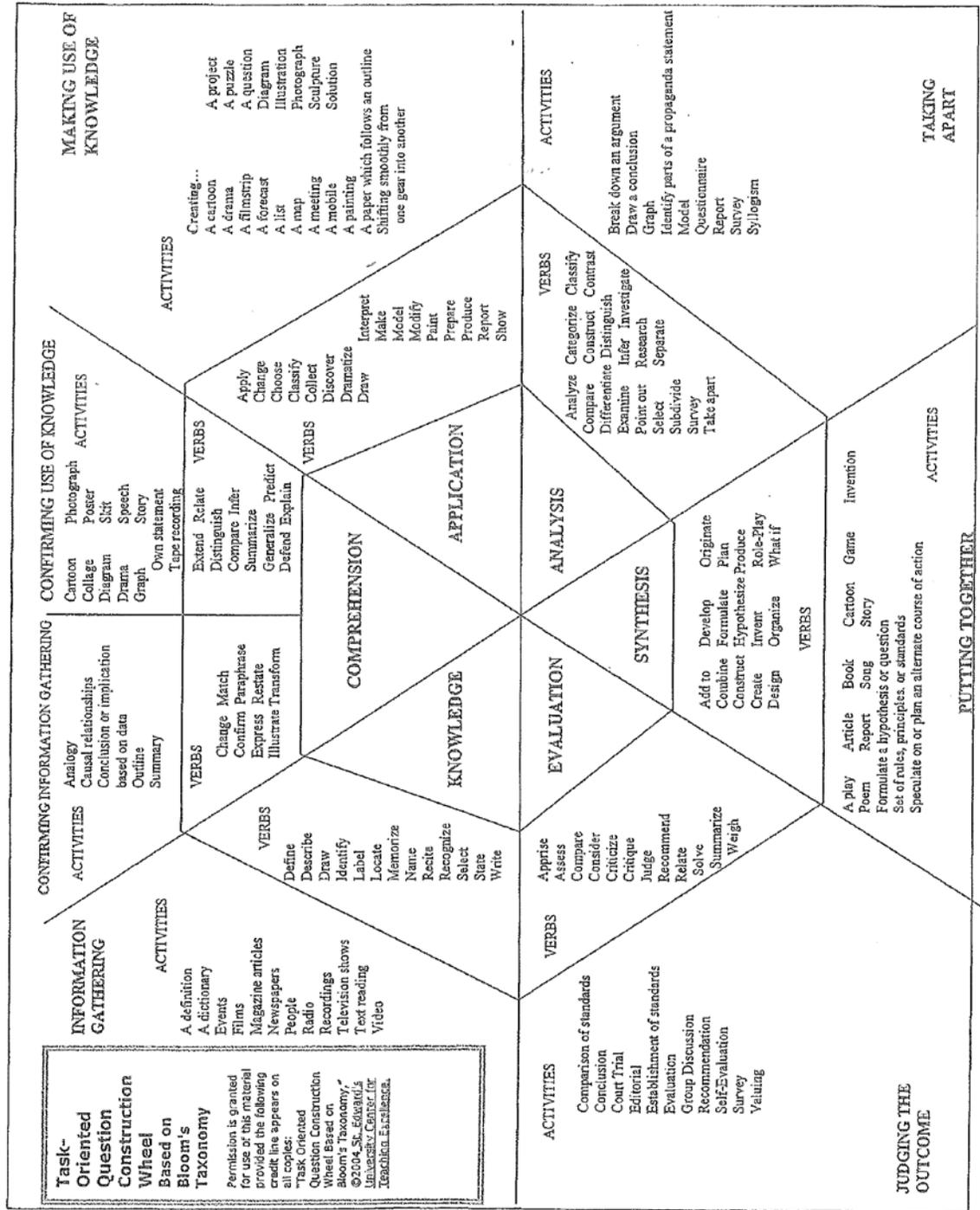
1. Does the program have a clearly stated mission that is consistent with the NCTA mission statement?
2. Does the program have clearly articulated general goals?
3. Does the program have specific, measureable program-level learning outcomes?
4. Are the program components (course, sequence of courses, related experiences) aligned with these learning outcomes?
5. Has the program assessed some of the defined program learner-centered outcomes?
6. Has the student been provided with multiple learning experiences to show evidence of learning – beyond objective teaching?
7. Has the program assessed some of the defined program learner-centered outcomes?
8. If yes, are the methods used to assess student learning direct, indirect, or both?

Note: Direct measures such as standardized tests, rubric scored projects or papers, embedded questions in classroom tests and assignments, and agency scoring of interns or graduates is preferred over indirect measures (i.e., surveys, interviews, etc.)

Bloom's Taxonomy

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Remember previously learned information	Demonstrate an understanding of the facts	Apply knowledge to actual situations	Break down objects or ideas into simpler parts and find evidence to support generalizations	Compile component ideas into a new whole or propose alternative solutions	Make and defend judgments based on internal evidence or external criteria
(Remember)	(Understand)	(Apply)	(Analyze)	(Evaluate)	(Create)
Count Define Describe Draw Label List Match Name Outline Point Quote Read Recall Recite Recognize Record Repeat Reproduces Selects State Write Memorize Arrange Duplicate Order Relate Tabulate	Associate Classify Compute Contrast Defend Describe Differentiate Discuss Distinguish Estimate Explain Extend Extrapolate Generalize Give Examples Infer Identify Indicate Interpret Locate Paraphrase Predict Report Review Rewrite Translate	Add Calculate Change Choose Classify Complete Compute Demonstrate Discover Divide Employ Examine Experiment Graph Interpolate Manipulate Modify Operate Perform Practice Prepare Produce Relate Research Organize Schedule Service Show Sketch Solve Subtract Translate Troubleshoot Write	Analyze Application Appraise Breakdown Calculate Categorize Combine Compare Connect Contrast Criticize Design Detect Diagram Differentiate Discriminate Distinguish Examine Experiment Explain Infer Outline Point out Question Relate Select Separate Subdivide Test Utilize	Arrange Assemble Categorize Combine Compile Compose Construct Create Design Develop Devise Drive Explain Formulate Generalize Generate Group Integrate Invent Formulate Manage Modify Order Organize Plan Prepare Prescribe Propose Rearrange Reconstruct Related Reorganize Revise Rewrite Setup Substitute Summarize Transform	Appraise Arbitrate Argue Assess Attach Award Choose Compare Conclude Contrast Convince Core Criticize Critique Decide Defend Determine Discriminate Evaluate Explain Grade Interpret Judge Justify Measure Predict Prioritize Rank Rate Recommend Referee Reject Select Summarize Support Test Value

Task-Oriented Question Construction Wheel



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Program Outcomes Validation and General Education Outcomes Validation

This step of the process seeks to determine if program and general education outcomes are appropriate to meeting current academic, business, trade, and/or professional/technological standards.

Validation studies and reports are required of all division every three years. These reports are submitted to the NCTA Assessment Committee. Feedback is provided from the NCTA Assessment Committee.

Program Revision

The faculty and the division chair decide on appropriate revisions to the program based on data received from internal and external review. Changes to the curriculum are implemented to enhance student academic achievement. Such changes may include, but are not limited to:

- Devoting more class or lab time to assisting students with difficult content or skill areas, for example, increasing/decreasing
- Changing a program’s course sequence to better prepare students for higher-level academic and technical knowledge and skills.

The data obtained through assessment activities will be shared and reviewed at multiple levels across the College including divisions, and the NCTA Assessment Committee. These reviews are designed to provide support to implementation of the assessment model through the sharing of best practices and the celebration of documented improvement in student academic achievement.

Nebraska College of Technical Agriculture Schedule of Program and General Education Learning Outcomes Validation Three-Year Cycle: <u>2013-2014, 2014-2015, 2015-2016</u> July 15 of respective year		
Start July 15, 2013	Start July 15, 2014	Start July 15, 2015
APS	AMS	Vet Tech
Horticulture	Comparative Medicine	

Review of the Program Outcomes Validation Report

The NCTA Assessment Committee reviews the Program Assessment reports, provides feedback, prepares a summary report, and forwards the reports (electronically and paper), and summary to the Division Chair and Dean.

The Summary Report will be sent to the Dean and communicated to the campus community.

Validation Process and Reporting Format For Program and General Education Outcomes Validation 3-Year Process

*The following pages give a detailed explanation of the **SECTION** of the **Validation Report***

TITLE PAGE

Division:
Division Chair:
Division Faculty Participating in the process:
Date Submitted:

EXECUTIVE SUMMARY

Short description of methods used to validate program outcomes and significant findings

SECTION 1: Introduction to the Program

Program/Discipline to include the following:

- Program goals
- Program mission statement
- Description of program(s)

SECTION 2: Review Resources

- Discuss adequacy of program resources and their impact on student learning
- Include action items that were found in the review of resources

SECTION 3: Validation of Program Outcomes

- Summarize the validation process (include which methods were external and which methods were internal)
- Include recommendations and action items that result from the review process

SECTION 4: Implication of Results and Specific Plans for Revision of Curriculum and/or Program Outcomes

Strive to keep the program outcomes to not more than nine (9) encompassing outcomes. *These are not competencies or objectives.*

HOW TO COMPLETE THE REVIEW PROCESS

RECOMMENDED STEPS AND TIMELINE FOR COMPLETING THE PROCESS

To begin your Program Outcomes Validation, obtain the following information from Student Services

- Unduplicated enrollment
- Number of degrees and number of certificates awarded
- FTEs – traditional and Dual Credit
- Graduate survey summary
- Transfer data
- Retention data
- Percent of distance learning

FALL SEMESTER

Review **PROGRAM OUTCOMES** as they are stated in the catalog to determine if they are measurable (Refer to Bloom's Taxonomy for action words related to levels of learning. Strive to keep the number of program outcomes to not more than nine (9).

What is a program outcome? Think about what your students will need to be able to DO "out there" (in the rest of life) that we are responsible for in this program?

When developing your program outcomes, encompass several levels of learning through the learning sequence of the program. One program outcome will encompass more than one course. Look at the big picture, not tiny details of skills/competencies that can be checked off a list.

Do your program outcomes:

- Measure multiple levels of learning?
- Support NCTAs mission?
- Map to the General Education outcomes at NCTA?
- Identify the knowledge and skills expected of graduates of the program, and what they will do when they graduate – not individual course outcomes?

Are your program outcomes:

- Consistent with expectations of employers, transfer institutions, entering students, and the needs of the communities of interest?
- Consistent with the purpose of the program as stated in NCTA's catalog?

Remember that a program outcome is broad and may address a number of courses and outcomes. Limit the number of program outcomes. If possible keep under nine (9).

REVIEW current CURRICULUM and DESCRIBE your STUDENTS

- Check courses for logical sequence
- No duplicate content except as needed for reinforcement
- Consider emerging issues in the field or discipline
- Evaluate the curriculum – is it comprehensive enough to meet the goals of the program and general education
- Recommend changes in the curriculum as appropriate. (This will provide questions for you during the validation for evidence that these changes need to be addressed.)

- Identify degrees and certificates included in the program – describing if there is a good mix of degrees, specializations, certificates, distance learning, options, etc.
- Identify strengths and weaknesses of the curriculum that support programs other than the one being evaluated
- Review relationships with high school (dual enrollment, tech prep) and colleges (articulation agreements)
- Describe the needs of your current students.

Evaluate Instructional Approaches

Describe the various instructional approaches that students experience in your program or discipline. **Highlight or showcase** those **best practices** that have been particularly effective in producing student learning. **(You can find some of the information on your Annual Assessment Reports.)** Describe how you know that these approaches were effective in producing student learning. Consider how you meet the differing learning styles of students in your program.

Describe how the instructional approaches are appropriate to the purpose of the program and the goals of the program or discipline. If students have access to your courses through various distance learning opportunities and instructional delivery systems such as web-based courses, describe how student learning is assessed in these courses.

EVALUATE MEASURES of STUDENT LEARNING that you are using.

Use the course-embedded assessments that you have in your program first. Go over tests, exams, reading assignments, oral presentation, capstone courses, etc., to make sure that they link to and assess student learning outcomes. Consider additional assessments you will carry out. You might look at transfer success data and employment/placement rates.

MEASURE the PROGRAM LEARNING OUTCOMES

A variety of methods should be used to evaluate the Program Learning Outcomes at program completion. The following are just a few examples:

INTERNAL	EXTERNAL
Division Review Committee	DACUM (Information available in the Assessment Center) This method is highly recommended.
Literature Review	Employer Survey
Exit Interview of Students	Graduate Survey
Exit Survey of Students	Special Interest Groups Survey or Interviews
	Success of Transfer Students
	Advisory Committee
	Accreditation Process
	Focus Group
	Industry Representatives

	Results of Licensing Exam
	Survey Like-Colleges
	Survey Institutions where articulations are held or are pending/possible

SPRING SEMESTER

Collection and analysis of data begins. Your Program Outcomes are the primary focus

Prepare Recommendations for Revisions of the Curriculum

As the results of the assessment of student learning are analyzed, you may begin to see the need to revise the curriculum and teaching strategies. Is the curriculum working for the students? Are they prepared when they enter the workplace or transfer to a 4-year institution? Meet with your ADVISORY COMMITTEE to discuss the curriculum. These committees involve constituents who understand the relationships among the courses of study, the currency of the curriculum, and the utility of the knowledge and skills gained.

If you conducted *employer satisfaction surveys* last term, decide what curricular revisions are indicated by your findings. For transfer programs, carefully consider transfer data on the success of NCTA students at 4-year institutions.

The assessment for student learning outcomes is at the *heart of the program validation*. Before you finalize your report, complete a **summary of what you have learned about student learning in your program**. In summary, indicate the following:

1. What learning **outcomes** (either program outcomes or general education outcomes, or both) were assessed
2. The **method** by which the assessment was done
3. The **assessment outcome**
4. **Recommendations** based on your assessment
5. Copy of your **FORMATIVE AND SUMMATIVE CHART**
6. **Actions** to be taken to improve student learning

This summary will form the basis for your **Action Plan** and will be included along with a copy of the **Executive Summary** and **Action Plan** sent to the Division Assessment Committees and Assessment and Curricular Directors. It will also be included in the **ANNUAL ASSESSMENT REPORT** to the Assoc. Dean prepared by the College Assessment Committee.

Revise Goals

Now that you have completed your study, you may find that your program or discipline outcomes need to be revised. Be sure to include your revised goals and outcomes in your final report and include the general education outcomes for your program. **You may key these in a table with the Existing Outcomes in one column and the Proposed in the next column. These will be reflected in next academic year catalog.**

Start Writing the Report:

Use the information that has been gathered from the activities described previously to complete the report.

SECTION 1: INTRODUCTION OF PROGRAM

- Degree, specialization, and certificates included in the program
- A narrative description of the program
- Courses that support programs other than the one being evaluated
- A description of your current students
- Specific industries or businesses served by the program
- Institutions to which your current students transfer
- Emerging trends in your field or discipline
- **Significant developments since the last evaluation**
- **The introduction should include a summary of the current curriculum, not a listing of courses that are found in the catalog.**

SECTION 2: REVIEW RESOURCES

Review the adequacy of resources for your program. In any case where you consider the resources that support your program could be improved, justify that *judgment by evidence* that student learning is being adversely affected.

- Consider the support personnel working in the program as well as the instructional and institutional academic support services that are unique and critical to your program.
- Are the classrooms and laboratory facilities adequate? If not, what do you recommend to make them adequate?
- Is the library collection of resources available adequate? If not, consult with the librarians to determine what needs to be done to improve the offerings.
- What about equipment and supplies? Again, if the data indicates that they are inadequate, describe what you recommend to improve the situation.
- Define any Action Items that were found as a result of this resource review.

SECTION 3: VALIDATION OF PROGRAM OUTCOMES

Describe the process used to validate the program outcomes. A chart of internal and external measures appears on page Explain how the program faculty approached the process of determining whether or not the current program outcomes were appropriate and met the needs of the students, the expectations of employers, transfer institutions, entering students, and the needs of the community of interest. Include information on all the parties involved in the validation process: outside employers, students, graduate advisory committees, etc.

Provide evidence of the processes used – DACUM charts, advisory meeting minutes, exit or graduate surveys, etc. These can be included as appendices. As the review process was being conducted, did recommendations for change appear in curriculum, in the terminology used in the outcomes, in the outcomes themselves? Include the F & S Charts and assessment measures that will be used to determine if students are meeting the expectations of the program's student learning outcomes. Define any action items that were found as a result of the validation process.

SECTION 4: IMPLICATIONS OF RESULTS

Specific Plans for Revision of Curriculum and/or Program outcomes

As a result, multiple measures are analyzed; recommendations based on the findings will start to cluster. Include in this section of your report the **actions taken** to improve the program or discipline during the evaluation process and provide an **ACTION PLAN** to accomplish the action items and recommendation you make.

As the action items and recommendations emerge, so will your **Action Plan**. Resist the urge to write the **ACTION PLAN** before the study is completed and recommendations are made. Action items and recommendations are placed throughout the report where the supporting data is reported. *Make sure that each Action Item and Recommendation is supported by the evidence you present.*

The Action Plan will include Recommendations that describe an action that will be taken to achieve the goals and outcomes of the program or discipline and to make the program more effective. The recommendations must be tied to supporting evidences in your report and be directly and clearly related to the goals and outcomes of your program or discipline, not college wide policies and procedures. Each recommendation should include an **action** to be taken, a **rationale** for the action, the title of the **person responsible** for taking the action, and a **due date**.

Your chair will report on the implementation of your **ACTION PLAN** one year after it is approved by the NCTA Assessment Committee. Therefore, recommendations should address those areas where you have some control or influence. Do not, for example, indicate that an action must be taken by “the college,” but name the person who will be responsible and accountable for carrying out the recommended action. Finally, remember this is your action plan. It will detail what you and your colleagues plan to do to improve the effectiveness of your program.

Write the Executive Summary

The intent of the **EXECUTIVE SUMMARY** is to allow readers from a variety of audiences to focus immediately on the most important findings of your review. Your summary should be concise and include the measures used to validate the outcomes and any major recommendations for actions that were found during the validation process.

Finalize the Review Report

After you have completed the report, it will be reviewed by the NCTA Assessment. The NCTA assessment committee, division, and college have the responsibility as stewards for the program being validated. They will be given an opportunity to review and provide feedback on the report; copies will be sent to them along with a comment sheet. A copy of all completed feedback sheets will be sent to the chair of your division.

The Executive Summary, Program Learning Outcomes Summary, and Action Plan will be forwarded to the NCTA Assessment Committee. You will be invited to attend the meeting at which your report will be discussed. The committee members may have questions to ask you about the report and may recommend amendments to the action plan. You will be notified by the NCTA Assessment Committee when your report is approved.

General Education Outcomes Validation

3-year process

Validate General Education Outcomes Internally

1. The NCTA Assessment Committee is comprised of representatives from each division. The committee validates the general education outcomes using broad-based involvement by faculty, staff, and administrators. The validation process seeks both internal (assessment committee) and external (advisories) input in reviewing and revising the general education outcomes.
2. The NCTA Assessment Committee reviews the general education outcomes as printed in the College Catalog and determines if they are current. For a statement to qualify as an outcome, the college must be able to prove by some measure that, upon completion of the program, the student has achieved the stated outcome. General education outcomes reflect current knowledge, skills, attributes, and standards faculty believe enhance the college learning experience and prove necessary skills to prepare the student for future studies or employment. The general education outcomes must be measurable.
3. The NCTA Assessment Committee reviews the data on general education outcomes provided in the **Program Validation Reports** to determine the degree to which the general education outcomes, as printed in the College Catalog, are deemed valid by the degree-granting programs.

Validate General Education Outcomes Externally

In addition to the above-noted review of general education outcome (Internal Review), general education validation activities must also include an independent review of the general education outcomes by discipline or subject-area experts not directly affiliated with the NCTA.

1. The General Education documents that general education outcomes are **valid** by:
 - Demonstrating that the outcomes are current and desired by faculty as well as other stakeholders
 - Demonstrating that the general education skills and abilities taught are what employers are looking for when they hire employees
 - Ascertaining if there are general education skills and abilities needed that are not being taught
 - Demonstrating that skills and abilities taught in the general education outcomes are what students need to succeed at other institutions of higher education.
2. The NCTA Assessment Committee determines the validity of the general education outcomes of the institution by using one or more of the following external methods: programmatic outcomes-based accreditation, external evaluation by industry or professional focus groups, DACUMs, employer outcomes surveys, or other appropriate activities.

Review and Revise Curriculum

1. The NCTA Assessment Committee reviews the results of the internal and external validation reviews and makes changes to the outcomes. The committee submits the proposed changes and current general

education outcomes to faculty, college wide, for review. Based on feedback received, the NCTA Assessment Committee may further revise the general education outcomes. The Committee has a final meeting with the faculty, campus wide, before submitting the final version of the **General Education Outcomes Validation Report**.

The NCTA Assessment Committee makes revision to the general education outcomes as necessary; consults faculty for additional feedback concerning the appropriate revision; and submits the **Executive Summary** to the college Dean.

Documentation:

The **General Education Outcomes Validation Report** is submitted every three years by **July 15**. The Report details the results of the Internal and External Reviews and describes changes that may be made to general education outcomes.

The General Education Outcomes Validation Report must include a completed **General Education Outcomes Matrix** documenting the contributions of each course in the curriculum toward the teaching and learning of prescribed outcomes. Additionally, the **General Education Outcomes Matrix** should be updated and submitted annually with requested curriculum revision.

Nebraska College of Technical Agriculture General Education Learning Outcomes Task Force

Charter: Rethinking the Goals of General Education Outcomes at NCTA

Purpose: To examine the current goals of the General Education Outcomes for currency, relevancy, and measurability.

Goals:

- To increase the visibility and importance of General Education at NCTA
- To define the desired outcomes for General Education

Contact for charter Questions – Leadership Advisory

Associate Dean	
NCTA Assessment Committee	

Tasks	Success Indicators
Review current General Education Outcomes at NCTA	
Review literature and practices at other colleges	
Follow state policy on General Education according to The Higher Learning Commission Statements.	
Consider the student enrollment in identifying the General Education Outcomes and the potential methods of assessment	
Develop a communication plan to inform the campus of General Education information and share final recommendations	
Tasks	Success Indicators
Verify that student competency in General Education will be consistent across the curriculum	
Decide to maintain or to revise the current General Education Outcomes	
Confirm that the outcomes are measurable	
Define General Education Outcomes and make	

recommendations to the NCTA Assessment Committee and then to Academic Council	
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***While this information may influence the curriculum, this task force will not be responsible for recommending changes to the current curriculum. Division chair and faculty will develop student learning outcomes for student learning relevant to the plan of study.**

General Education provides the knowledge, skills, and attitudes that all of us use and live by during most of our lives – whether as parents, citizens, lovers, travelers, participants in the arts, leaders, volunteers, or good Samaritans.

We owe it to our students to help them develop the competencies to link diverse areas of knowledge in practical application to unscripted, complex problems. Only then will they be prepared to act effectively and responsibly in the world.

Assessment Management/Program Insights

Data Based Decisions (<http://ncta.unl.edu/web/ncta/assessment-management>)

Below is a calendar of when reporting for each category should be entered. This will help provide a systematic process for data processing and collection for the college as a whole. Process for input will be as follows:

Send data for categories by the 15th of June to the Deans office

Data will be entered by the 30th of June

For example: Input from Division faculty should be sent to the administrative assistant in the Dean's office by June 15th. Information will be entered into the location(<http://ncta.unl.edu/web/ncta/assessment-management>) by June 30th.

Input from division/faculty	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
	Faculty will meet annually with the Dean during Academic Council to discuss the status of the program and milestones.
Inputs from Students	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
	End of course surveys will be compiled and reported annually.
Input on Student Performance	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
	Analysis of student success will be measured and recorded at the end of each academic year.
Input from peer institutions	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
	Faculty will visit peer institutions over the summer.
Input from Industry	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
	Faculty will meet with advisory council during the fall to evaluate industry needs and trends.
Input from University of Nebraska	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
	Faculty will discuss articulation and needs with the University of Nebraska College of Agriculture and Natural Resources (CASNR) each November.

Outcomes Feedback

June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019
Faculty will review the assessment and outcomes providing a mechanism that is course and program specific looped back to control the evolution of the program

Assessment Model Template

NCTA PROGRAM NAME Program Assessment

PROGRAM NAME Program Assessment links

PROGRAM NAME Mission Statement

PROGRAM NAME Philosophy Statement

PROGRAM NAME Assessment Plan

Learning Outcomes & Objectives

PROGRAM NAME Rubrics

Course/Program Experience Outcome Matrix

Outcomes Data

Data Based Decisions & Outcomes Feedback

PROGRAM NAME Mission Statement

PROGRAM NAME Philosophy Statement

PROGRAM NAME Assessment Plan

Student Input into the Assessment

- Curriculum Assessment
- Student Performance Assessment
-

Learning Outcomes & Objectives

Outcomes

Associate of Applied Science Objectives

Associate of Science Objectives

	PROGRAM NAME Objectives	IANR Priority	NCTA Value Statements	NCTA PROGRAM NAME Outcomes
1				
2				
3				
4				
5				
6				
7				
8				

IANR Priorities

Priority 1: The life sciences, ranging from molecular to global systems.

Priority 2: Sustainable food, fiber and natural resource systems that support a bio-based economy.

Priority 3: Economics and environments for a sustainable future.

Priority 4: Human capital development of children, youth and families.

NCTA Value Statements

1 NCTA values Nebraska's agriculture industry and its role in the global economy.

2 NCTA values the application of science through technology.

3 NCTA values entrepreneurship both on and off campus.

4 NCTA values the rural lifestyle and revitalizing rural communities.

5 NCTA values all people and their development.

NCTA PROGRAM NAME Learning Outcomes and Definitions²

Intellectual and Practical Skills

Personal and Social Responsibility

Integrative and Applied Learning

PROGRAM NAME Rubrics for Program-Level Outcomes

² Definitions excerpted with permission from *Assessing Outcomes and Improving Achievement: Tips and tools for Using Rubrics*, edited by Terrell L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities

Linking General Education Outcomes to Programs

GENERAL EDUCATION	Course	Course	Course	Course	Course	Course
Student Learning Outcome						
Inquiry and analysis						
Critical thinking						
Creative thinking						
Written communication						
Oral communication						
Reading						
Quantitative literacy						
Information literacy						
Problem solving						
Civic engagement						
Ethical reasoning						
Integrative learning						

“X” for courses or experiences in which student performance is used for program level assessment of the outcome.

- 1 Quiz
- 2 Exam
- 3 Essay, proposal, or position paper
- 4 Research paper or report
- 5 Portfolio
- 6 Oral report or presentation
- 7 Exercises
- 8 Project
- 9 Lab
- 10 Reading, research, and discussion/debate or Socratic dialogue/giving of reasons and evidence
- 11 Journaling

PROGRAM NAME Outcomes Data

Measurement Methods/Instruments

How do students demonstrate learning?

Institutional Planning & Alignment

Assessment Reporting & Tracking/Assessment Methods

Performance assessments are done in a variety of methods in the classroom. Students are graded on products and exhibitions such as:

Products

- Essay
- Portfolio
- Project
- Exam

Exhibition

- Speech
- Skill activity
- Oral Report
- Lab



Assessment Management/Program Insights

PROGRAM NAME Data Based Decisions (See Common Web Page)

Input from division/faculty	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will meet annually with the Dean during Academic Council to discuss the status of the program and milestones.
Inputs from Students	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 End of course surveys will be compiled and reported annually.
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Input from University of Nebraska	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will discuss articulation and needs with the University of Nebraska College of Agriculture and Natural Resources (CASNR) each November.

PROGRAM NAME Outcomes Feedback

Action Statement	June 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 Faculty will review the assessment and outcomes providing a mechanism that is course and program specific looped back to control the evolution of the program
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Resources