



## Program Assessment Plan

<http://www.caspercollege.edu/assessment/index.html>

**Instructions:** To submit an assessment plan for a specified program, please respond to each of the questions below. *Use as much space as you need to describe the program assessment plan.* Once this form is completed, please email it as an attachment to [kthatcher@caspercollege.edu](mailto:kthatcher@caspercollege.edu). For guidelines and/or assistance in developing a plan for assessing student learning, please contact Kathleen Thatcher or consult resources on the Assessment website at <http://www.caspercollege.edu/assessment/index.html>.

1. **Program:**            **Electronics Technology**  
**Department:**   **Electronics Technology**
2. **School:**           **Business and Industry**
3. **Person(s) Responsible for Developing Plan:**   **David Arndt**
4. **Email:**            **darndt@caspercollege.edu**
5. **Phone:**           **(307) 268-2521**
6. **Date Submitted:**       **February 16, 2011**

1. Does this program offer a distance learning ?  Yes  No

### A. Conceptual Assessment Plan Components

Assessment enables an understanding of what students are learning as a result of the program. Assessment findings can be used for a variety of purposes including making decisions regarding curriculum and instruction as well as providing feedback to students.

1. *State the department or program mission in terms of educational purpose or goals*

#### Electronic Program Mission

The Casper College Electronics Technology Department will provide the necessary training for its graduates to compete successfully in the rapidly expanding and changing field of electronics and robotics technology. This will be accomplished by: 1) providing the technical training required for successful employment in electronics or robotics technology. 2) The continual evaluation and adjustment of the electronics and robotics courses and the two programs to meet the needs of industry. 3) The recruitment, retention, advising, and development of qualified and reliable graduates.

#### Program Goals

- A. To provide comprehensive training in the field of electronics and robotics technology, so that the associate degree and certificate graduates are technically qualified to obtain employment in the electronics or robotics industry or an allied field.

- 80% of students who graduate from the electronics program are able to find employment in the electronics field, a related field, or are pursuing an advanced degree.
  - 80% of employers responding to a survey are satisfied with the knowledge and skills of the graduates of the electronics program.
- B. To provide the necessary training for graduates to continue on to advanced training in electronics technology in a four-year Electronics Engineering Technology program.
- 70% of the graduates of the electronics program will obtain a satisfactory rating on the electronics matrix.

2. *List the student learning outcomes for the program addressed by this plan. (Note: Please complete a separate Assessment Plan form for each program.)*

- A. Demonstrate the knowledge and skill that are required to write programs to manipulate a computer or computer related circuits.
- B. Demonstrate the knowledge and skills that are required to build and repair PC computers and laptop computers.
- C. Demonstrate the knowledge and skills that are required to install, troubleshoot, and connect fiber optic cable.
- D. Demonstrate the knowledge and skills that are required to interface sensors, program, and communicate with process control systems.
- E. Demonstrate the knowledge and skills that are required to interface sensors, program, and troubleshoot programmable logic controller circuits.
- F. Demonstrate the knowledge and skills to build, test, and troubleshoot basic electronic circuits.

3. *Explain the student learning outcomes relation to the unit mission and goals (i.e. Do the student learning outcomes reflect the unit goals and objectives, further the mission, are rooted in the academic discipline, etc.?)*

The student learning outcomes are a direct reflection of the skills that the graduates from the Electronics program will need to become successfully employed in the electronics industry or to continue onto a four-year degree at another institution. The student outcomes reflect the skills that are required to achieve the goals for the electronics program and the mission of the Electronics program.

4. *Describe how and by whom assessment findings will be used.*

The assessment plan will be used by the faculty of the Electronics program to review the courses and the course content in order meet the needs of the student for their future employment and advanced training. The data collected on a yearly basis will be used to make required changes in the Electronics program to insure that graduates from the Electronics program have the technical skills required for successful employment in the electronics industry or for advanced training at a four-year institution.

## B. Implementation Assessment Plan Components

It is important to create a detailed implementation plan that aligns each student learning outcome with each of the following items:

- (A) how/where program outcomes are learned,
- (B) what evidence/indicator(s) will be collected, including both direct and indirect evidence,
- (C) how the evidence/indicator(s) will be collected and by whom,
- (D) how the evidence/indicator(s) will be analyzed and by whom, and
- (E) how assessment findings will be communicated back to the academic unit's faculty and students and used to improve the program.

Please note, it is important that the implementation plan collects useful information and that the collection and analysis methods are manageable given the resources available in your academic unit.

1. *Instructions:* For each program-level outcome (not course objectives), please provide information for each category listed below. Both direct and indirect evidence/indicators should be utilized in your assessment plan. You are encouraged to utilize existing evidence/indicators when feasible to keep the process manageable. You should also collect evidence/indicators throughout the program and not just at the end.

Program Learning Outcome	A How/Where is outcome learned?	B Evidence/ Indicator(s) of Learning	C Collection method(s) for each source of evidence	D Analysis method(s) for each source of evidence	E Feedback Procedures (Faculty, staff & students)
A	ELTR 1770	Final Project	Course instructor	Comparison of grades	Analysis of data is made available to faculty and students
B	ELTR 2920	Final course grade	Course instructor	Comparison of grades	Analysis of data is made available to faculty and students
C	ELTR 2925	Final Exam	Course instructor	Comparison of grades	Analysis of data is made available to faculty and

					students
D	ELTR 1535	Test 2	Course instructor	Comparison of grades	Analysis of data is made available to faculty and students
	ELTR 2815	Test 3			
E	ELTR 1620	Practical Test	Course instructor	Comparison of grades	Analysis of data is made available to faculty and students
	ELTR 1700	Practical Test			

- Describe the responsibilities, timeline, and the process for implementing this assessment plan.

The department chair for the Electronics program will collect the data for the Electronics Matrix from the indicated course instructors during the fall semester each year. This data will be analyzed by the department chair and a report will be submitted at the required time.

### C. Global Design & Use

It is critical that program assessment plans be developed and approved by all faculty in the department. In addition, *include student input and external sources* (e.g., national standards, advisory boards, employers, alumni, etc.) in the development of the assessment plan(s).

- Describe the process through which your academic unit created this assessment plan.  
*Include:*

- Timeline regarding when or how often this plan will be reviewed and revised. (This could be aligned with your unit's departmental review schedule.)

The assessment plan will be reviewed on an annual basis and revised as needed, to correspond with the departmental review schedule.

- How students were included in the process and/or how student input was gathered and incorporated into the assessment plan.

Student exams, final grades, and practical tests are the basis of the assessment plan. These exams and tests along with final grades provide evidence of learning or student development.

- What external sources were consulted in the development of this assessment plan?

The Electronics Advisory Board and employers for electronic graduates were consulted and surveyed on the quality of the electronic graduates and the content of the electronic courses, through the use of the advisory board and employer surveys.

- d. Assessment of the manageability of the plan in relation to departmental resources and personnel.

The current assessment plan is manageable with the current resources and personnel of the Electronics Department.