



**LIST ALL COURSES REQUIRED AND IDENTIFIED COMPETENCIES**

Competencies								Course Number	Course Title
1	2	3	4	5	6	7	8		
X				X	X	X		CETT 1321	Electronic Fabrication
X	X			X	X	X	X	CETT 1331	Programming for Discrete Electronic Devices
X	X	X	X	X		X		CETT 1403	D.C. Circuits
X	X	X	X	X		X		CETT 1425	Digital Fundamentals
X	X	X		X		X	X	ELMT 1301	Programmable Logic Controllers

**COMPETENCY REFERENCES**

	<b>8 Basic use of computers</b>
	<b>7 Workplace Competencies:</b> resources; interpersonal skills; information; systems; and technology.
	<b>6 Personal Qualities:</b> A worker must display responsibility, self-esteem, sociability, self-management, integrity, and honesty.
	<b>5 Thinking Skills:</b> A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively.
	<b>4 Speaking and Listening:</b> Organize ideas and communicate orally; receive, attend to, interpret, and respond to verbal messages and other cues.
	<b>3 Arithmetic or Mathematics:</b> Perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.
	<b>2 Writing:</b> Communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.
	<b>1 Reading:</b> Locate, understand, and interpret written information in prose and in documents such as manuals, graphs, and schedules.

## SCANS Competencies Checklist

Academic Year: 2024-2025

SCANS COMPETENCIES FOR PROGRAM: Electronics Engineering Technology: AAS

Competency	Course where Competency is Assessed	Method of Assessment	Improvements as a Result of Assessment Findings
<b>1 READING:</b> Locate, understand, and interpret written information in prose and in documents such as manuals, graphs, and schedules.	Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.	Departmental Exams, Laboratory Exercises	Reading skills are satisfactory. The department will continue to integrate reading comprehension assignments into the curriculum.
<b>2 WRITING:</b> Communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.	Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.	Departmental Exams, Laboratory Exercises, Writing assignments	The department incorporates writing assignments-technical documentation, journal entries, and procedural documentation into the technical courses. All students participated in preparing and writing procedure and operations manuals
<b>3 ARITHMETIC OR MATHEMATICS:</b> Perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.	Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.	Departmental Exams, Laboratory Exercises	Some students required more instructor intervention and help than others. 80% of the students completed the project with normal instructor feedback and assistance on their first attempt. The class divided into two groups and each built an individual project. Both projects were completed successfully.
<b>4 SPEAKING AND LISTENING:</b> Organize ideas and communicate orally; receive, attend to, interpret, and respond to verbal messages and other cues.	Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.	Departmental Exams, Laboratory Exercises	All students successfully organized ideas and concepts from verbal lectures. Sophomore students completed an operations procedure with timelines, parts list, construction details, and operation instructions. All students faced challenges and found solutions to multiple problems during the semester.

Competency	Course where Competency is Assessed	Method of Assessment	Improvements as a Result of Assessment Findings
<p><b>5 THINKING SKILLS:</b> A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively.</p>	<p>Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.</p>	<p>Departmental Exams, Laboratory Exercises</p>	<p>90% of students correctly interpreted all 4 and 5 band color codes. 95% of students correctly identified 3 sources of DC voltage. 80% of students were able to correctly solve a circuit with 5 resistors. 96% of students correctly measured voltage and resistance. 90% correctly measured current. 92% of students were able to correctly calculate current, resistance, voltage and power.</p>
<p><b>6 PERSONAL QUALITIES:</b> A worker must display responsibility, self-esteem, sociability, self-management, integrity, and honesty.</p>	<p>Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.</p>	<p>Departmental Rubric based on students' performance in both the classroom and laboratory setting.</p>	<p>Sophomore students formed 2 groups and each group researched and built a project. 100% of students participated and worked collaboratively. Freshman students worked in pairs to begin researching and construction of a project.</p>
<p><b>7 WORKPLACE COMPETENCIES:</b> resources; interpersonal skills; information; systems; and technology</p>	<p>Technical courses throughout the program curriculum. Final assessment in CETT 2439 Capstone.</p>	<p>Departmental Rubric based on students' performance in both the classroom and laboratory setting.</p>	<p>Students performed above average as a group. Two separate groups completed individual projects. Both project leaders successfully coordinated their project. Both projects were challenging and 100% of students participated. The projects were successful and incorporated both hardware and software pieces.</p>
<p><b>8 BASIC USE OF COMPUTERS</b></p>	<p>CETT1331, CETT 1345</p>	<p>Software programming project</p>	<p>98% of students correctly constructed an algorithm using a high-level programming language. 89% of students successfully programmed using machine code. Collaborative group assignment was introduced.</p>