

COURSE ELT1110: SECURITY SYSTEMS 1**Level:** Introductory**Theme:** Communication Systems**Prerequisite:** ELT1010 Electro-assembly 1**Description:** Students install and demonstrate the fundamentals of sensors, control units and warning devices used in security systems.**Parameters:** Specialized equipment.**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • identify and compare different electronic systems used to secure people, property and information • describe and compare hardwired sensors 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • identification and comparison of security systems used to secure: <ul style="list-style-type: none"> – people – property – information. <p><i>Assessment Tool</i> <i>ELT1110–1: Presentations/Reports: Security Systems</i></p> <p><i>Standard</i> <i>Performance rating of 1 on each criteria</i></p> <ul style="list-style-type: none"> • comparing and describing the following security system sensors: <ul style="list-style-type: none"> – contact closure – motion sensor – thermal sensor – moisture sensor – light sensor. <p><i>Assessment Tool</i> <i>ELT1110–1: Presentations/Reports: Security Systems</i></p> <p><i>Standard</i> <i>Performance rating of 1 on each criteria</i></p>	<p>5</p> <p>35</p>

COURSE ELT1110: SECURITY SYSTEMS 1 (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • install and test a security system, evaluate circuit performance, and identify possible maintenance requirements • demonstrate established laboratory procedures and safe work practices • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • observation of performance when installing a security system • testing and validating circuit performance using voltmeter or continuity tester • explaining and maintaining various security systems. <p><i>Assessment Tool</i> <i>ELTLAB-1: Laboratory Practice, Parts 3 and 4</i></p> <p><i>Standard</i> <i>Performance rating of 1 on each criteria</i></p> <ul style="list-style-type: none"> • observed performance in following: <ul style="list-style-type: none"> – established laboratory procedures – personal safety precautions. <p><i>Assessment Tool</i> <i>ELTPSP: Assessment Checklist: Laboratory Procedures and Safety Practices</i></p> <p><i>Standard</i> <i>Performance rating of 1 on each criteria</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>55</p> <p>5</p> <p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Safety/Resource Management</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • demonstrate appropriate attitudes of personal safety. 	

COURSE ELT1110: SECURITY SYSTEMS 1 (continued)

Concept	Specific Outcomes	Notes
System Identification	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • distinguish between different types of security systems; e.g., monitored, standalone, closed circuit, automobile, personal • distinguish between various security devices; e.g., computer systems, hardwire, remote frequency system • demonstrate how to inspect various sensors; e.g., contact closure, motion, thermal, moisture detectors • demonstrate how to inspect various warning devices; e.g., dialer, siren, lights. 	
System Application	<ul style="list-style-type: none"> • explain and demonstrate how to install a security system. 	Home or auto security system.
Problem Solving	<ul style="list-style-type: none"> • demonstrate how to test and validate circuit performance using voltmeter or continuity tester. 	
Repair/Service and Maintenance	<ul style="list-style-type: none"> • explain/maintain various security systems. 	Battery testing, performance, reliability, stress testing, sensitivity testing.
Careers	<ul style="list-style-type: none"> • research careers in the security realm. • research areas of certification of installers and equipment • identify ethical points of view in using personal security systems. 	Be aware of possible negative implications.

