

# Training Course Summary

**Title:** Electronic Security System (ESS) Design

**Purpose:** This course is directed toward a variety of professional disciplines that typically make up a security design team including physical security specialists, anti-terrorism & force protection officers, engineers, technicians, planners, and project managers. Each student is given the basic knowledge and skills necessary to contribute to an ESS design effort.

**Description:** Students are given a solid foundation in all aspects of ESS technology and design. Basic theory, operation, and application of all ESS components including intrusion detection sensors, electronic entry control devices, video cameras, and illumination sources are explained and illustrated by instructors with extensive ESS qualifications and experience. Requirements and techniques for effective system integration using a robust communications, command, and control (C3) infrastructure are emphasized. After completing the course, students will be proficient at conducting an ESS site survey, developing an ESS concept design, and performing quality assurance inspections and performance verification testing during the ESS installation phase. Throughout the course, active class participation is encouraged through asking questions, analyzing case studies, and solving practical design problems.

**Course Length:** 36 hours of organized classroom instruction

## ***Schedule of Instruction***

### Electronic Security System (ESS) Design Course

<b>DAY</b>	<b>START</b>	<b>END</b>	<b>TOPIC</b>
<b>Monday</b>	8:00	8:15	Welcome & Opening Remarks
	8:15	9:00	Pretest
	9:00	10:00	Introductory Student Exercise - Technology Overview
	10:00	11:00	Lesson 1: Course Overview
	11:00	12:00	Lesson 2: Definitions & Requirements for ESS
	12:00	13:00	LUNCH
	13:00	14:00	Lesson 3: ESS Design & Risk Management
	14:00	15:00	Lesson 4: ESS Functional Elements & Alarm Basics
	15:00	15:30	Lesson 5: ESS Site Survey Overview
	15:30	16:00	Introduction to ESS Design Exercise
	16:00	17:00	GROUP PROJECT TIME
<b>Tuesday</b>	8:00	11:30	Lesson 6: Interior Intrusion Detection Sensors
	11:30	12:30	LUNCH
	12:30	16:00	Lesson 7: Exterior Intrusion Detection Sensors
	16:00	17:00	GROUP PROJECT TIME
<b>Wednesday</b>	8:00	11:30	Lesson 8: Electronic Entry Control Systems
	11:30	12:30	LUNCH
	12:30	16:00	Lesson 9: CCTV Systems
	16:00	17:00	GROUP PROJECT TIME
<b>Thursday</b>	8:00	10:30	Lesson 10: Data Transmission
	10:30	11:30	Lesson 11: Alarm Annunciation System
	11:30	12:30	LUNCH
	12:30	13:30	Lesson 12: Design Considerations & Testing
	13:30	14:30	Lesson 13: Site Surveys
	14:30	15:30	Lesson 14: Cost Estimating
	15:30	17:00	GROUP PROJECT TIME
<b>Friday</b>	7:30	8:30	Posttest
	8:30	10:30	Group Presentations - ESS Design Exercise
	10:30	11:00	ESS Design Exercise Solution & Critique
	11:00	11:30	Closing Remarks & Presentation of Certificates