

Graduate Certificate in Aviation Cybersecurity (Asia-focus)

Security Engineering and Management

This course is one of four cybersecurity courses required for the Aviation Cybersecurity Graduate Certificate. This 3-day, 24-hour course is designed with a particular emphasis on the Asia-Pacific Region.

Upon completion of this course, students should understand the role of planning in cybersecurity. They should understand that cybersecurity should be designed and integrated into every project at the onset to ensure the best and most dynamic protections are put in place. Emphasis is placed on the relationship between information and the operational mission of an agency, business, organization, or other entity. This course ties together information and communications technology (ICT), cybersecurity, business, policies, and ethics.

Learning Objectives

Upon course completion, trainees will be able to:

- Describe the roles and responsibilities of cybersecurity technologies and processes.
- Apply the basic tools and principles of security (e.g., protocols, passwords, access controls, and cryptography) to build dependable, distributed information systems.
- Differentiate between different information security technologies and their relevance in information systems (e.g., applications, market segments, etc.).
- Evaluate and analyze how information security methods and policies impact organizational and legal structures.
- Create information security policies and procedures that meet organizational requirements.
- Apply industry best information security practices to real-life environments.
- Apply the precepts of Integrated Reflective Practice to the management of information security practices.

Course Contents

- Security Engineering Concepts
- Usability and Psychology
- Protocols
- Access Control
- Cryptography
- Distributed Systems
- Economics, Banking and Bookkeeping
- Physical Protection
- Security Printing and Seals
- Electronic and Information Warfare
- Telecom System

Professional Education and Training

Embry-Riddle Aeronautical University – Asia

E-mail: wwasp@erau.edu | Web: asia.erau.edu

- Network Attack and Defense
- Copyright and Digital Rights Management (DRM)
- Terror, Justice, and Freedom
- Managing the Development of Secure Systems
- Certificates, Training and Education

Who Should Attend

- Students about to enter, or recently entered the aerospace workforce
- Aerospace professionals in an operations or management role (airport, airline, air navigation, MRO, legal, etc.)
- Government officials in the aerospace industry
- Other professionals interested in the Aviation Cybersecurity landscape in Asia-Pacific

Training Method

- Face-to-Face instructions in classroom or using Virtual Reality, or online synchronous
- Supported by practical case studies
- OJT may be provided if coordinated with airport authority.

General Information

Duration: 3 days or 24 hours

Venue: Local or Virtual Classroom

Participants: Maximum 25

Prerequisites:

- Familiarity with IT word-processing and presentation software
- Basic knowledge of aviation industry