



Survivability and Information Assurance Curriculum (SIA)

The Problems

1. System administrators do not always understand what they are *really* doing.
2. System administrators do not always correlate enterprise computer systems and network infrastructure components with *business mission*
3. Most system administrators inherit an existing network—yet few are taught how to analyze, maintain, and grow that type of network.
4. System administrators are often too trusting of technology.

SIA Curriculum Overview

Based on the 10 Principles of Survivability and Information Assurance

- http://www.cert.org/info_assurance/principles.html

Designed to teach system and network administrators about information assurance

Provides a way to integrate IA into their routine tasks

Built on key SIA principles that are independent of specific technologies.

Courses

Principles of Survivability and Information Assurance

- presents the ten principles (the basis for entire SIA curriculum)
- 3 semester-hour course (lecture)
- 1 semester-hour lab

Information Assurance Networking Fundamentals

- applies the ten principles to the concepts and an implementation of TCP/IP networking
- 4 semester-hour course (lecture and labs)

Sustaining, Improving, and Building Survivable Functional Units (SFUs)

- students inherit a network, improve it, and add to the enterprise network
- 5 semester-hour course (lecture and lab)

Course Content

Materials are available for download

- Instructor workbook
- Student workbook
- Demonstrations, guided tours, exercises, quizzes, exams
- Supplemental materials
- Guided tours and designs for building the lab

General/Student version – freely available

Faculty/Instructor version – instructors must register with the CERT Program in order to access the instructor materials.

SIA Statistics

Launched end of January 2006

The curriculum is 13 semester hours (162.5 total hours)

As of June 28, 2006:

- 769 downloads from 80 countries
 - 256 industry
 - 196 personal
 - 152 educational
 - 125 governmental agency
 - 40 “other”
- 90 validated faculty from 75 educational institutions have privileges to the SIA curriculum faculty download area.

Additional Information

The CERT® Survivability and Information Assurance Curriculum

<http://www.cert.org/sia/>

Foundations for the SIA Curriculum:

<http://www.cert.org/sia/Foundations.pdf>

Curriculum Overview:

http://www.cert.org/sia/Curriculum_Overview.pdf

Principles of Survivability and Information Assurance

http://www.cert.org/info_assurance/principles.html