Network Programming

Security Introduction

Note: **This class lecture will be recorded!**
If you do not consent to this recording, please do not ask questions via your video, audio or public chat; send your question to the instructor using the private chat.
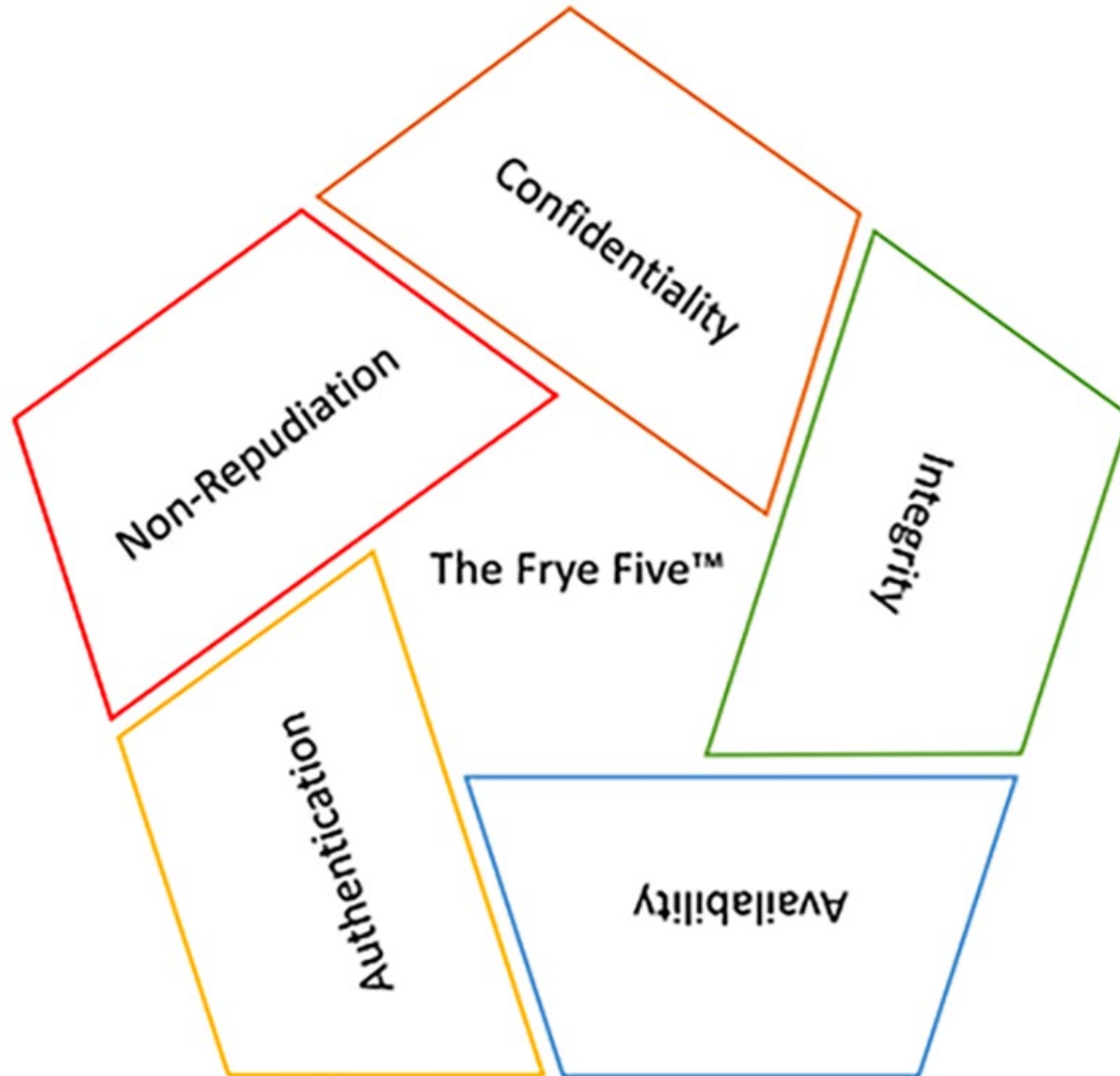
Lisa Frye, Instructor

frye@Kutztown.edu

Kutztown University

CIA Triad

Image from: http://whatis.techtarget.com/definition/Confidentiality-integrity-and-availability-CIA

Security Services / Goals

Terminology

- Exposure

- Threat

- Vulnerability

- Attack

- Control

Kinds of Threats

- ▶ Interruption

- ▶ Interception

- ▶ Modification

- ▶ Fabrication

Some Threats

- ▶ What are some examples of threats?

- ▶ Threats to software, hardware, data??

- ▶ Threats to Data
  - ▶ Principle of Adequate Protection
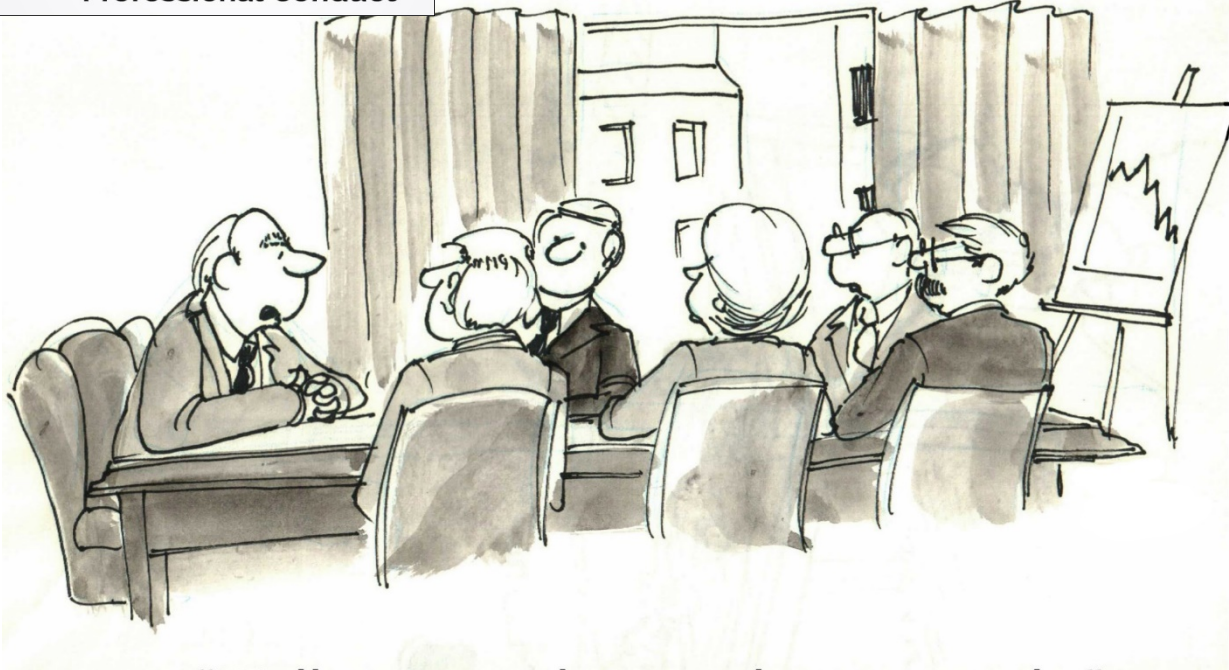 - ▶ Principle of Least Privilege

Forms of Protection

- Copyrights
  - Public domain
- Patent

- Trade secret

- Reverse engineering

Professional Responsibility

ACM Code of Ethics and Professional Conduct

"Well, now we know what not to do."

Professionalism
The practical performance of mastery

responsibility   accountability

integrity

competence

Rights of Employees / Employers

▶ Who owns the work of the employee?

Example: As part of his job, John, an employee of Big Co.'s training division, created a training film using Big Co.'s facilities. Even though John created the film, Big Co. is the author for copyright purposes. Big Co. owns the copyright in the film (unless John and Big Co. have agreed in a signed contract that John owns the copyright).

Example: Darryl, an engineer at Productions, Inc., wrote the script for Productions' newest multimedia work on his own initiative on weekends. Because Darryl did not write the script within the scope of his employment, the work made for hire rule does not apply. If Productions wants ownership of the copyright in the script, it must get an "assignment."