| **PROFESSOR:** |   |
| --- | --- |
| **OFFICE LOCATION:** |   |
| **OFFICE HOURS:** |   |
| **PHONE NUMBER:** |   |
| **E-MAIL:** |   |
| **SEMESTER:** |   |
| **DELIVERY METHOD:** |   |

# COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDITS:

## CTS 1314 Network Defense and Countermeasures I (3 Credits)

Explore the methods needed to provide protection of digital business assets along with detection and response to cyber threats. Leverage threat intelligence to predict threats before they happen. The focus is on network security designed to enable students to create and deploy a comprehensive network defense system.

## PREREQUISITES FOR THIS COURSE:

CTS 2120 with a grade of “C” or better

### CO-REQUISITES FOR THIS COURSE:

DEH 1802, DEH 1802L

## GENERAL COURSE INFORMATION:

Topic Outline.

Network attacks and defense strategies

Administrative and technical network security

Administrative application security

Data security

Endpoint security for Windows, Linux, mobile and Internet of Things (IoT) devices

## ALL COURSES AT FLORIDA SOUTHWESTERN STATE COLLEGE CONTRIBUTE TO THE GENERAL EDUCATION PROGRAM BY MEETING ONE OR MORE OF THE FOLLOWING GENERAL EDUCATION COMPETENCIES:

**C**ommunicate clearly in a variety of modes and media.

**R**esearch and examine academic and non-academic information, resources, and evidence.

**E**valuate and utilize mathematical principles, technology, scientific and quantitative data.

**A**nalyze and create individual and collaborative works of art, literature, and performance.

**T**hink critically about questions to yield meaning and value.

**I**nvestigate and engage in the transdisciplinary applications of research, learning, and knowledge.

**V**isualize and engage the world from different historical, social, religious, and cultural approaches.

**E**ngage meanings of active citizenship in one’s community, nation, and the world.

A. General Education Competencies and Course Outcomes

1. Listed here are the outcomes/objectives assessed in this course which play an integral part in the student’s general education along with the general education competency they support.

General Education Competency: Think

 Course outcomes or objectives supporting the General Education competency:

 Implement common defense tools to prevent network attacks.

 Assess modern attack methods, infiltration preference, and security exploitations.

 Analyze and identify network topologies used for modern information systems.B. Other Course Objectives/Standards

 Utilize network security defense tools for both software and hardware countermeasures.

 Explore recent and historic events of major cyber-attacks.

 Use the cyber kill chain to trace the stages of a cyber-attack.

 Discover leading database design architectures and security protocols.

 Discuss endpoint security solutions for different types of platforms.

 Compare and contrast different methods to provide protection for data security.

 Implement endpoint security for Windows, Linux, mobile and IoT devices.

 Analyze emerging computing systems prevalent in the information technology infrastructure.

 Perform security assessments for mobile devices, IoT, and program or web application security.

 Monitor and analyze logs and alerts from a variety of different technologies across multiple platforms (IDS/IPS, end-point protection, servers, and workstations).

## DISTRICT-WIDE POLICIES:

### PROGRAMS FOR STUDENTS WITH DISABILITIES

Florida SouthWestern State College, in accordance with the Americans with Disabilities Act and the College’s guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students needing to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability should contact the Office of Adaptive Services at the nearest campus. The office locations and telephone numbers for the Office of Adaptive Services at each campus can be found at <https://www.fsw.edu/adaptiveservices>.

### REPORTING TITLE IX VIOLATIONS

Florida SouthWestern State College, in accordance with Title IX and the Violence Against Women Act, has established a set of procedures for reporting and investigating Title IX violations including sexual misconduct. Students who need to report an incident or need to receive support regarding an incident should contact the Equity Officer at equity@fsw.edu. Incoming students are encouraged to participate in the Sexual Violence Prevention training offered online. Additional information and resources can be found on the College’s website at <https://www.fsw.edu/sexualassault>.

## REQUIREMENTS FOR THE STUDENTS:

List specific course assessments such as class participation, tests, homework assignments, make-up procedures, etc.

## ATTENDANCE POLICY:

The professor’s specific policy concerning absence. (The College policy on attendance is in the Catalog and defers to the professor.)

## GRADING POLICY:

Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

| **Grade Percent** | **Letter Grade** |
| --- | --- |
| 90 - 100 | A |
| 80 - 89 | B |
| 70 - 79 | C |
| 60 - 69 | D |
| Below 60 | F |

(Note: The “incomplete” grade [“I”] should be given only when unusual circumstances warrant. An “incomplete” is not a substitute for a “D,” “F,” or “W.” Refer to the policy on “incomplete grades.)

## REQUIRED COURSE MATERIALS:

(In correct bibliographic format.)

## RESERVED MATERIALS FOR THE COURSE:

Other special learning resources.

## CLASS SCHEDULE:

This section includes assignments for each class meeting or unit, along with scheduled Library activities and other scheduled support, including scheduled tests.

## ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:

(Which would be useful to the students in the class.)