

# Sul Ross State University

Spring 2017

## CSST 4374 Network Defense

**Instructor:** Thea Glenn  
M.S. Management Information Systems

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**Office Hours:** 9am – 1pm

**Class:** MAB 204

**Class Time:** MW 2 – 3:15

**Textbook:** J. Michael Stewart, Network Security, Firewalls and VPNs, Second Edition. Jones and Bartlett, 2014, ISBN-13: [9781284031676](https://www.amazon.com/dp/9781284031676)

### Course Objectives

This course provides students with knowledge of the methods of analyzing and mitigating threats coming from inside or outside the network. It addresses network protocols, security devices, security services, configuration, and packet capture and analysis.

Specific topic coverage includes the following (time permitting):

- Network Security Fundamentals
- TCP/IP
- Network Traffic Signatures
- Routing Fundamentals
- Cryptography
- Wireless Networking Fundamentals
- Understanding Wireless Networking Security
- Intrusion Detection and Prevention System Concepts
- Firewall Concepts
- Firewall Design and Management
- Virtual Private Network (VPN) Concepts
- Internet and Web Security
- Security Policy Design and Implementation
- Ongoing Security Management

### Attendance

Attendance is different for an independent study. We will meet every so often so that I will make sure you understand the material and answer any questions you have. Please email me your questions. That way I will answer your question as clearly as possible.

### Need for Assistance

Qualified students with disabilities needing academic or other accommodations to ensure full participation in the programs, services and activities at Sul Ross State University should contact the Disabilities Services Coordinator, in Counseling and Prevention Services, Ferguson Hall 112, Box C-117, Alpine, Texas 79832. Please notify me before the third day of

classes.

### Course Policies

Quizzes and assignments must be submitted on time. I have set up rules in Blackboard so that assignments cannot be submitted after the due date.

### Academic Dishonesty

Honesty in completing assignments is essential to the mission of the university and to the development of the personal integrity of the student. **Cheating, plagiarism** also means taking information off line and using it as your own content, or other kinds of academic dishonesty will not be tolerated and will result in appropriate sanctions that may include failing an assignment, failing the class, or being suspended or expelled. Suspected cases in this course may be reported to Student Life. Please note that information online is not free even though there is public access to the information. When using online resources you must properly cite your reference in the paper as well as on the reference page.

### Posting of Grades

Grades are on display in blackboard. Submitting assignment submission needs to occur in BlackBoard. **Do not** email assignments or test to me everything is to be put into blackboard.

### Grading

Letter grades will be determined using a standard percentage point evaluation as outlined below. Please note that this is a tentative schedule and can change. Any changes that happen will be updated in Blackboard. Due Dates for assignments are in Blackboard.

Your final grade will be determined by calculating points based on the following weights:

- A 90 - 100 points
- B 80 - 89 points
- C 70 – 79 points
- D 60 – 69 points
- F below 60 points

**The following is a tentative schedule and is subject to change**

Week	Topics	Chapter Readings	Exams
1	Network Security Fundamentals	Chapter 1	

<b>2</b>	TCP/IP	Chapter 2	
<b>3</b>	Network Traffic Signatures	Chapter 3	
<b>4</b>	Routing Fundamentals	Chapter 4	
<b>5</b>	Cryptography	Chapter 5	
<b>6</b>	Wireless Networking Fundamentals	Chapter 6	
<b>7</b>	Understanding Wireless Networking Security	Chapter 7	Mid-term Exam
<b>8</b>	Intrusion Detection and Prevention System Concepts	Chapter 8	
<b>9</b>	Firewall Concepts	Chapter 9	
<b>10</b>	Firewall Design and Management	Chapter 10	
<b>11</b>	Virtual Private Network (VPN) Concepts	Chapter 11	
<b>12</b>	Internet and Web Security	Chapter 12	
<b>13</b>	Security Policy Design and Implementation	Chapter 13	
<b>14</b>	Ongoing Security Management	Chapter 14	Final Exam