

# WELCOME TO NETWORK SECURITY

EN.600.444/644

Spring 2019

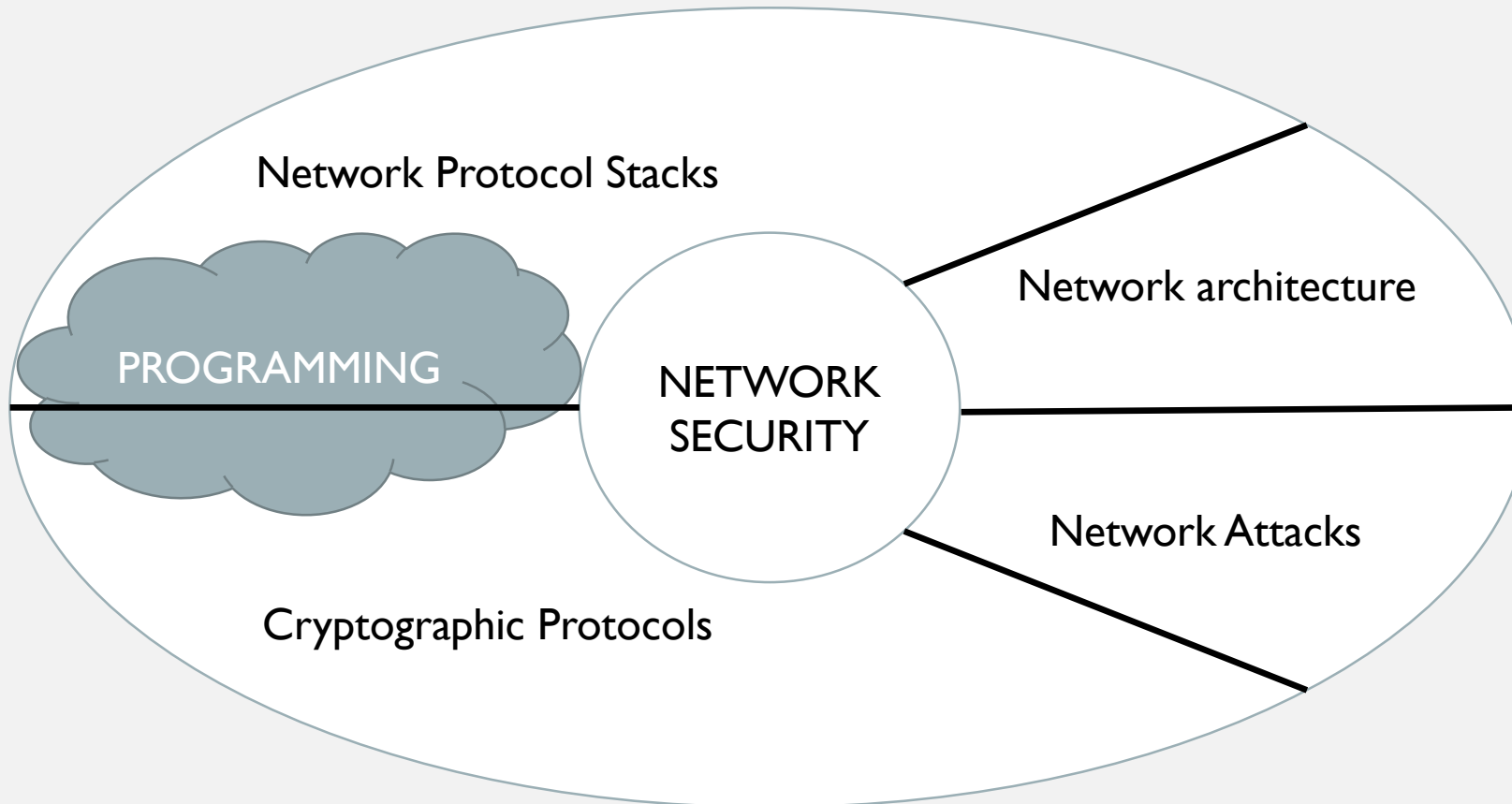
**Dr. Seth James Nielson**

# ABOUT THE INSTRUCTOR



**CRIMSON VISTA**  
TECHNICAL CONSULTING & LITIGATION SUPPORT

# ABOUT THE COURSE



# PHILOSOPHICAL OVERVIEW

**TECHNICAL**

**NONTECHNICAL**

**THEORY**

**PRACTICE**

**EDUCATED**

**SKILLED**

**TEACHER**

**STUDENT**



# THE 5 ORDERS OF IGNORANCE

- 0th Order: Known Knowns
- 1<sup>st</sup> Order: Known Unknowns
- 2<sup>nd</sup> Order: Unknown Unknowns
- 3<sup>rd</sup> Order: Unknown methods for discovering unknown unknowns
- 4<sup>th</sup> Order: Unknown methods for exploring the orders of ignorance

(Adapted from Phillip Armour, “The Five Orders of Ignorance”)

# THE 5 ORDERS OF IGNORANCE

- 0th Order: Known Knowns
- 1<sup>st</sup> Order: Known Unknowns

SKILL

- 2<sup>nd</sup> Order: Unknown Unknowns
- 3<sup>rd</sup> Order: Unknown methods for discovering unknown unknowns
- 4<sup>th</sup> Order: Unknown methods for exploring the orders of ignorance

EDUCATION

(Adapted from Phillip Armour, “The Five Orders of Ignorance”)

STUDENT + TEACHER

**MEDIOCRITY**



**Sufficient Time  
Sufficient Sacrifice  
Sufficient Humility**



**SHARED VISION**

# FACING THE CHALLENGE

Final Exam: Teach it!

Spec Drafting

Three MAJOR labs

Technical Reading + Quizes





**BUT YOU CAN DO IT!**

TUPAC SHAKUR #QUOTE



TNCNNA

[www.ComicStripGenerator.com](http://www.ComicStripGenerator.com)

I **BELIEVE** in YOU

I want you to  
**SUCCEED!**

I want you to feel the  
RUSH and LOVE it!

## BUT UNDERSTAND THE RISKS

A “**B**” (or maybe even a “**C**”) is not the greatest loss in your academic career. The greatest loss is an “**A**” on your transcript, but a “**B**” (or maybe even a “**C**”) in your heart and mind.

Dr Nielson #Quote

## THIS CLASS IS **NOT** FOR YOU IF...

- Grades matter more than learning
- You're not willing to take risks
- You're not willing to work hard
- You're not willing to be *uncomfortable*

## THIS CLASS **IS** FOR YOU IF...

- You want to increase your awesomeness
- You want to think in ways you've never thought before
- You like taking on challenges
- You understand both figuring things out for yourself and the need to get help

# MY JOB IS ENABLEMENT

Retake/Fallbacks

Office Hours

Useful Lectures

Help Sections



## POLICY #1: COMMUNICATION

If you are having trouble,  
you will tell me **EARLY**.

## POLICY #2: CLASS IS FOR DISCUSSION

I will not cover every detail in class. You must learn the core **individually**.

## POLICY #2(A): LEARN BEFORE CLASS

Study assigned readings  
before class. Bring  
**Questions/Insights.**



## POLICY #2(B): TA/TEACHER HELP

If you did not fully  
understand a class topic, see  
a TA/Teacher for **HELP**.

## POLICY #3: THE WORLD IS YOUR TEXTBOOK

Some readings are  
unspecified. Find materials  
by **SEARCH**.

## POLICY #4: LAPTOPS

Bring laptops to class every day. Use them for class assignments **ONLY**.

## POLICY #5: CHEATING

Review details in the  
Syllabus. **Don't Do It.**

## CLASS RESOURCE #1: CAMPUSWIRE

- Similar to Piazza, but I think it might be better (experiment)
- For most questions, please post to Campuswire instead of sending email
- Responding to an email helps I, responding on Campuswire helps class
- You will receive an invite

## CLASS RESOURCE #2: GITHUB

- [github.com/CrimsonVista/NetworkSecuritySpring2019](https://github.com/CrimsonVista/NetworkSecuritySpring2019)
- You need to share a **PRIVATE** github repo with Teacher/TA for this class
- Please review instructions for organizing directories within the repo
- Make sure you have academic status at GitHub so you can collaborate

## CLASS RESOURCE #3: HELP SECTIONS

- Out-of-class reinforcement, hands-on help for new concepts
- Please let the teaching staff know on Campuswire good times for these
- Intended to help individuals that are behind catch-up

## NEXT CLASS PREVIEW



```
print("Hello, world!")
```