

Welcome

# **SOFTWARE SECURITY**

# I'm Shawn

- B.S. Cyber Operations 2014
  - Minor in Computer Science
- M.S. Applied Computer Science May 2016
- 3 years developing systems related to computer forensics
- 2 fun facts





Course Info

# **SOFTWARE SECURITY**

# Syllabus

# Campus Resources

- Counselling Center
  - Located within the Learning Engagement Center
  - <https://dsu.edu/student-life/student-success-center>
- Emergency Preparedness

# Title IX Resources

## Community Resources

- Madison Police Department
  - Dial 911 or 605-256-7531
- Madison Regional Health Hospital
  - 605-256-6551
- Donelan Counseling
  - 605-480-3683
- Community Counseling Services
  - 605-256-9656
- Domestic Violence Network
  - 605-480-2721
- Helpline Center
  - Dial 211

## How to Report a Concern

- Report to Title IX Coordinator, Angi Kappenman
  - Human Resources Office, 2<sup>nd</sup> Floor Heston Hall
  - 605-256-5134
  - [Angi.Kappenman@dsu.edu](mailto:Angi.Kappenman@dsu.edu)
- Title IX Incident Reporting Form
  - Found online at <https://dsu.edu/title-ix>
- Any DSU employee
  - We are all mandatory reporters except for the Counseling Center

## On Campus Resources

- Title IX Coordinator
  - Angi Kappenman 605-256-5134
- DSU Counseling Center
  - 605-256-5121
- Campus Watch
  - 605-270-7713 or 605-270-7712
- Campus Security Officer
  - Heath Abraham 605-270-0055



# Sample Topics

- Implementation Flaws
  - Overflows
  - Format String Problems
  - Race Conditions
  - Information Leakage
- Crypto Problems
  - Weak password-based systems
  - Weak random numbers
  - Improper cryptography
- Prevention
  - QA
  - Code Review
- Detection
  - Source v. Binary Analysis
- Vulnerability Taxonomies

# Your Job

- Be in class
  - You are adults and have other obligations – I get that
  - Arriving late is better than not showing up

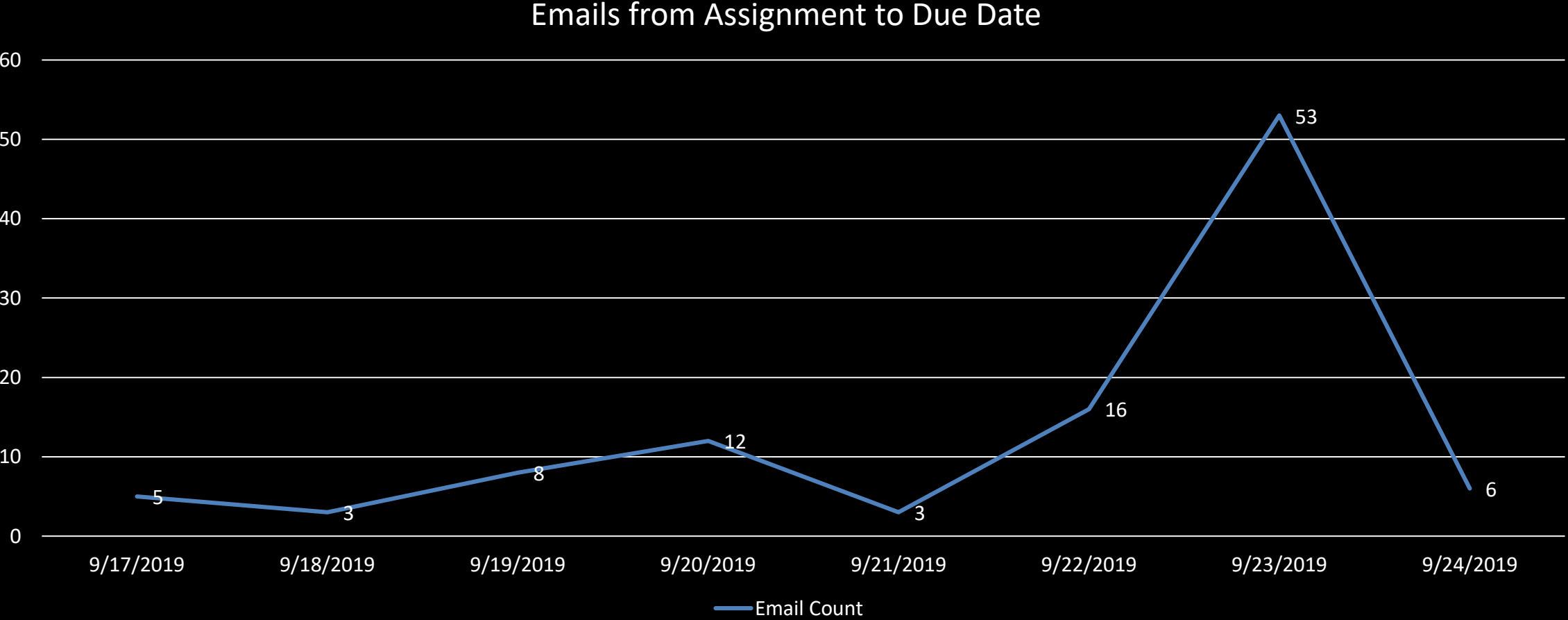
# Your Job

- Participate actively

# Your Job

- Do the work
  - Start early
  - Try some troubleshooting / problem solving
- A low grade is upsetting; a 0 is worse

# Example Email Volume for a Lab



# Your Job

- Remember why you are here

# Assignments & Labs

- We'll have between 8 and 14 assignments
- You'll have at least 6 days to complete an assignment
- 1 lowest score dropped automatically

# Quizzes

- Quizzes are knowledge checkpoints to be used to prepare for exams
  - Unlimited attempts until due date



# Exams

- 2 exams
- Weight evenly distributed across them

# MORE STUFF

- Academic Resources
  - O'Reilly Higher Education