

Course Syllabus

Course Information

CS 6301.008 87599: **Advanced Topics in Internet Measurement and Network Security**, Fall 2018

Friday 4:00pm–6:45pm, CB3 1.308

Professor Contact Information

Shuang Hao, Assistant Professor

Phone: (972) 883-4164

Office: ECSS 2.703

Office Hours : Tuesday 3:00pm-4:00pm ECSS 2.703

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Computer Networking course

Course Description

Techniques, tools, and ethics of conducting empirical network security and Internet measurement research. The course will be based on readings of foundational and seminal research papers.

Topics include measurement methodology, intrusion detection, denial-of-service, botnets and spam, protocol issues, web attacks, search engine optimization, and deep learning in security.

Student Learning Objectives/Outcomes

- Ability to understand networking and security concepts
 - Ability to understand and use network measurement tools
 - Ability to understand and apply empirical analysis
 - Ability to understand attack detection techniques
 - Ability to read and review research papers
 - Ability to conduct network security research project
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Required Textbooks and Materials

None

Suggested Course Materials

Hacking: The Art of Exploitation (2nd Edition) by Jon Erickson

<http://www.covert.io/the-definitive-security-datascience-and-machinelearning-guide/>

Assignments & Academic Calendar

Paper reading assignment every week. Project idea/proposal is due by the middle of the semester. Project report is due by the last day of the class.

Grading Policy

Class participation 10%

In-class presentations 40%

Class project 50%

Course & Instructor Policies

No late submission.

Cheating and plagiarism on the project report is not allowed, especially copying from online writing resources or papers.

Students are expected to attend the class.

By the Computer Science Department's policy, absence in three consecutive lectures will result in the course grade being lowered by one letter.

Cell phones shall be turned mute during the class and shall not be used in the classroom.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.