Tennessee Tech University

Computer Science

CSC 2901 Introduction to Penetration Testing

W, 4:30PM – 5:50PM, Bruner 207, 1 Credit Hours, Spring 2017

Instructor Information

Instructor's Name:	**Vitaly Ford**
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Office:	**Bruner 205**
Office hours:	**Refer to the schedule:** http://vford.me/schedule

Course Information

Prerequisites

Consent of instructor.

Course Description

Theory and practice of penetration testing. Pre-engagement activities, reconnaissance, vulnerability analysis, exploitation, post exploitation, reporting. Hands-on exercises in a virtual infrastructure.

Course Objectives/Student Learning Outcomes

At the end of this course, each student will:

1. Gain theoretical and technical knowledge of penetration testing.

2. Acquire the ability to critically evaluate the business environment in terms of threats and attack vectors.

3. Gain knowledge of techniques most commonly used in penetration testing.

4. Apply the above objectives to perform a full penetration test with reporting.

Major Teaching Methods

Lecture, demonstrations, discussion, reading, hands-on assignments.

Special Instructional Platform/Materials

Laptop, VMWare/VirtualBox.

TOPICS TO BE COVERED:
- * ASSESSMENT PLANNING
- * PASSIVE RECONNAISSANCE
- * ACTIVE RECONNAISSANCE
- * EXPLOITATION
- * POST EXPLOITATION
- * REPORTING

TEXTS AND REFERENCES:

Available for free at Safari Books: Advanced Penetration Testing for Highly-Secured Environments - Second Edition

http://proquest.safaribooksonline.com.ezproxy.tntech.edu/book/networking/security/9781784395810/firstchapter

(Optional, not required: The Hacker Playbook 2
http://www.amazon.com/The-Hacker-Playbook-Practical-Penetration/dp/1512214566*)*

References (if applicable): Some material will be provided from other sources.

TECHNOLOGY IN CLASSROOM COMMUNICATION
Web: http://vford.me/2901

GRADING AND EVALUATION PROCEDURES:

GRADING SCALE

Letter Grade	Grade Range
A	90-100
B	80-89
C	70-79
D	60-69
F	< 59

NOTE: **If you have an issue with a grade on ANY individual assignment, you must see me within three days of the grade being released to the class.**

GRADE DISTRIBUTION

Technical Report: 80%

Business presentation: 20%

The report will include the results of the **full** penetration test performed in the virtual environment.

COURSE POLICIES

UNIVERSITY PLAGIARISM POLICY

When you use (for example, quote or even summarize or paraphrase) someone else's media, words, data, ideas, or other works, you must cite your source. You should be especially careful to avoid plagiarizing Internet sources (for example, e-mail, chat rooms, Web sites, or discussion groups). It does not matter whether you borrow material from print sources, from the Internet, from on-line databases, or from interviews. Failure to cite your source is plagiarism. Students who plagiarize may receive an "F" or a "0" for the assignment, or an "F" for the course. View the University

Plagiarism Policy under Academic Regulations at http://www.tntech.edu/ttustudenthandbook/academic-regulations/

HONESTY

Copying assignments or allowing your assignments to be copied by others constitutes cheating and as such will not be tolerated. Faking your program so that it produces the sample output without implementing the underlying process is also cheating. The penalty for cheating in this course is the automatic grade of an F for your assignment. If you are caught a second time, you will automatically fail the course.

ATTENDANCE POLICY:

Attendance is required. More than three unexcused absences will result in lowering of 1 letter grade.

DISABILITY ACCOMMODATION

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. Disability Accommodation Policy and Procedures - Tennessee Tech University Faculty Handbook and Student Handbook http://www.tntech.edu/facultyhandbook/diabilityaccom/)

OFFICE ETIQUETTE

If my door is open, that means I am willing to take questions and help students. I am often available outside my normal office hours and you may ask (e.g. via email) if you can schedule an appointment to receive help outside of regular hours.