



Virtual Campus

School of Business

**1. UNIVERSITY MISSION STATEMENT**

Wayland Baptist University exists to educate students in an academically challenging, learning-focused and distinctively Christian environment for professional success, lifelong learning, and service to God and humankind.

**2. COURSE NUMBER & NAME:**

MISM 4335-VC01, Ethical Hacking

**3. TERM:**

Winter 2018

**4. INSTRUCTOR:**

Jimmy Fikes

**5. CONTACT INFORMATION:**

Phone: 806-831-3918

WBU Email: jimmy.fikes@wayland.wbu.edu

**6. OFFICE HOURS, BUILDING & LOCATION:**

Students may request personal conferences with the instructor on any day, and at any time.

**7. COURSE MEETING TIME & LOCATION:**

Meeting day & time: This class will be conducted entirely online in Blackboard.

**8. 9. CATALOG DESCRIPTION:**

Course is designed to addresses various underlying principles and techniques for detecting and responding to current and emerging computer security threats.

**9. PREREQUISITE:**

MISM 3301, MISM 3304

**10. REQUIRED TEXTBOOK AND RESOURCE MATERIAL:**

BOOK	AUTHOR	ED	YEAR	PUBLISHER	ISBN#	UPDATED
CEH Certified Ethical Hacker	Walker	3rd	2017	McGraw-Hill	9781-25983-7531	9/11/17

## **11. OTHER MATERIALS**

Students are required to submit all assignments to a shared Dropbox folder. The instructor will send connection information about this account in the first week of the term.

## **12. COURSE OUTCOMES AND COMPETENCIES:**

- Describe the role of an ethical hacker
- Explain the TCP/IP concepts
- Describe the types of network attacks
- Identify physical security attacks and vulnerabilities
- Use Web tools for foot printing
- Identify the types of social engineering
- Describe port scanning and types of port scans
- Describe the enumeration step of security testing
- Enumerate OS targets
- Describe vulnerabilities of the Windows and Linux operating systems
- Explain techniques to harden systems against Windows and Linux vulnerabilities
- Describe Web application vulnerabilities and the tools used to attack Web servers
- Describe wireless networking standards
- Describe the process of authentication
- Describe war driving
- Describe wireless hacking and tools used by hackers and security professionals
- Summarize the history and principles of cryptography
- Describe symmetric and asymmetric encryption algorithms
- Explain public key infrastructure (PKI)
- Describe possible attacks on cryptosystems
- Explain how routers are used as network protection systems
- Describe firewall technology and tools for configuring firewalls and routers
- Describe intrusion detection and prevention systems and Web-filtering technology
- Explain the purpose of honeypots

## **13. ATTENDANCE REQUIREMENTS:**

As stated in the Wayland Catalog, students enrolled at one of the University's external campuses should make every effort to attend all class meetings. All absences must be explained to the instructor, who will then determine whether the omitted work may be made up. When a student reaches that number of absences considered by the instructor to be excessive, the instructor will so advise the student and file an unsatisfactory progress report with the campus executive director. Any student who misses 25 percent or more of the regularly scheduled class meetings may receive a grade of F in the course. Additional attendance policies for each course, as defined by the instructor in the course syllabus, are considered a part of the University's attendance policy.

#### **14. STATEMENT ON PLAGIARISM & ACADEMIC DISHONESTY:**

Wayland Baptist University observes a zero-tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported and second offenses will result in suspension from the university.

#### **15. DISABILITY STATEMENT:**

In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations.

#### **16. COURSE REQUIREMENTS and GRADING CRITERIA:**

##### Weekly Chapter Assignments

- Due by midnight, Sunday night, at the end of the week they are assigned
- Late assignments are penalized 10 points per day. After ten days, a zero is recorded and the work may not be made up unless the student made prior arrangement with the instructor.
- The average of all chapter assignments will make up 35% of the total term grade.

##### Weekly Quizzes

- Eight quizzes must be taken during the week they are assigned.
- Quizzes may be retaken beyond the week they are assigned to reinforce learning, but the highest score earned during the week the quiz was assigned will be the value used for that quiz in the formula for the total term grade.
- The average of all quiz grades will make up 15% of the total term grade.

##### Discussion Board

- Eight graded forums (see the grading rubric in Course Documents on Blackboard)
- The average of all discussion grades will make up 20% of the total term grade.

##### Exams

- Two exams (one each in weeks 5 and 11).
- The average of the two exam grades will make up 30% of the total term grade.

##### Grading Scale:

A	90-100	D	60-69
B	80-99	F	Below 60
C	70-79		

**16.1 Include Grade Appeal Statement:** “Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Vice President of Academic Affairs/Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.”

## 17. TENTATIVE SCHEDULE

Week	Topics	Week	Topics
1	Chapter 1: Getting Started Understanding the scope of ethical hacking	6	Chapter 5: Attacking a System
2	Chapter 2: Reconnaissance Chapter 11: Low Tech: Social Engineering	7	Chapter 6: Web-Based Hacking Chapter 7: Wireless Network Hacking
3	Chapter 3: Scanning and Enumeration	8	Chapter 8: Security in Cloud Computing Chapter 9: Trojans and Other Attacks
4	Chapter 4: Sniffing and Evasion	9	Chapter 10: Cryptography 101
5	Exam 1	10	Chapter 12: The Pen Test: Putting It All Together
		11	Exam 2