UNIVERSITY OF THE INCARNATE WORD
School of Mathematics, Science and Engineering

Course Syllabus

Basic Information

Term	**Fall 2021**
Course Title	*Network Security Management*
Course Code	CSEC 3320
Credit Hours	3.0
Classroom	Building: JB, Room: 108
Class Schedule	Mon & Wed: 4:30 PM – 5:45 PM
Prerequisite Course	CSEC 4310 (Management of Technology) and CSEC 4340 (Windows System Security)
Course Professor	Dr. Gonzalo De La Torre Parra
Department Offering the Course	Computer Information Systems and Cyber Security
Department Chair	Dr. Michael Frye
School	School of Mathematics, Science and Engineering
Contact Email	gdparra@uiwtx.edu
Contact Number	(210) 829-3146
Office and Location	Agnese/Sosa Room: 113
Office Hours	Mon, Wed	11:00 AM – 12:00 PM	✷ *Also available by appointment*
	Mon, Wed	1:30 PM – 3:00 PM	
Number of Lectures	28

2 Catalog Description

This course provides in-depth coverage of current risks and threats to computer systems, communications networks, and information held and transmitted within information processing systems. Emphasis is on analyzing system vulnerabilities and securely managing these resources. Structured methods of addressing and safeguarding electronic assets. Develop practical techniques for system security identification and management used in cyber security operations.

3 Course Overview

This course focuses on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security program assess-

ment and metrics. Coverage on the foundational and technical components of information security is included to reinforce key concepts. The course includes up-to-date information on changes in the field, such as national and international laws and international standards like the ISO 27000 series.

This course will address the following topics:

- Introduction to the Management of Information Security
- Compliance: Law and Ethics
- Governance and Strategic Planning for Security
- Information Security Policy
- Developing the Security Program
- Risk Management: Assessing Risk
- Risk Management: Treating Risk
- Security Management Models
- Security Management Practices
- Planning for Contingencies
- Security Maintenance
- Protection Mechanisms

4   Course Resources

1. Textbook:
    - Whitman, M. E. Matford, H. J. Management of Information Security. Cengage Learning Inc. ISBN-13: 978-1-337-40571-3/ISBN-10: 1-337-40571-X

2. Internet Access/Word Processing: Students will need Internet access and will require administrative access to a computer system to successfully complete the activities in this course. It is the responsibility of the student to not only have access to the internet, but to have access to a word processor (MS Office/Open Office/Google Docs) for course activities. UIW facilitates these resources on campus.

3. Email and Blackboard Learn: For this course, we will correspond using the UIW email system. Blackboard Learn may be used throughout the semester to provide a student-instructor forum for sharing information.

5   Course Outcomes

On completion of this course, students will be able to:

- Demonstrate understanding of key concepts of network security management to include threat and vulnerability analysis, risk assessment, and security mitigation techniques.
- Describe appropriate network security management practices for protecting data-at-rest, data-in-motion, and data-in-use.
- Evaluate the strengths and weaknesses of cryptographic policies as applied to both standalone computer and networked systems.
- Analyze and develop a security baseline network security management plan for small to medium sized organizations. Report on results of analysis.

6 Assessment

Course objective will be assessed by:

- Written homework assignments to include basic research reports.

- Mid-term and final course examinations of course material presented.

- Group project where each student will be evaluated by their contribution to the overall success of the project

- Indirect assessment based on classroom discussion participation.

7 Grading Activities, Criteria, and Guidelines

- Class Attendance (10%): Students are expected to attend class but are provided with 3 excused absences as stated in 1.6 and it is evaluated as follows:

    - 0 - 2 absences → 10%
    - 3 absences → 5%
    - 4 withdraw from class
    - Note: Students entering the classroom more than **15 minutes** after class starts will be **counted as being absent**

- Two Mid-Term Exams (15% each) - Exam will generally include multiple choice, True/False selection, fill-in the blank, and short answer questions. Material from the discussion, slides, and lecture notes will comprise most of the mid-term content.

- Assignments (20%) - Four homework assignments that enhances students research skills and enforces the concepts that students will be learning through the course. Homework assignments must be turned in on or before the prescribed due date. All Assignments due as defined in the course schedule unless I instruct it differently in class.

- Group project (20%) - Microsoft Power Point slides and Presentation (18%), Group project status report (2%).

    - Status report: Each group should submit a status report in MS Word to Blackboard. The report should include current status of the project, challenges (if any) and next step.
    - Power Point: Select a topic from those we will cover in this class, or on another topic that I approve. Conduct research on this topic and prepare 12-15 slides presentation.
    - Blackboard Discussion: Post your project to Blackboard group project discussion area and be able to answer questions from your peers. Each group must provide a minimum of two comments/questions to two different groups. Each group is responsible about answering all the questions related to their project.

- Final Exam (20%) - The final exam will be given on the scheduled date per UIW final exam scheduling. This end of course exam can be over anything we have covered during the course. Please do not schedule anything that might conflict with the final exam. No one will be excused from it and there will be no make-up exam dates.

Evaluation Criteria Letter grades will be determined using a standard percentage point evaluation as outlined below. The final grade will be computed on the following weights:

Evaluation Event	Grade Percentage
Attendance	10
Mid Term Exam 1	15
Mid Term Exam 2	15
Homework Assignments	20
Group Project	20
Final Course Exam	20
Total	100

8   General Student Information

Teaching Strategy: This is an in person course. This means that we will meet twice a week in class unless I tell you otherwise. Please monitor your email for weekly announcements. Students are responsible about attending all classes and attendance will be recorded via GradesFirst.

Changes: This outline is a guideline and not a contract. As such, I may alter it if it seems to be in the best interest of the class to do so. I will discuss prominent changes with you and post them on Blackboard. I will make every attempt to hold graded activities on the date scheduled

Attendance: Class attendance is mandatory, students are expected to attend and participate in all scheduled meetings. Students are also expected to show active participation in the course and complete each learning module assignments on-time via Blackboard and show active participation. Students are allowed up to 3 excused absences throughout the semester. There are only two types of excused absences as the following:

- Planned Absences. Students must notify instructors in writing at least two weeks prior to planned absences such as participation in an official university function, observance of a religious holy day or active military service. If the absence is for military service the student should provide to each instructor a copy of the military orders. The University of the Incarnate Word welcomes persons of diverse backgrounds and is therefore committed to providing reasonable accommodations for students wanting to attend religious observances and who will miss class. Students must inform instructors at least two weeks prior to attending a religious observance. Students use the form found in the UIW Student Handbook Student Code of Conduct to request accommodations from the instructor.

- Illness or other extenuating circumstances. Students should notify the instructor directly of absence due to illness or other extenuating circumstance.

  Students who are not able to attend a course are responsible for dropping the course by the appropriate deadline. Instructors may not automatically drop a student from a course. Students who do not attend, accumulate 4 or more absences, and who do not officially drop the course will be reported to the dean of student success and will receive a failing grade for the course.

Makeup Policy: Homework assignments only may be reassessed up to 1 week late with a fixed, post-evaluation penalty of 25%. No make-up work will be accepted more than 7 calendar days past the due date. There will be no accommodations for missed group project submissions or exams and students will receive a zero for that grade.

Academic Integrity Statement: The highest standards of academic honesty are expected in the course. Forms of academic dishonesty include, but are not limited to cheating, plagiarism, counterfeit work, falsification of academic record, unauthorized reuse of work, theft, and collusion. See the student handbook for definitions and procedures for investigation of claims of academic dishonesty. `http://www.uiw.edu/campuslife/documents/uiwstudenthandbook1618.pdf`

Disability Accommodations: The University of the Incarnate Word is committed to providing a supportive, challenging, diverse and integrated environment for all students. In accordance with Section 504

of the Rehabilitation Act â Subpart E, Title III of the Americans with Disabilities Act (ADA), and Title III of the ADA Amendments Act of 2008 (ADAAA), the University ensures accessibility to its programs, services and activities for qualified students with documented disabilities. To qualify for services, the student must provide Student Disability Services with the appropriate documentation of his or her disability at the time services and/or accommodations are requested.

Title IX Information: Unlawful discrimination has no place at the University of the Incarnate Word. It violates the University's core values, including its commitment to equal opportunity and inclusion, and will not be tolerated. The University of the Incarnate Word prohibits sexual misconduct, that can include: (1) sex and gender based discrimination; (2) sexual and sex and gender based harassment (including a hostile environment based on sex or gender); (3) sexual assault; (4) sexual exploitation; (5) stalking; and (6) relationship violence (including dating and domestic violence). For more information, or to report an incident, please visit www.uiw.edu/titleix.

Pregnancy Accommodations: Under the Department of Education's (DOE) regulations implementing Title IX of the Education Amendments of 1972, the University does not discriminate against any student on the basis of pregnancy or pregnancy related conditions. To request reasonable accommodations for disability, temporary disability (e.g., injury, surgery) or pregnancy, please contact:

> Student Disability Services
> 4301 Broadway CPO 286
> Administration Building â Suite 105
> San Antonio, TX 78209
> (210) 829-3997 (210) 829-6078

Academic Grade Assignments: According to the Undergraduate Catalog the following is how letter grades will be assigned at the University.

Grade	Numeric Range	Grade Points	Comments
A	93 - 100	4.00	Indicates a superior grasp of the subject matter of the course. Demonstrates initiative and originality in approaching problems. Appropriately synthesizes course information with ability to relate knowledge to new situations.
A-	90 - 92	3.70	
B+	87 - 89	3.30	Indicates better than average grasp of the subject matter of the course and ability to appropriately apply principles with intelligence.
B	83 - 86	3.00	
B-	80 - 82	2.70	
C+	77 - 79	2.30	Indicates an acceptable grasp of the essential knowledge elements of the course.
C	70-76	2.00	
D+	67 - 69	1.30	Indicates less than average performance in the course.
D	63 - 66	1.00	
D-	60 - 62	0.07	
F	<60	0.00	Indicates failure to master the minimum essentials of the course material. The course must be repeated.

9 Course Schedule

Wk	Date	Topic	Comments
1	08/23	Course Overview/Syllabus	
	08/25	Introduction to the Management of Information Security	HW1 Assigned
2	08/30	Compliance: Law and Ethics	
	09/01	Governance and Strategic Planning for Security	
3	09/06	No Class	Labor Day
	09/08	Information Security Policy	
6	09/13	Information Security Policy Cont.	HW1 Due /HW2 Assigned
	09/15	Developing the Security Program	
7	09/20	Risk Management: Assessing Risk	
	09/22	Risk Management: Assessing Risk Cont.	
8	09/27	Midterm I Review	
	09/29	Midterm I	
9	10/04	Risk Management: Treating Risk	HW2 Due/ HW3 Assigned
	10/06	Risk Management: Treating Risk Cont.	
10	10/11	Security Management Models	Group Project Status Report Due
	10/13	Security Management Models Cont.	
11	10/18	Security Management Practices	
	10/20	Security Management Practices Cont.	
12	10/25	Planning for Contingencies	HW3 Due/ HW4 Assigned
	10/27	Planning for Contingencies Cont.	
13	11/1	Midterm II Review	
	11/3	Midterm II	
14	11/8	Security Maintenance	
	11/10	Security Maintenance Cont.	HW 4 Due
15	11/15	Protection Mechanisms	
	11/17	Protection Mechanisms Cont.	
16	11/22	Group Presentations	Group Project Presentation Due
	11/24	No Class	Thanks Giving
17	11/29	Group Project Discussions	
	12/01	Course Review	
18	12/06 - 12/10	Final Exams	
	12/10	Last Day of Class	
	12/11	Commencement	
19	12/14	Final Grades Due	