Navajo Technical University   http://www.navajotech.edu
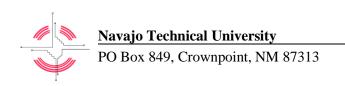
PO Box 849, Crownpoint, NM 87313   Tel: (505) 387-7401

Course Title: Information Security, Risk Management, Disaster Recovery & Assurance

Course #: MIS 530

Credit Hours: 3
Semester: Spring 2022
Cap:

Faculty: Dr. Frances C. Ijeoma   **E-mail**: fijeoma@navajotech.edu
Office: **Office Phone**:
Office Hours (face-to-face or online): **Online**
Preferred Communication (email and/or text; will respond within 24 hours): **E-mail**

Modality (face-to-face, hybrid, or online): **Online**
Class Location and Meeting Times (if face-to-face):
Meeting Hours and Online Hours (if hybrid):

Required Materials:
Textbooks: Managing Risk in Information Systems (3rd edition) by Darril Gibson; Andy Igonor, PhD
ISBN: 9781284183719

- **Cloud Labs** (Students should purchase and access the lab through JBLearning.com)

Tools:
Laptop and Internet Access: Every student is required to own a laptop and have internet access.
Lab Fee (if applicable):

Mission, Vision, and Philosophy
Mission: Navajo Technical University honors Diné culture and language, while educating for the future.

Vision: Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

Philosophy: Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íína (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

Course Description

Information assurance is concerned with protecting the reliability of information and managing risks related to the use, processing, storage, and transmission of information or data. It includes securing the systems and processes that house and manipulate the data as well. Students will learn how to identify

applicable cybersecurity risk mitigation models and apply them in an organizational context. Students will develop the knowledge and skills needed to make recommendations related to the choice of risk mitigation security controls and to provide oversight for the implementation of those controls within information technology and business solutions.

Course Outcomes	Course Assessments
Describe components of and approaches to effective risk management in an organization.	
Describe techniques for identifying, analyzing, and mitigating relevant threats, vulnerabilities, and exploits.	
Identify compliance laws, standards, best practices, and policies of risk management.	
Describe components of and approaches to effective risk assessments in an organization.	
Identify assets and activities to protect within an organization.	
Identify risk mitigation security controls and develop a risk mitigation plan.	
Perform a business impact analysis.	
Perform business continuity, disaster, and incident response planning.	

Suggested Learning Approach

In this course, you will be studying individually and within a group of your peers. As you work on the course deliverables, you are encouraged to share ideas with your peers and instructor, work collaboratively on projects and team assignments, raise critical questions, and provide constructive feedback.

Use the following advice to receive maximum learning benefits from your participation in this course:

DO	DON'T
▪ Do take a proactive learning approach ▪ Do share your thoughts on critical issues and potential problem solutions ▪ Do plan your course work in advance ▪ Do explore a variety of learning resources in addition to the textbook ▪ Do offer relevant examples from your experience ▪ Do make an effort to understand different points of view	▪ Don't assume there is only one correct answer to a question ▪ Don't be afraid to share your perspective on the issues analyzed in the course ▪ Don't be negative towards points of view that are different from yours ▪ Don't underestimate the impact of collaboration on your learning ▪ Don't limit your course experience to reading the textbook

DO	DON'T
▪ Do connect concepts explored in this course to real-life professional situations and your own experiences	▪ Don't postpone your work on the course deliverables – work on small assignment components every day

Certification Bodies and Certifications

Organization/Certification(s)	URL
Information Systems Audit and Control Association (ISACA) CGEIT, CRISC, CISA, others	https://www.isaca.org/
(ISC)^2 SSCP, CISSP, more	https://www.isc2.org/
Information Technology Infrastructure Library (ITIL/Axelos) Foundation, ITIL Managing Professional, ITIL Strategic Leader, Master	https://www.axelos.com/certifications/itil-certifications.aspx
Project Management Institute (PMI) PMI-RMP, PMP, others	https://www.pmi.org/
The Risk Management Society (RIMS) RIMS-CRMP	https://www.rims.org/home

Connections to Program Assessment (Course-Embedded Measures)

Course Activities

Week	Date	Class Topics/Reading Due	Assignments Due	Assessments
1	1/17- 1/23	Chapter 1: Risk Management Fundamentals	Discussion 1: Reasonableness and Risk **due 1/23** Assignment: Evaluating Risk Handling Strategies **due 1/23**	
	1/21	**Last day to add/drop**		
2	1/24 - 1/30	Chapter 2: Managing Risk: Threats, Vulnerabilities, and Exploits	Discussion 2: Automation and Continuous Monitoring **due 1/30** Lab: Identifying and Exploiting Vulnerabilities **due 1/30**	
3	1/31- 2/6	Chapter 3: Understanding and Maintaining Compliance	Discussion 3: HIPAA and Human Resources **due 2/6**	

			Lab: Conducting a PCI DSS Compliance Review **due 2/6** Project: **Project Part 1:** Risk Management Plan Outline and Research **due 2/6**	
4	2/7 -2/13	Chapter 4: Developing a Risk Management Plan	Discussion 4: Risk Management Roles **due 2/13** Lab: Developing a Risk Management Plan **due 2/13**	
5	2/14 -2/20	Chapter 5: Defining Risk Assessment Approaches	Discussion 5: Knowledge and Experience Impact on IT **due 2/20** Assignment: Risk Assessment Approaches **due 2/20**	
6	2/21 -2/27	Chapter 6: Performing a Risk Assessment	Discussion 6: Asset Valuation **due 2/27** Lab: Performing a Risk Assessment **due 2/27** Project: **Project Part 2:** Risk Assessment Plan **due 2/27**	
	2/25	**Graduation Petition due**		
7	2/28 – 3/6	Chapter 7: Identifying Assets and Activities to Be Protected	Discussion 7: Asset and Inventory Management **due 3/6** Lab: Creating an IT Asset Inventory **due 3/6**	
	3/7-3/11	**Chapters 1-7**	**Midterm**	
		Midterm grades due		
	3/14 - 3/18	**Spring Break**		
8	3/20 - 3/27	Chapter 8: Identifying and Analyzing Threats, Vulnerabilities, and Exploits	Discussion 8: Best Practices for Threat and Vulnerability Assessments **due 3/27** Lab: Managing Technical Vulnerabilities **due 3/27**	

9	3/28 – 4/3	Chapter 9: Identifying and Analyzing Risk Mitigation Security Controls	Discussion 9: Risk Mitigation Control Selection **due 4/3** Project: **Project Part 3: Risk Mitigation Plan due 4/3**	
	3/31	**Last day to withdraw with "W"**		
10	4/4 – 4/10	Chapter 10: Planning Risk Mitigation Throughout an Organization	Discussion 10: Risk Management and Employee Performance Plans **due 4/10** Lab: Developing a Risk Mitigation Plan **due 4/10**	
11	4/11 – 4/17	Chapter 11: Turning a Risk Assessment into a Risk Mitigation Plan	Discussion 11: Countermeasure Considerations **due 4/17** Lab: Implementing a Risk Mitigation Plan **due 4/17**	
12	4/18 – 4/24	Chapter 12: Mitigating Risk With a Business Impact Analysis Chapter 13: Mitigating Risk With a Business Continuity Plan	Discussion 12: Critical Business Function Evaluation **due 4/24** Lab: Performing a Business Impact Analysis **due 4/24** Project: **Project Part 4: Business Impact Analysis (BIA) and Business Continuity Plan (BCP) due 4/24**	
13	4/25 – 5/1	Chapter 14: Mitigating Risk With a Disaster Recovery Plan	Discussion 13: Alternative Sites and Disaster Recovery **due 5/1** Assignment: Application of Risk Management Techniques **due 5/1**	
14	5/2 – 5/8	**Project Presentation**	**Project Part 5: Final Risk** Management Plan **due 5/8**	
15	**5/9 – 5/12**	**Chapters 8-14**	**Finals**	
		Grades due to the Registrar		
	5/13	**Graduation**		

Grading Plan
Discussion: 10%   (13 Discussions)

Lab: 10%   (9 Labs)
Project(s):   25%   (Parts 1 – 5)
Assignment: 5%   (3 Assignments)
Mid-term: 25%
Final Exam: 25%

A = 100-90%
B = 89-80%
C = 79-70%
D = 69-60%
F = 59% or less

Grading Policy
Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

Participation
Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

Cell phone and headphone use
Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

Attendance Policy
Students are expected to attend all class sessions. If more than ten minutes late, students will be counted as absent. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

Study Time Outside of Class for Face-to-Face Courses
For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.

Study Time for Hybrid or Blended Courses
For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.

Study Time for Online Courses
For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.

Academic Integrity
Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor**. The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited**.

Diné Philosophy of Education
The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íína and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shiwi Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkya hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shiwi core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumoła:wa (honesty and trustworthiness), and hon kohoł lewuna:wediyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life goals successfully.

Students with Disabilities
Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (http://www.navajotech.edu/student-services#accomodations-services) in accordance with the university's Disability Accommodations Policy (see http://www.navajotech.edu/images/about/policiesDocs/Disability_Exhibit-A_6-26-2018.pdf).

Email Address
Students are required to use NTU's email address for all communications with faculty and staff.

Final Exam Date: