## **CYBR 487: Cybersecurity Framework and Management (3 credits)**

This course provides an overview of cybersecurity frameworks, their application, and management in organizations. The course covers the various cybersecurity frameworks, standards, and guidelines used to assess and manage cybersecurity risks, as well as the best practices for implementing cybersecurity frameworks in organizations. ***(****Prerequisite****:*** *CYBR 310****)***

**Course Learning Outcomes:**

By the end of the course, students will be able to:

A1. Demonstrate critical understanding of diverse cybersecurity frameworks, standards, and guidelines.

A2. Implement best practices for establishing and maintaining effective cybersecurity frameworks in organizations.

B1. Demonstrate proficiency in managing cybersecurity frameworks to enhance overall organizational security.

B2. Analyze cybersecurity risks using established frameworks, considering industry standards and guidelines.

B3. Effectively communicate cybersecurity frameworks, standards, and guidelines to stakeholders within an organizational context.

C1. Adhere to ethical responsibilities in cybersecurity, considering the impact of cybersecurity decisions on individuals and society.

**Course Learning Materials:**

* Alan Calder, NIST Cybersecurity Framework - A pocket guide, IT Governance Publishing, 2021
* William Stallings, Effective Cybersecurity: A Guide to Using Best Practices and Standards, 1st edition, 2019, pearson

**Course Content:**

1. Overview of cybersecurity landscape
2. Importance of frameworks in cybersecurity
3. Introduction to key cybersecurity frameworks
4. Practical application of cybersecurity frameworks
5. Hands-on exercises on applying frameworks
6. Case studies on successful implementation
7. Understanding and analyzing cybersecurity risks
8. Guest lecture from industry experts on real-world application.
9. Using frameworks for risk assessment
10. Real-world examples of risk assessments
11. Strategies for managing cybersecurity frameworks
12. Challenges and solutions in cybersecurity management
13. Exploration of best practices in cybersecurity frameworks Implementation strategies for enhancing security
14. Comparative analysis of industry standards
15. Hands-on activities on implementing best practices.
16. Effective communication of cybersecurity frameworks
17. Stakeholder engagement strategies
18. Integration of cybersecurity frameworks into organizational processes
19. Emerging trends in cybersecurity frameworks