

# CYBERSECURITY (CYS)

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## **CYS 505 Ethics in Cyber Security 3 credits**

This course explores real-world Cyber Security dilemmas and frameworks to identify ethical problems and how to reach ethical decisions. Its objective is to use these skills, grounded in ethical theory, to make informed decisions within fast-paced and emerging business environments. It describes how to assure that technologies are secure while helping the business meet its goals.

## **CYS 510 Research in Cyber Security 3 credits**

As part of a research project identify the critical role Cyber Security plays in organizational development. This course will explore how to employ action learning to improve the Cyber Security of the organization. Defining Cyber Security challenges from an operational and strategic perspective, the class will explore adaptive learning technique by offering proven educational theories and practices to foster the required changes in your staff. Research of existing organizational learning theories and the historical problems that occur with companies will be conducted to understand how to research these issues and provide solutions for secure technologies that enable the business.

## **CYS 530 Information Security Governance and Compliance 3 credits**

Learn how companies manage risk across their organizations utilizing audit and compliance methods to support regulatory/legal compliance to meet their business objectives. Identify how they use mechanisms such as Vendor Information Security Risk Assessments (VISRA), App Monitoring and Logging, Cloud Governance and Risk Remediation strategies to meet Compliance objectives. Examine how Policy Development and Management helps govern a best-in-class whole security solutions for an organization.

## **CYS 533 Information Security Operations 3 credits**

Examine how companies use Identity and Access Management to protect the assets of their company. Learn how Firewalls are managed by understanding how they work and how requests for changes in Firewall rules are executed. Determine how Security operations support enterprise networks

## **CYS 536 Incident, Threat, and Vulnerability Management 3 credits**

Examine how incident detection is coordinated, how they are analyzed and contained plus how incidents are mitigated and recovered. Learn how incident trends are used to determine better security strategies to thwart future incidents. Explore what technologies are used to scan enterprise environments, how vulnerabilities are discovered and how those vulnerabilities are remediated thru incident response and Patch Management. Learn about what Insider threats exist in organizations and how they are managed thru Security and Privacy Training, Compliance and Ethics Policies plus Intruder detection technologies.

## **CYS 539 Cyber Defense 3 credits**

Understand how Malware and Intrusion Analysis is conducted. Learn how security groups monitor daily events in their network and the countermeasures that are taken to combat Cyber-attacks and bad actors. Learn how tactical intelligence coordination is conducted plus how Forensic Investigations are done to determine enterprise attacks and vulnerabilities.

## **CYS 543 Managing a Secure Enterprise 3 credits**

Examine how all the Security Services work together for overall protection of an organization. Understand how Security Departments engage the organization thru security services such as Security Communications, Resource Management, Product Management, Security Metrics and Reporting and Security Business Analysis.

## **CYS 545 Cyber Security Project Deployment 3 credits**

This course identifies how to deliver on new ideas for Cyber Security strategies by practicing traditional plus agile methodologies and processes that help bring Cyber Security technologies into an enterprise. It builds on differing strategic approaches and project management techniques to manage innovation of Cyber Security initiatives. An understanding of the DevOps model that facilitates an effective organization and how it relates to delivering Cyber Security Projects will be explored.

## **CYS 550 Enterprise Cyber Security Strategies 3 credits**

This course introduces strategic and operational planning for the application of Cyber Security with heavy emphasis on the how Cyber Defense protects technology. A review of the application of strategic models for the purpose of deploying corporate strategy is explored and is married into how Cyber Security supports the technology enablement of those strategic decisions.

## **CYS 599 Cyber Security Capstone 3 credits**

This course integrates knowledge learned throughout the program. Demonstrate an understanding of Cyber Security obtained by completing a research paper addressing an issue in an industry with providing good Cyber Defense. Ethically incorporate technical and business knowledge skills through identifying key issues by doing a thorough search of academic and practitioner knowledge to support a stated thesis. This course draws upon current work, training or internship experience.