



IT 410 Information Assurance and Security

Course Number Course Name	IT 410 Information Assurance and Security
Credit Value (Breakdown of theory and lab credits)	(3,2T+1S)
Catalog Course Description	<p>This courses introduces students to the principles of assurance and security, and then applies those principles to industrial and enterprise networks and information systems. The course provides a theoretical background of traditional and modern cryptographic techniques to provide for confidentiality, integrity, and availability. Concepts are then applied to secure and assure information, using a variety of techniques and frameworks such as AAA architecture, firewall technologies, intrusion prevention systems, and virtual private networks and secure management.</p> <p>Prerequisites: EECE 230 and 330</p>
Student Learning Outcomes/Objectives /Competencies of the Course	<ol style="list-style-type: none"> 1- Secure physical installation of and administrative access of network devices. 2- Implement management and reporting features of syslog, SNMP, SSH, and NTP. 3- Describe the operation of the authentication, authorization, and accounting (AAA) protocol. 4- Deploy routers that perform AAA with a local database and server-based AAA. 5- Implement standard and extended ACLs to secure the perimeter of a network. 6- Describe IDS and IPS technologies, and implement them on a network. 7- Describe the vulnerabilities of a layer 2 infrastructure and implement counter-measures such as port security, BPDU guard, and storm control. 8- Describe the purpose, operation, and types of Virtual Private Networks (VPNs). 9- Implement remote-access and site-to-site VPN systems.
College-Wide Student Learning Outcomes	<p>IT 410 learning objectives align with the following NNMCC College Wide Goals:</p> <ol style="list-style-type: none"> 1. Critical Thought 2. Information Competency and Research

NORTHERN NEW MEXICO COLLEGE



+