COURSE TITLE & NUMBER: ITNS 2020: Linux Networking and Security  
CREDITS: 3 (Lec 1 / Lab 2)  
PREREQUISITES: ITNS 2010 - Linux Installation and Administration

CATALOG DESCRIPTION:
Linux Networking and Security covers the basic methods to configure, maintain, and troubleshoot the Linux operating system to provide network connectivity and protect against security and privacy compromises. Hands-on projects and exercises will reinforce the importance of networking and security issues. This course is designed to prepare students for Exams 3 and 4 of the Sair/GNU Linux Certification – Level 1.

OUTLINE OF MAJOR CONTENT AREAS:
1. An Introduction to Networks  
2. TCP/IP in Detail  
3. Managing Linux Computers on a Network  
4. Network Server Functions  
5. Network Server Applications  
6. Network Troubleshooting  
7. Privacy and Security  
8. Physical and Local System Security  
9. Kernel and Networking Security

COURSE OUTCOMES/OBJECTIVES/GOALS:
The student will:  
1. Students will describe DNS, applications, and Internet access.  
2. Students will describe broadcasting, address assignment, and multicast.  
3. Students will explain SMB.  
4. Students will describe networking interfaces.  
5. Students will describe firewalls.  
6. Students will describe VPN and Proxy Servers.  
7. Students will describe network troubleshooting.  
8. Students will describe intruder detection and removal.  
9. Students will describe the importance of daily cron checks.

HCC COMPETENCIES MET:
1) Working Productively and Cooperatively  
2) Communicating Clearly and Effectively  
3) Thinking Creatively and Critically  
4) Social Responsibility  
5) Value Self
STUDENT CONTRIBUTIONS:
Each student is expected to spend at least two (2) hours per week outside of class preparing for each lecture period and one (1) hour of outside study per week preparing for each lecture session. Attendance is crucial in this class.

METHODS FOR EVALUATING STUDENT LEARNING:
The final grade is determined by grades earned on lab exams, periodic quizzes, attendance, and written examinations.

ADDITIONAL INFORMATION:
A textbook is required and available in the campus bookstore. Because of the rapid changes in software and the vast selection of textbooks available, a regular evaluation of available books is completed.

AASC APPROVAL DATE: November 15, 2017
REVIEW DATE: November 2022