Course Name	Network Security	Course Code	CNET-411		
Credit Hours	3	Contact Hours	Lec	Lab	Total
			2	2	4
Track	☐ University Requirement ☐ College Requirement ☒ Core ☐ Elective ☐ INFS ☐ COMP ☒ CNET				
Level	9th Level	Prerequisite	326CNET-3		

Course Description:

This course introduces the fundamentals concepts of security goals, attacks, services, mechanisms. In addition, security mechanisms at the network, transport, and application layers are introduced. This includes IPSec, SSL. and TLS, email security, firewalls, and IDS.

The lab portion of the course is interactive such that students are given various challenges and they are assessed based on their ability to solve these challenges.

Course Objectives: This course provide the knowledge to:-

- **Understanding security goals, attacks, services, and mechanisms.**
- **Description of security mechanisms at the network, transport, and application layers.**
- **Ability to determine the appropriate security mechanism to protect the network.**
- **Analysis of firewalls and intrusion detection systems.**
- **Performing lab tasks on each theoretical topic using Linux and tools such as Nmap and Wireshark.**
- **Ability to self-study and self-assessment.**

Grading						
	☒ Exam 1	10%	☒ Assignment/Mini Project	20%	☒ Exam 2	10%
	☐ Attendance	-	☒ Lab	20%	☒ Final	40%

Text Books:

Security in Computing, Charles P. Pfleeger, Shari Lawrence Pfleeger, Jonathan Margulies, 5th Edition, Prentice Hall, Year-2015, ISBN 0134085051, 9780134085050

References:

Cryptography And Network Security, By Behrouz A. Forouzan, 1st edition, McGraw-Hill Education, Year-2010, ISBN-13 : 978-0073327532Ina Minei and Julian Lucek, "MPLS-Enabled Applications " 3rd Edition, Wiley, 2011. ISBN-13: 978-0470665459