Department:

Computer Support Technology

Course Description:

This course is designed to reinforce core concepts and technologies of networking. Key topics included are network hardware, software, and industry standard models, such as the OSI and TCP/IP models.

Course Competencies:

The learning outcomes and competencies detailed in this syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Groups for this course as approved by the Kansas Board of Regents.

Upon completion of the course, the student should be able to:

1. Identify key network concepts
2. Install and configure appropriate network devices and software
3. Describe various network topologies
4. Manage and troubleshoot a network
5. Identify best practices for network security

Course Content:

A. Differentiating between Internets, Intranets, and Extranets
B. Understanding Local Area Networks
C. Understanding Wide Area Networks
D. Network Topologies – Mapping It Al Out
E. Switches and Switching – Forwarding Traffic on a Local Network
F. Routers and Routing – Beyond a Single Network
G. Media Types – Connecting Everything Together
H. Understanding the OSI Model
I. Understanding TCP/IP
J. Understanding IPv4
K. Understanding IPv6
L. Understanding Name Resolution
M. Network Services
N. Mock Exam 1
O. Mock Exam 2

Learning Assessments:

Competencies will be assessed by assignments, case problems, quizzes, chapter tests, hands-on projects, lab assignments, a midterm test, and a final test. The test can be in the objective format or in a problem solving format.

Instructional Materials:

Textbooks: Davies, G. (2019). *Networking Fundamentals: Develop the networking skills required to pass the Microsoft MTA Networking Fundamentals Exam 98-366*, (1st ed.)*.* Packt Publishing ISBN 978-1838643508

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the "Disabilities Self-Identification Form" on our Disability Services website.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an online report about what happened so that they can get the support they need and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our Equity Grievance Policy.