



## MASTER COURSE OUTLINE

A. CPRO 2000 Network Security Fundamentals

B. COURSE DESCRIPTION:

This course provides an introduction to network security principles, application, configuration, and management. The theoretical and historical background necessary for understanding the security field in the 21<sup>st</sup> century are discussed. Current risks and threats are explored and structured methods of addressing and safeguarding critical economic assets are addressed. Students gain the broad based knowledge necessary for further study in more specialized areas of network security. This is an online course. This course prepares students for the industry standard CompTIA® Security + certificate. Prerequisites: NONE  
**(3 Cr – 3 lect, 0 lab)**

C. \*\*Core Theme: Critical Thinking

D. MAJOR CONTENT AREAS:

- History of network security
- Security threats
- Security vulnerabilities
- System security practices
- Security applications and appliances
- Access control
- Vulnerability assessments
- Security audits
- Disaster recovery
- Security policy

E. GOAL TYPES, OBJECTIVES, AND OUTCOMES:

<u>GOAL</u>	<u>OBJECTIVES</u>	<u>OUTCOMES</u>
** <u>Critical Thinking</u>	Students will be able to imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.	The student will successfully 1. identify network security threats, vulnerabilities, and risks. 2. apply this information to the development of an organizational security policy.
<u>CS</u>	identify important data, intellectual property, and critical services so that management can approve mitigation strategies or accept	1. demonstrate an understanding of network security principles and enforcement.

	identified risks with the help of a risk/cost formula.	
<u>CS</u>	identify and analyze security appliances and determine the best option to use for a given set of security requirements.	1. demonstrate an understanding of the security features offered by different security appliances and their applications.
<u>CS</u>	perform a network security audit and apply this information to formulate a security policy recommendation to upper management.	1. demonstrate an understanding of the security audit and documentation process.
<u>CS</u>	communicate with end users by formulating questions and providing answers that are appropriate to the end users' level of technological literacy.	1. participate in discussions involving current network security trends, issues, and ethics.
<u>CS</u>	demonstrate proper troubleshooting methodologies and techniques.	1. configure, monitor, and manage network security.

F. SPECIAL INFORMATION:

This course may require use of the Internet, the submission of electronically prepared documents and the use of a course management software program. Students who have a disability and need accommodations should contact the instructor or the Student Success Center at the beginning of the semester. This information will be made available in alternative format, such as Braille, large print, or current media, upon request.

G. COURSE CODING INFORMATION:

Course Code T/Class Maximum 30; Letter Grade

Revision date: 12/01/16

AASC Approval date: 1/17/17

<b>*Riverland Community College Disciplines</b>	<b>MnTC Goal Number</b>
Communication (CM)	<b>1</b>
Natural Sciences (NS)	<b>3</b>
Mathematics/Logical Reasoning (MA)	<b>4</b>
History and the Social & Behavioral Sciences (SS)	<b>5</b>
Humanities and Fine Arts (HU)	<b>6</b>

<b>**Riverland Community College Core Themes</b>	<b>MnTC Goal Number</b>
Critical Thinking (CT)	<b>2</b>
Human Diversity (HD)	<b>7</b>
Global Perspective (GP)	<b>8</b>
Ethical and Civic Responsibility (EC)	<b>9</b>
People and the Environment (PE)	<b>10</b>

\*These five MnTC Goals have been identified as Riverland Community College Disciplines.

\*\* These five MnTC Goals have been identified as Riverland Community College Core Themes.

NOTE: The Minnesota Transfer Curriculum “10 Goal Areas of Emphasis” are reflected in the five required discipline areas and five core themes noted in the Riverland Community College program of study guide and/or college catalog.

Riverland