MASTER COURSE OUTLINE

A. CPRO 1900 Cisco Networking I

B. COURSE DESCRIPTION:

The Cisco Networking Academy Program is a comprehensive e-learning program, which provides students with Internet and network technology skills essential in a global Internet economy. The NETACAD curriculum delivers; media-rich Web-based content, online assessment, virtual networking labs, and "hands-on" instructor led training and support. The curriculum provides students with the knowledge, skills, and abilities needed to succeed in networking-related careers, such as; network support technician, network administration, and network engineering. Upon completion of this course, students will have a thorough understanding of basic Internet and network technologies. This course helps prepare students for the following industry standard certifications; Cisco Certified Networking Associate (CCNA), and CompTIA Network +.
(3 Cr – 3 lect, 0 lab)

C. *Core Theme: Critical Thinking

D. RIVERLAND INSTITUTIONAL LEARNING OUTCOMES:

This course addresses the following Riverland Institutional Learning Outcome(s):
☒ ILO 1: critical thinking *(Core Theme Goal 2)*
☐ ILO 2: awareness of the larger global community *(Core Theme Goal 7 or 8)*
☐ ILO 3: ethical, engaged citizenship *(Core Theme Goal 9 or Goal 10)*
☐ ILO 4: communication and collaboration *(Discipline Goal 1 and by any learning outcome(s) involving communication or collaboration)*

E. MAJOR CONTENT AREAS:

- Data networks, communications, and the Internet
- Devices and services used to support communications across an internetwork
- Application layer protocols and services
- Presentation layer protocols and services
- Session layer protocols and services
- Transport layer protocols and services
- Network layer protocols and services
- Data link layer protocols and services
- Physical layer protocols and services

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- Fundamental routing concepts
- IP addressing and subnetting
- Cisco Command-Line Interface (CLI) commands

F. GOAL TYPES, OBJECTIVES, AND OUTCOMES:

GOAL	OBJECTIVES Students will be able to	OUTCOMES The student will successfully
*Critical Thinking	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.	1. analyze different network layer technologies and apply knowledge to design, implement, and troubleshoot network systems.
CS	identify and describe the functions of each of the seven layers of the OSI reference model.	2. demonstrate an understanding of the seven layers of the OSI reference model and how this model is used to design, implement, and support Internet communication and commerce.
CS	describe data link and network addresses and identify key differences.	1. assign the correct address types to a network simulation where packets traverse across multiple networks.
CS	design, implement, and administer physical and logical network addressing requirements.	1. assign network addresses to devices meeting given requirements.
CS	explain the importance of data networks and the Internet in supporting business communications and everyday activities.	1. demonstrate an understanding of data communications in business.
CS	describe the protocols and services provided by the OSI and TCP/IP models and how they enable business communications and everyday activities over the Internet.	1. demonstrate an understanding of protocols and services used to enable secure Internet communication and commerce.
CS	employ basic cabling and network designs to connect devices in accordance with stated objectives.	1. build a simple Internet network using routers and switches.
CS	demonstrate proper troubleshooting methodologies and techniques.	1. utilize common network utilities to verify small network operations and analyze data traffic.
CS	communicate with end users by formulating questions and providing answers that are appropriate to the end users' level of technological literacy.	1. guide a classmate through the resolution of a network problem using verbal communication in a simulated helpdesk scenario.

G. 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 Accessibility Services 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.

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H. COURSE CODING INFORMATION:

Course Code T/Class Maximum 30; Letter Grade

Revision date: 12/01/16; 11/05/24
AASC Approval date: 02/21/17; 11/19/24

*These five MnTC Goals have been identified as Riverland Community College Core Themes. Every course in the Riverland Community College curriculum shall meet outcomes from one of these themes.
**These five MnTC Goals have been identified as Riverland Community College Disciplines. Riverland's MnTC courses also shall meet outcomes from a Discipline Area.

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

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

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