CISCO II: ROUTING AND SWITCHING ESSENTIALS ARTICULATION

Pierce County Careers Connection
Dual Credit Articulation Agreement

Upon completion of a full year of high school or equivalent to the following competencies:

☐	**This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Students who complete this course will be able to perform the following functions:**
	Understand and describe basic switching concepts and the operation of CISCO switches.
	Understand and describe the purpose, nature, and operations of a router, routing tables, and the route lookup process.
	Understand and describe how VLANs create logically separate networks and how routing occurs between them.
	Understand and describe dynamic routing protocols, distance vector routing protocols, and link-state routing protocols.
	Configure and troubleshoot static routing and default routing (RIP and RIPng).
	Understand, configure, and troubleshoot Access Control Lists (ACLs) for IPv4 and IPv6 networks.
	Understand, configure, and troubleshoot Dynamic Host Configuration Protocol (DHCP) for IPv4 and IPv6 networks.
	Understand, configure, and troubleshoot Network Address Translation (NAT) operations.

A student earning a "B" grade or better may earn college credit at the following college:

<u>College</u>	<u>Course</u>	<u>Credits</u>
Bates Technical College	CRNS 107	5
Clover Park Technical College	NSSC 201	5
Pierce College	CNE 242	5

Revised: 5/2017