

**Career and Technical Education
Adapted CTE Course Blueprint
of
Essential Standards and Indicators**

Trade and Industrial Education

II14 Network Engineering Technology IV

Public Schools of North Carolina
State Board of Education • Department of Public Instruction
Academic Services and Instructional Support
Division of Career and Technical Education
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Raleigh, North Carolina
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**This Adapted CTE Course Blueprint was developed using materials from
CISCO Networking Academy Program aligned to CCNA Certification**

Adapted CTE Course Blueprint

Essential standards are big, powerful ideas that are necessary and essential for students to know to be successful in a course. Essential standards identify the appropriate verb and cognitive process intended for the student to accomplish. Essential standards provide value throughout a student's career, in other courses, and translate to the next level of education or world of work.

This document lays out the essential standards for successfully completing the Connecting Networks Course. This course covers the 4th and final part of the CCNA certification. The essential standards use Revised Bloom's Taxonomy (RBT) category verbs (remember, understand, apply, analyze, evaluate, create) that reflect the overall intended cognitive outcome of the indicators written by Cisco Networking Academy. Each essential standard and indicator reflects the intended level of learning through two dimensions; The Knowledge Dimension is represented with letters A-C, and the Cognitive Process Dimension by numbers 1-6.

The Adapted CTE Course Blueprint includes units of instruction, essential standard(s) for each unit, and the specific indicators aligned with industry certification. Also included are the relative weights of the units and essential standards within the course.

This document will help teachers plan for curriculum delivery for the year, prepare daily lesson plans, and construct valid formative, benchmark, and summative assessments. Curriculum for this course is not provided by NCDPI. Connecting Networks competencies are used as the foundation of this course. The use of Cisco Networking Academy program curriculum and assessments are used for this course. North Carolina Department of Public Instruction (NCDPI) approves the 3rd party assessment written and validated by a Cisco Instructor Training Center (ICT). The 3rd party post assessment will be in Thinkgate. Assessment for this course is written at the level of the **ESSENTIAL STANDARD** and assesses the intended outcome of the sum of its indicators.

For additional information about this blueprint, contact the Division of Career and Technical Education, North Carolina Department of Public Instruction, 6361 Mail Service Center, Raleigh, North Carolina 27699-6361.

Reference: Anderson, Lorin W. (Ed.), Krathwohl, David R. (Ed.), et al., *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*, Addison Wesley Longman, Inc., New York, 2001.

Interpretation of Columns on the NCDPI Adapted CTE Course Blueprint

No.	1	2	3	4
Heading	Essential Std #	Unit Titles, Essential Standards, and Indicators	Course Weight	RBT Designation
Column information	Unique course identifier and essential standard number.	Statements of unit titles, essential standards per unit, and specific indicators per essential standard. If applicable, includes % for each indicator.	Shows the relative importance of each unit and essential standard. Course weight is used to help determine the percentage of total class time to be spent on each essential standard.	Classification of outcome behavior in essential standards and indicators in Dimensions according to the Revised Bloom's Taxonomy. Cognitive Process Dimension: 1 Remember 2 Understand 3 Apply 4 Analyze 5 Evaluate 6 Create Knowledge Dimension: A Factual Knowledge B Conceptual Knowledge C Procedural Knowledge

Career and Technical Education conducts all activities and procedures without regard to race, color, creed, national origin, gender, or disability. The responsibility to adhere to safety standards and best professional practices is the duty of the practitioners, teachers, students, and/or others who apply the contents of this document.

Career and Technical Student Organizations (CTSO) are an integral part of this curriculum. CTSOs are strategies used to teach course content, develop leadership, citizenship, responsibility, and proficiencies related to workplace needs.

**CTE Course Blueprint of Essential Standards
II14 NETWORK ENGINEERING TECHNOLOGY IV**
(Recommended hours of instruction: 135 or 150)

Essential Std #	Units, Essential Standards, and Indicators (The Learner will be able to:)	Course Weight	RBT Designation
1	2	3	4
	Total Course Weight	100%	
1.00	Hierarchical Network Design	9%	B2
2.00	Connecting to the WAN	11%	B2
3.00	Point-to-Point Connections	12%	C3
4.00	Frame Relay <input type="checkbox"/>	8%	C3
5.00	Network Address Translation for IPv4 <input type="checkbox"/>	14%	C3
6.00	Broadband Solutions <input type="checkbox"/>	10%	B2
7.00	Securing Site-to-Site Connectivity <input type="checkbox"/>	13%	B2
8.00	Monitoring the Network <input type="checkbox"/>	12%	B2
9.00	Troubleshooting the Network <input type="checkbox"/>	11%	C3