

VoCATS Course Blueprint

Trade and Industrial Education

7921 Drafting I

*Public Schools of North Carolina
State Board of Education • Department of Public Instruction
Curriculum and School Reform Services
Division of Instructional Services*

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VoCATS Course Blueprint

A course blueprint is a document laying out the framework of the curriculum for a given course.

Shown on the blueprint are the units of instruction, the core competencies in each unit, and the specific objectives for each competency. The blueprint illustrates the recommended sequence of units and competencies and the cognitive and performance weight of the objective within the course.

The blueprint should be used by teachers to plan the course of work for the year, prepare daily lesson plans, construct instructionally valid interim assessments. Statewide assessments are aligned directly with the course blueprint.

For additional information about this blueprint, contact program area staff. For additional information about VoCATS, contact program area staff or VoCATS, Career-Technical Education, Division of Instructional Services, North Carolina Department of Public Instruction, 301 North Wilmington Street, Raleigh, North Carolina 27601-2825, 919/807-3876, email: rwelfare@dpi.state.nc.us.

Interpretation of Columns on VoCATS Course Blueprints

No.	Heading	Column information
1	Comp# Obj.#	Comp=Competency number (two digits); Obj.=Objective number (unique course identifier plus competency number and two-digit objective number).
2	Unit Titles/Competency and Objective Statements	Statements of unit titles, competencies per unit, and specific objectives per competency. Each competency statement or specific objective begins with an action verb and makes a complete sentence when combined with the stem "The learner will be able to. . ." (The stem appears once in Column 2.) Outcome behavior in each competency/objective statement is denoted by the verb plus its object.
3	Time Hrs	Space for teachers to calculate time to be spent on each objective based on the course blueprint, their individual school schedule, and analysis of students' previous knowledge on the topic.
4&5	<u>Course Weight</u> Cognitive Performance	Shows the relative importance of each objective, competency, and unit. Weight is broken down into two components: cognitive and performance. Add the cognitive and performance weights shown for an objective in columns 4 and 5 to determine its total course weight. Course weight is used to help determine the percentage of total class time that is spent on each objective. The breakdown in columns 4 and 5 indicates the relative amount of class time that should be devoted to cognitive and performance activities as part of the instruction and assessment of each objective. Objectives with performance weight should include performance activities as part of instruction and/or assessment.
6	Type Behavior	Classification of outcome behavior in competency and objective statements. (C=Cognitive; P=Performance)
7	Integrated Skill Area	Shows links to other academic areas. Integrated skills codes: A=Arts; E=English Language Arts; CD=Career Development; CS=Information/Computer Skills; H=Healthful Living; M=Math; SC=Science; SS=Social Studies.
8	Core Supp	Designation of the competencies and objectives as Core or Supplemental. Competencies and objectives designated "Core" must be included in the Annual Planning Calendar and are assessed on the statewide assessments..

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TRADE AND INDUSTRIAL EDUCATION
COURSE BLUEPRINT for 7921 DRAFTING I
(Recommended hours of instruction: 135-180)

Comp # Obj #	Unit Titles/Competency and Objective Statements (The Learner will be able to:)	Time Hours	Course Weight		Type Behavior	Integrated Skill Area	Core Supp
			Cognitive	Performance			
			100%				
	Total Course Weight		54%	46%			
A	LEADERSHIP						
001.	Demonstrate basic business meeting skills and goal setting.		3%	1%	C3P	CS/CD	Core
001.01	<i>Demonstrate basic business meeting skills.</i>		1%	1%	C3P	CS	Core
001.02	<i>Demonstrate personal and organizational goals.</i>		1%		C3	CS	Core
001.03	<i>Identify career goals and opportunities related to engineering and technical graphics.</i>		1%		C3	CD	Core
B	SKETCHING						
002.	Demonstrate basic sketching skills and techniques.		4%	6%	C3P	A/CS	Core
002.01	<i>Identify the concepts related to sketching.</i>		1%		C1	A/CS	Core
002.02	<i>Explain the concepts related to sketching multiviews and pictorials.</i>		3%		C3	A/CS	Core
002.03	<i>Construct an isometric sketch.</i>			2%	C3P	A/CS	Core
002.04	<i>Construct an oblique sketch.</i>			2%	C3P	A/CS	Core
002.05	<i>Construct a multiview sketch.</i>			2%	C3P	A/CS	Core
C	BASIC DRAFTING SKILLS						
003.	Demonstrate basic drafting skills and techniques.		5%	5%	C3P	A/CS	Core
003.01	<i>Explain the correct use manual drafting equipment and supplies.</i>		2%		C1	A/CS	Core
003.02	<i>Explain correct lettering technique.</i>		1%		C2	A/CS	Core
003.03	<i>Demonstrate correct drawing procedures.</i>		2%		C3	A/CS	Core
003.04	<i>Construct a single-view drawing.</i>			5%	C3P	A/CS	Core
D	BASIC GEOMETRIC TERMS AND CONSTRUCTION						
004.	Explain geometric terms and apply geometric construction techniques.		4%	6%	C3P	M/CS	Core
004.01	<i>Explain selected geometric terms.</i>		2%		C1	M/CS	Core
004.02	<i>Explain the procedures for drawing standard geometric constructions.</i>		2%		C3	M/CS	Core
004.03	<i>Construct drawings that require geometric constructions.</i>			6%	C3P	M/CS	Core

Comp # Obj #	Unit Titles/Competency and Objective Statements (The Learner will be able to:)	Time Hours	Course Weight		Type Behavior	Integrated Skill Area	Core Supp
			Cognitive	Performance			
E	MULTIVIEW DRAWING						
005.	Demonstrate orthographic projection techniques and principles as they apply to multiview drawings.		18%	8%	C3P	A/CS	Core
005.01	<i>Explain the concepts and principles underlying the creation of multiview drawings.</i>		7%		C2	CS	Core
005.02	<i>Visualize objects and views.</i>		11%		C3	A/CS	Core
005.03	<i>Construct multiview drawings.</i>			8%	C3P	A/CS	Core
F	BASIC DIMENSIONING SKILLS						
006.	Demonstrate basic dimensioning skills.		7%	7%	C3P	CS	Core
006.01	<i>Identify the accepted standards for mechanical dimensioning practices.</i>		4%		C1	CS	Core
006.02	<i>Explain the procedures for dimensioning mechanical drawings.</i>		3%		C3	CS	Core
006.03	<i>Construct dimensions on an engineering drawing.</i>			7%	C3P	CS	Core
G	COMPUTER AIDED DESIGN AND DRAFTING						
007.	Demonstrate basic CAD commands and techniques.		13%	13%	C3P	CS	Core
007.01	<i>Explain basic CADD terms and concepts.</i>		1%		C2	CS	Core
007.02	<i>Explain basic 2D CAD commands.</i>		9%		C2	CS	Core
007.03	<i>Explain basic 3D modeling commands and concepts.</i>		3%		C2	CS	Core
007.04	<i>Construct a 2D CAD drawing.</i>			9%	C3P	CS	Core
007.05	<i>Construct a 3D CAD model.</i>			4%	C3P	CS	Core