

# VoCATS Course Blueprint

## Business and Information Technology Education

### **6340-FOUNDATIONS OF INFORMATION TECHNOLOGY**

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

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*This blueprint has been reviewed by business and industry representatives for technical content and appropriateness for the industry. Contact [bcrockett@dpi.state.nc.us](mailto:bcrockett@dpi.state.nc.us) for more information.*

## 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, 6358 Mail Service Center, Raleigh, North Carolina 27699-6358, 919/807-3876, e-mail: [rwelfare@dpi.state.nc.us](mailto: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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## BUSINESS AND INFORMATION TECHNOLOGY EDUCATION COURSE BLUEPRINT for 6340-FOUNDATIONS OF INFORMATION TECHNOLOGY

(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			
1	2		4	5	6	7	8
			<b>100%</b>				
	<b>Total Course Weight</b>		<b>48%</b>	<b>52%</b>			
<b>A</b>	<b>FOUNDATIONS OF INFORMATION TECHNOLOGY</b>		<b>8%</b>	<b>4%</b>			
<b>FIT01.00</b>	<b>Investigate Basic Information Technology Systems.</b>		<b>8%</b>	<b>4%</b>	<b>C3P</b>	<b>C/M/SC/SS</b>	<b>Core</b>
<i>FIT01.01</i>	<i>Trace the historical development of information technology systems.</i>		1%	1%	C3P	C/SS	Core
<i>FIT01.02</i>	<i>Identify computer types and components of computer architecture.</i>		2%	3%	C3P	C/SC	Core
<i>FIT01.03</i>	<i>Describe types of software.</i>		1%		C2	C/SC	Core
<i>FIT01.04</i>	<i>Discuss multiple types of interactive media.</i>		1%		C1	C/M//SC/SS	Core
<i>FIT01.05</i>	<i>Recognize characteristics of network systems.</i>		1%		C1	C/M//SC/SS	Core
<i>FIT01.06</i>	<i>Identify aspects of information and support systems.</i>		1%		C1	C	Core
<i>FIT01.07</i>	<i>Examine programming and software development.</i>		1%		C1	C/M//SC/SS	Core
<b>B</b>	<b>INTERACTIVE MEDIA</b>		<b>10%</b>	<b>13%</b>			
<b>FIT02.00</b>	<b>Investigate Interactive Media.</b>		<b>10%</b>	<b>13%</b>	<b>C3P</b>	<b>C/M/SC/SS</b>	<b>Core</b>
<i>FIT02.01</i>	<i>Identify characteristics, file structures, and formats of interactive media.</i>		2%	1%	C3P	C/M/SC/SS	Core
<i>FIT02.02</i>	<i>Demonstrate integration of video clips with interactive media.</i>		1%	2%	C3P	C/M/SC/SS	Core
<i>FIT02.03</i>	<i>Create an interactive web site.</i>		2%	5%	C3P	C/M/SC/SS	Core
<i>FIT02.04</i>	<i>Create a multimedia presentation.</i>		2%	5%	C3P	C/M/SC/SS	Core
<i>FIT02.05</i>	<i>Describe the development of virtual reality in computer applications.</i>		1%			C/M/SC/SS	Core
<i>FIT02.06</i>	<i>Identify uses of global information and positioning systems.</i>		1%		C1	C/M/SC/SS	Core
<i>FIT02.07</i>	<i>Discuss ethics and copyright issues for multimedia.</i>		1%		C2	C/SS	Core

<b>C</b>	<b>NETWORK SYSTEMS</b>		<b>8%</b>	<b>9%</b>			
<b>FIT03.00</b>	<b>Identify Network Systems and their Components.</b>		<b>8%</b>	<b>9%</b>	<b>C3P</b>	<b>C/M/SC/SS</b>	<b>Core</b>
<i>FIT03.01</i>	<i>Explain network topologies and their evolution.</i>		1%	1%	C3P	C/M/SC/SS	Core
<i>FIT03.02</i>	<i>Compare enterprise network designs and features.</i>		1%		C2	C/M/SC/SS	Core
<i>FIT03.03</i>	<i>Compare hardware/architecture components.</i>		2%	3%	C3P	C/M/SC/SS	Core
<i>FIT03.04</i>	<i>Demonstrate network applications and diagnostic skills.</i>		2%	5%	C3P	C/M/SC/SS	Core
<i>FIT03.05</i>	<i>Explain features of network maintenance.</i>		1%		C2	C/M/SC/SS	Core
<i>FIT03.06</i>	<i>Identify levels of administrative hierarchy.</i>		1%		C1	C/M/SC/SS	Core
<b>D</b>	<b>INFORMATION SUPPORT AND SERVICES</b>		<b>10%</b>	<b>17%</b>			
<b>FIT04.00</b>	<b>Examine Information and Support Systems.</b>		<b>10%</b>	<b>17%</b>	<b>C3P</b>	<b>C/M/SC/SS</b>	<b>Core</b>
<i>FIT04.01</i>	<i>Identify technical support categories.</i>		2%		C2	C/M/SC/SS	Core
<i>FIT04.02</i>	<i>Develop a relational database management system (DBMS)</i>		3%	3%	C3P	C/M/SC/SS	Core
<i>FIT04.03</i>	<i>Develop problem solving and diagnostic skills.</i>		1%	3%	C3P	C/M/SC/SS	Core
<i>FIT04.04</i>	<i>Interpret documentation, support materials, and reference manuals.</i>		1%	2%	C3P	C/M/SC/SS	Core
<i>FIT04.05</i>	<i>Develop public relations skills.</i>		1%	1%	C3P	C/CD/SS	Core
<i>FIT04.06</i>	<i>Identify security, ethical issues, and user profiles.</i>		1%		C1	C/M/SC/SS	Core
<i>FIT04.07</i>	<i>Design a comprehensive enterprise information system.</i>		1%	8%	C3P	C/M/SC/SS	Core
<b>E</b>	<b>PROGRAMMING AND SOFTWARE DEVELOPMENT</b>		<b>9%</b>	<b>8%</b>			
<b>FIT05.00</b>	<b>Investigate Programming and Software Development (Engineering).</b>		<b>9%</b>	<b>8%</b>	<b>C3P</b>	<b>C/M/SC/SS</b>	<b>Core</b>
<i>FIT05.01</i>	<i>Identify object-oriented programming languages.</i>		2%		C1	C/M/SC/SS	Core
<i>FIT05.02</i>	<i>Describe the program development cycle.</i>		2%	2%	C3P	C/M/SC/SS	Core
<i>FIT05.03</i>	<i>Identify common language statements, functions, structures, elements, procedures and controls.</i>		4%	2%	C1	C/M/SC/SS	Core
<i>FIT05.04</i>	<i>Develop an object-oriented program.</i>		1%	4%	C3P	C/M/SC/SS	Core
<b>F</b>	<b>CAREER AND LEADERSHIP DEVELOPMENT</b>		<b>3%</b>	<b>1%</b>			
<b>FIT06.00</b>	<b>Demonstrate leadership and employability skills.</b>		<b>3%</b>	<b>1%</b>	<b>C3P</b>	<b>C/M/SC/SS</b>	<b>Core</b>
<i>FIT06.01</i>	<i>Exhibit effective leadership and team skills in planning and organizing a business or organization meeting.</i>		1%	1%	C3P	C/M/SC/SS	Core
<i>FIT06.02</i>	<i>Identify career options in information technology.</i>		2%		C1	C/M/SS/CD	Core