NORTH CAROLINA
CAREER AND TECHNICAL EDUCATION
PLANNING GUIDE

AGRICULTURAL EDUCATION

BUSINESS, FINANCE, AND INFORMATION TECHNOLOGY EDUCATION

CAREER DEVELOPMENT EDUCATION

FAMILY AND CONSUMER SCIENCES EDUCATION

HEALTH SCIENCE EDUCATION

MARKETING AND ENTREPRENEURSHIP EDUCATION

TECHNOLOGY ENGINEERING AND DESIGN EDUCATION

TRADE AND INDUSTRIAL EDUCATION

PUBLIC SCHOOLS OF NORTH CAROLINA
State Board of Education | Department of Public Instruction :: Career and Technical Education

2012

NC DEPARTMENT OF PUBLIC INSTRUCTION

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North Carolina
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MISSION AND PURPOSE

The mission of Career and Technical Education (CTE) is to empower students to be successful citizens, workers and leaders in a global economy.

CORE VALUES

• **Quality**	Commitment to excellence in everything we do
• **High Expectations**	Continually striving to reach optimum performance
• **Innovation**	The convergence of creative leadership, cutting-edge curriculum design, and effective instructional delivery for an ever-changing global economy
• **Dignity of all Occupations**	Work that is respected and has meaning and value to the individual, the employer, and society regardless of the level of financial compensation
• **Lifelong Learning**	The ability to adapt and upgrade individual skills in a rapidly changing world

VISION
- Students view CTE as an integral part of the "whole school experience."
- Parents recognize that CTE is paramount to achieving educational and career goals.
- North Carolina retains and successfully recruits new business and industry because of a well-prepared workforce.
- Partnerships within the educational community provide a seamless transition to educational and career goals.

PREPARING STUDENTS TO BE CAREER AND COLLEGE READY

Career and Technical Education fulfills an increasingly significant role in school reform efforts. Policy goals established in *A Crisis of Relevance: How NC Must Innovate to Graduate All Students Career- and College-Ready* include the following strategies for improving overall student achievement through better utilization of Career and Technical Education:

- Make Career and Technical Education a valuable part of all students' overall high school experience and use it to help them prepare for postsecondary education and/or training and career success.
- Drive innovation and creativity in the state's high schools by developing students' skills in entrepreneurialism to accelerate their career interests.
- Transform the culture of education in North Carolina so every school produces lifelong learners who are both academically skilled and career-ready.
- Expand the assistance available to high school students to enable them to make both wise academic and career choices and to achieve their goals for the future.
- Connect business leaders with educators in a unified effort to help students understand the relevance of their education to their future goals and prepare them with the knowledge, talent and skills valued and needed in today's workplace.
- Build on existing governance structures to bring state, regional and local leaders in education, workforce and economic development together to support and grow North Carolina's economy.

A Crisis of Relevance is a 2010 report of the State Superintendent's Career-Ready Commission, a statewide group of business, education, and government leaders who were charged with making recommendations to improve the level of students' career and college readiness.

All programs in Career and Technical Education are designed to contribute to the broad educational achievement of students through focus on the following:

- Identify, organize, plan, and allocate resources – time, money, materials and facilities, and human resources.
- Work with others by participating as a team member, serving clients/customers, negotiating, and working with diversity.
- Acquire and use information.
- Work with and operate effectively within social organizations and technological systems.
- Work with a variety of technologies.
- Contribute to the development of reading, writing, listening, speaking, and mathematical skills.
- Contribute to the development of thinking creatively, making decisions, solving problems, and reasoning.

STATE BOARD OF EDUCATION RESPONSIBILITIES

The State Board of Education is responsible for providing direction and leadership to Career and Technical Education. The State Board of Education's guidelines are outlined in the *ABCs of Public Education* and the *Basic Education Program.*

The ABCs has three major emphases:

- Accountability: Schools are held accountable for student progress. The teachers and principal at each school are responsible for how well they teach children.
- Basics: Schools are to focus on the care of a good, solid education; reading, writing, and mathematics.
- Control: Individual schools are given maximum flexibility to decide where to channel their efforts and their resources to achieve success.

The Basic Education Program for North Carolina's Public Schools describes the common core of knowledge and skills that every child shall command when he or she graduates from high school. Career and Technical Education is outlined in the *Basic Education Program.*

STRATEGIC PLAN

The *North Carolina CTE Strategic Plan,* created by leaders in CTE and in the state's business community, provides a framework set of goals to ensure CTE in North Carolina is not only relevant in meeting the needs of education outcomes, but also prepares our graduates with the required academic and marketable workplace skills to compete on a global stage in the 21st century.

Each goal is driven by a set of core values: quality, dignity of all occupations, high expectations, innovation, and lifelong learning. All other elements of the plan were developed to align to these values, including the mission and vision elements. The stakeholders believe that if the goals and the CTE Marketing Plan are achieved, then North Carolina's Career and Technical Education Program will be a major asset and resource ready to support North Carolina's education, workforce, and economic development strategies.

FEDERAL ROLE IN CAREER AND TECHNICAL EDUCATION

The Carl D. Perkins Career and Technical Education Act of 2006 provides for federal oversight of Career and Technical Education. The NC State Plan for Career and Technical Education describes how North Carolina will meet the requirements of the Perkins Act and how federal funds can be spent.

NORTH CAROLINA GRADUATION REQUIREMENTS

North Carolina high school students are expected to meet specific course and credit requirements in order to receive a high school diploma. These requirements differ depending on when students entered ninth grade for the first time.

Students who entered ninth grade in 2008-2009 and earlier: These students must meet the requirements for the College University Prep, College Tech Prep, Career Prep, or Occupational courses of study. To meet the requirements of the College Tech Prep or Career Prep courses of study, students must earn a four-credit concentration in a Career and Technical Education area, arts discipline, or JROTC. Courses from the 2004 Standard Course of Study count as Technical Credits in 10 Career Pathways developed cooperatively with the NC Community College System.

Students who entered ninth grade in 2009-2010 and later: These students must meet the requirements for Future-Ready Core (FRC). With FRC requirements, the state Board of Education "strongly recommends" but does not require a four-credit concentration in CTE, Arts Education, JROTC, or any other subject area. A number of local education agencies (school systems) require such a concentration. CTE concentrations are developed in 16 Career Clusters™. Students may earn four technical credits in any combination of courses from the 2004 Standard Course of Study or 2012 Essential Standards, so long as the courses are identified as counting toward a particular Career Cluster.

Individual school systems may have additional graduation requirements.

CAREER CLUSTERS™ AND PROGRAM AREAS

Career Clusters™ are broad groupings of occupations/career specialties, organized by common knowledge and skills required for career success. There are 16 Career Clusters™ and 79 related pathways (sub groupings of occupations/career specialties). Supported by Carl D. Perkins 2006 legislation, Career Clusters™ are an organizing tool for curriculum design, school guidance, and a framework for seamless transition to career and college.

Career Clusters™ link what students learn in school with knowledge and skills needed for success in career and college. They identify programs of study that connect secondary school with two- and four-year colleges, graduate school, and the workplace so students can link what they learn in school and what they can do in the future.

All NC CTE courses align to the Career Clusters™. Each course is placed in a Career Cluster based on a set of knowledge and skills common to all careers in the entire Career Cluster. Industry-validated knowledge and skills statements of student expectations identify what the student should know and be able to do. They prepare students for success in a broad range of occupations/career specialties. Some CTE courses cross over all 16 Career Clusters™. The 16 Career Clusters™ are:

- Agriculture, Food & Natural Resources
- Architecture &Construction
- Arts, A/V Technology & Communications
- Business Management & Administration
- Education &Training
- Finance
- Government & Public Administration
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections & Security
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

In North Carolina, Career Clusters™ are supported by eight program areas, with each area having school-based, work-based, or community-based learning opportunities.

- Agricultural Education
- Business, Finance, and Information Technology Education
- Career Development
- Family and Consumer Science Education
- Health Science Education
- Marketing and Entrepreneurship Education
- Technology Engineering and Design Education
- Trade and Industrial Education

Combined with other academic offerings, Career and Technical Education assists all enrollees with career goals and high school graduation requirements. Students are to have a career development plan outlining courses to be taken to meet a tentative career objective and obtain a high school diploma.

DETERMINING PROGRAM OFFERINGS

When determining local program offerings for a school or a total school system, local planning personnel should organize a comprehensive and appropriate sequence of Career and Technical Education offerings for students enrolled in grades 6-12. It is critical to the success of a program's implementation or expansion that the following planning precede student enrollment. The process will ensure the support of the community, school system, and students toward the program. Career and Technical Education planners should determine local program and curriculum offerings by completing the following minimum requirements:

1. Select an advisory committee composed of business, industry, and community representatives who jointly collaborate with educators in the decision-making process.
2. Compile and analyze local, state, and national data:
   a. Availability of resources and technology.
   b. Changes in population characteristics.
   c. Labor needs in new and emerging occupations, including small business ownership.
   d. Labor needs in existing occupations and Career Clusters™ with greater than average anticipated growth.

e. Rates of increase or decrease in employment projected for the service sector of the public and private economy.
f. Projected increase in occupations requiring technical skills.
g. Impact of technology on consumer decision making.
h. Impact of managing personal, family, and work lives.
i. Community and technical college offerings.
j. Projected student demand in Career Clusters™ based on an assessment of student needs, interests, and aspirations.
k. Whether the program will contribute to graduation requirements specified by the State Board of Education

3. Select a licensed teacher who can begin contributing to the organizational operation of the program.
4. Design and organize classroom/laboratory facilities and obtain equipment, supplies, books, and materials.
5. Identify course blueprints, with competencies and objectives, and classroom itembanks, to serve as guides for planning and evaluating instruction. These materials may be available from the CTE state office. In addition, teachers may need time to develop on-the-job skills and the knowledge required for teaching the course.
6. In the case of a locally designed course, a Local Course Offering (LCO) application must be approved prior to advertising the course and enrolling students.

STUDENT ACHIEVEMENT AND ACCOUNTABILITY

Student achievement and progress may be evaluated by using measures such as:

- Written and oral pre- and postassessments.
- Performance tests with teacher or employer rating checklists including [industry credentials](#).
- Performance gains.
- Observation of performance in class and on-the-job settings by teachers and job supervisors.
- Evaluation of projects and products completed by the student, using checklists and rating scales.
- Follow-up surveys of students.

Testing instruments and procedures may be designed locally or obtained from another source. Sources include the computerized classroom banks and benchmark assessments available from the North Carolina Department of Public Instruction. This resource is a part of the Career and Technical Education Instructional Management System, which is called NC Elements.

To meet requirements of the Carl D. Perkins Career and Technical Education Act of 2006, Career and Technical Education must report annual progress on eight performance indicators:

- 1S1: Academic Attainment –Reading/Language Arts
- 1S2: Academic Attainment – Mathematics
- 2S1: Technical Skill Attainment
- 3S1: Secondary School Completion
- 4S1: Student Graduation Rates
- 5S1: Secondary Placement
- 6S1: Nontraditional Participation
- 6S2: Nontraditional Completion

Performance on these measures is calculated using reports of enrollment, follow-up surveys of concentrators, performance on state-generated and third-party postassessments, and student achievement of business and industry certifications and credentials. Other sources include labor market, demographic, teacher, student, and program data. This information is used in making programmatic decisions, for program review and improvement, for guidance, and as a basis for marketing Career and Technical Education to internal and external audiences.

State and local targets are negotiated each year. Information on performance can be viewed on the NC CTE Local Planning System. Visitors can log in with the username guest and password guest.

CREDENTIALS IN CTE

The attainment of an industry-recognized credential ensures that students graduate from high school globally competitive for work and postsecondary education with validated 21st century skills.

When evaluating credentials for students, six critical components are considered. The credential:

- Is industry-recognized.
- Meets high-skill, high-demand, or high-wage current or emerging occupations.
- Adds value for students seeking employment or postsecondary education.
- Provides students with enhanced employment opportunities.
- Is developmentally appropriate for high school students.
- Is cost effective.

Credentials provide evidence of authority, status, and rights. Typically, a credential is a paper document. A credential may include, but is not limited to, a certification, multiple certifications, a license, an achieved occupational competency assessment, a diploma, or college degree.

Certification is industry recognition or confirmation of subject knowledge or the ability to perform certain tasks. The focus is on assessing the attainment of current experience, knowledge, and skill base.

License is formal permission from a governmental authority to perform certain tasks that are regulated by the government.

ESSENTIAL STANDARDS

The 2012 CTE Essential Standards document was approved by the North Carolina State Board of Education in June 2011 and goes into effect for the 2012-2013 academic year. The document contains program area and course descriptions and links to essential standards by course. This information was previously part of the Career and Technical Education Standard Course of Study Guide, but has been revised as part of the North Carolina Department of Public Instruction Accountability and Curriculum Reform Effort and emphasis on Essential Standards. Local Education Agency (LEA) CTE administrators work with individual schools to select appropriate courses from among those in this document.

Each year the NC Department of Public Instruction publishes an [Index of Curriculum](#), which lists the latest version of each course and each supporting blueprint and curriculum, and an [Assessment Index](#), which indicates the source of assessments used with courses in the Essential Standards.

Career and Technical Education in the North Carolina Department of Public Instruction is responsible for managing courses in the Essential Standards. Four types of courses are available.

Courses Developed by the Department of Public Instruction

Courses developed by the state are designed to aligned with program area national standards and meet the needs/standards of business and industry. They include a blueprint of essential standards, supporting objectives, and relative objective weights. These courses provide a curriculum product and aligned assessments. All products developed since 2006 are aligned using the [Revised Bloom's Taxonomy](#).

Courses Adapted by the Department of Public Instruction

In some cases, curriculum is available from multiple vendors and a blueprint is needed to direct the learning of students. An Adapted Course Blueprint is developed with essential standards, indicators, and relative essential standard weights. This type of blueprint is often used when an industry credential is available for the course.

Courses Using Adopted Curriculum

In some cases, a sole source is recognized as a provider of curriculum in a specialty area, and the course is adopted fully from a third-party vendor. Materials for these courses are usually purchased by the LEA and typically include assessments.

Courses Approved as Local Course Options

If a LEA recognizes needs that are not addressed by courses in the Essential Standards, that LEA can request authorization to offer a Local Course Option. A Local Course Option requires considerable advance planning and preparation. Each local course must be approved before it is advertised and offered to students.

A Local Course Option should be used to:

- Provide for innovation, but not duplication of courses in the Essential Standards.
- Meet unique local needs.
- Work in partnership with local stakeholders.
- Offer career potential that is permanent and not transitory or temporary in nature.
- Assure employment opportunities for local students.
- Support the purposes of CTE.
- Promote high-skill, high-wage, high-demand, and emerging occupations.

The request must be made and approved before the Local Course Option can be advertised and offered. Timelines, forms, and processes can be found in the Local Course Application folder on the secure CTE FTP site and on the Local Planning System.

PERSONNEL

Local boards of education are responsible for securing the persons best qualified for their Career and Technical Education programs. CTE staff includes teachers, administrators, and support personnel such as career development, special populations, and instructional management coordinators. Selection must be subject to licensure standards approved by the State Board of Education.

Additional information related to licensure may be obtained by referring to the licensure guidelines available from NCDPI Licensure.

TEACHER RESPONSIBILITIES

Career and Technical Education teachers should have the personal qualities, professional preparation, appropriate license, and work experience to carry out their teaching responsibilities effectively. The number and variety of course offerings determine the number of CTE teachers needed in a school. Single teacher staffing can and will limit the number of courses offered. A sequence that extends from introductory study to specialized occupational areas usually requires multiple staffing.

The major duties of CTE teachers include the following:

- Preparing and implementing instructional plans.
- Working with business/industry representatives.
- Evaluating student progress.
- Implementing career and technical student organization leadership and instructional activities in and out of the classroom.
- Organizing and maintaining tools, equipment, and the facility.
- Maintaining required industry certification if applicable.

Teachers may also have responsibility for using work-based learning activities such as cooperative on-the-job training, internships, apprenticeships, and supervision of school-based enterprises. Sponsoring of career and technical student organizations requires planning meetings, both at the local and regional levels, which may occur in the evening or on weekends. One lead advisor should be appointed to coordinate career and technical student organizations activities and responsibilities for each program area.

Each of these major categories requires adequate time for preparation, often prior to school and after regular instructional time. Additional time should be provided if the teacher maintains laboratory equipment or coordinates work-based learning. Teachers should have adequate time for instructional preparation.

INSTRUCTIONAL MANAGEMENT

North Carolina Career and Technical Education has developed a statewide computerized Instructional Management System called NC Elements. NC Elements allows CTE teachers to access classroom itembanks and benchmark assessments aligned to a course blueprint, develop and administer interim assessments throughout

the course, and track student mastery of course objectives. Assessments can be administered online or with bubble sheets and scored immediately providing students and teachers instant feedback on student progress in the course.

Secure statewide postassessments, also aligned to course blueprints, are administered and scored using NC Elements. Results are uploaded directly to NCDPI for use in the state's accountability system.

Instructional management coordinators (IMCs) use data from the system to work with teachers to improve student outcomes by identifying students who need extra work – and even pinpointing their areas of deficiency by objective. In addition, IMCs can use data to help teachers identify their own opportunities for continuous improvement.

PROFESSIONAL DEVELOPMENT

Classroom practice and school leadership in North Carolina will be improved through tailored, intensive professional development that includes follow-up, support, practice, feedback, and evaluation. It is a collaborative effort that provides every student access to a competent, caring, highly qualified teacher. All fiscal and human resources within the educational community support classroom instruction and interactions that prepare students to thrive and contribute to a complex, dynamic, global, and multi-cultural society. Activities result in implementation of classroom practices that lead to improved student achievement.

North Carolina's Professional Development Standards provide the vision and framework for making professional development more responsive to the learning needs of both educators and students.

FUNDING

Career and Technical Education programs are funded through a combination of state, federal, and local resources. The State Board of Education is committed to a funding formula that provides state funds for the support of a statewide secondary program. Federal Career and Technical Education funds allocated to local boards of education are to be spent according to federal criteria and purposes.

Local boards of education receive state and federal funds on the basis of an annual application for Career and Technical Education. This plan is to be developed with the advice of local advisory committees and is to be consistent with criteria set up by legislation and State Board of Education policy. The Career and Technical Education funds may be used to:

- Employ CTE instructional and supportive personnel.
- Conduct CTE professional development that is in accord with state and federal guidelines.
- Purchase CTE instructional materials, supplies, and equipment.

Federal career and technical funds are to be used to supplement the amount of local and state funds that would, in the absence of career and technical funds, be made available for Career and Technical Education and in no case supplant funds.

All Career and Technical Education courses identified in the course descriptions sections of this document are eligible for career and technical funding when offered in approved scope and sequence in a Career Cluster. They are approved according to the guidelines in the [Career and Technical Education Fiscal and Policy Guide](#).

FACILITIES

Success of Career and Technical Education programs is dependent on adequate and well-equipped facilities that stay current with the business, industry, and other employment categories they represent. To assure successful learning, the physical facilities for each program should meet the following requirements:

- Size and space for each program is adequate to accommodate the number of students enrolled.
- Space is arranged for maximum flexibility and ease in teacher supervision of multiple activities.
- Permanent furnishings and equipment are adequate in number and in good operating condition.
- There is adequate provision for maintaining service systems in good working condition (e.g., electricity, water, light control).
- Classrooms, laboratories, auxiliary areas (finish rooms, storage), and other facilities are adequate in design, suitability, and quantity to enable students to meet the specified objectives.

- Each teacher is assigned a conveniently located, furnished, and equipped area for planning, record keeping, consultation, and administration.
- All facilities meet the requirements of the [Environmental Protection Agency](#) and [Occupational Safety & Health Administration](#) .
- Restrooms and dressing rooms are located to provide convenient access to students of either gender.
- Facilities have been modified to accommodate disabled students.
- Adequate provisions exist for the safety and health of students and teachers.

For further information about facilities, refer to the [Career and Technical Education Equipment Guide](#) and to the NCDPI [Facilities Guidelines](#).

EQUIPMENT, MATERIALS, AND SUPPLIES

Students differ widely in interests, abilities, background, learning styles, prerequisite knowledge, and skills. The variations that exist in students make it equally important that a wide range of current and bias-free instructional materials be made available to students.

If students are to get the most out of occupational and practical life skills, they must have the opportunity to practice the tasks involved. This means that an appropriate quantity of consumable supplies must be available to students and teachers for practice and demonstration activities.

Rapid changes in technology require a regular update of tools, equipment, and raw materials. The LEA must respond to modern technological advances by maintaining an on-going schedule for updating all tools, equipment, and materials used by students in laboratory activities.

In general, the LEA should plan to have the following available for each program:

1. Up-to-date equipment and instructional aids in adequate quantity and quality to permit appropriate practice in laboratory instruction.
2. A budget that permits adding, replacing, and updating equipment and materials.

3. A budget that permits consumable supplies (such as food, lumber, ingredients for mortar, etc.) to be made available in sufficient quantities and at appropriate times.
4. Currently adopted textbooks (or their equivalent) and pertinent supplementary books readily available in adequate supply and in usable condition.
5. A variety of bias-free instructional materials that can accommodate a great diversity of student interests.

Also, the LEA should ensure that all tools and equipment are kept repaired and in good working order. Adequate instructional support and resource materials should be available at each teaching station or easily obtained from the media center or other central location.

For further information about specific equipment, refer to the Career and Technical Education Equipment Guide.

CLASS SIZE

Enrollment in each class is to be of a size that ensures effective instruction as prescribed in the individual course descriptions in North Carolina Career and Technical Education Essential Standards.

When "Maximum Enrollment" is indicated, this shows the maximum number of students that are permitted in the course based on legal restrictions, guidelines from regulatory or credentialing agencies, or to provide for the safety of students and teachers.

"Recommended Maximum Enrollment" is based on best educational practices to maintain an appropriate instructional environment. Maximum figures are recommended for each course based on the:

1. Degree to which student safety is involved in the learning process.
2. Desired level of learning outcomes for students in the course.
3. Type of instructional activities involved.
4. Type, quantity, and size of instructional equipment, materials, and supplies.
5. Amount of space needed by students and teachers for instructional purposes.

Factors influencing the number of students for any particular course should take into consideration the availability of laboratories, availability of qualified instructors, adequacy of preparation time, cooperative on-the-job placement, internship arrangements, number of classroom work stations, and class scheduling requirements.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Career and technical student organizations are extremely effective as "instructional tools" when used properly by a trained Career and Technical educator. Career and technical student organization activities are integral to CTE when they meet the following standards:

1. Are instructional strategies used to develop, improve, and expand occupational competencies related to particular Career and Technical Education subject matter and increase the relevance of the instruction.
2. Are an extension of the classroom/laboratory instructional program that enriches and enhances classroom/laboratory learning.
3. Present organized activities for students to gain personal and leadership skills making them more employable, preparing them to become productive citizens, and assisting them in assuming positive roles in the home and community.
4. Demonstrate goals and purposes that parallel the philosophy of Career and Technical Education and the subject matter (or program area) that the organization reinforces, and are compatible to the overall purpose and objectives of Career and Technical Education today.
5. Provide training and realistic learning experiences in an organized educational program that is directly related to the preparation of individuals for employment in careers and preparation for their role as family members.

Integrated career and technical student organization activities make Career and Technical Education teaching more effective by providing valuable experiences in group dynamics that enable students to accept themselves within the total group situation. Career and technical student organization activities can also provide for the development of leadership, development of dignity of all occupations, promotion of standards of excellence, encouragement of broader educational experiences, and encouragement of cooperative efforts. In addition, career and technical student organizations can provide motivation toward the development of technical skills through the use of techniques such as competitive events, recognition events, and awards programs.

When implemented properly, a career and technical student organization can be a positive force for the following:

1. Increase program enrollments.
2. Gain maximum program visibility.
3. Involve employers from business and industry.
4. Secure commitment from important support groups.
5. Motivate Career and Technical Education students and instructors to high levels of personal and group performance.
6. Recognize excellence.
7. Provide the means by which personal and career goals become realities for Career and Technical Education students.

The CTE classroom and curriculum can become energized by providing a career and technical student organization chapter in which students can develop, practice, and refine skills that distinguish them from others in the workforce. The mission of Career and Technical Education and career and technical student organizations is to provide students with the very best preparation available to enhance their job performance and competitiveness in their chosen profession.

WORK-BASED LEARNING

Work-based learning experiences connect school-based learning with the workplace to integrate core and technical instruction. They enhance the overall curriculum, increase learning, promote instructional rigor, and meet the educational needs of all students. Work-based learning experiences include apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Experiences for students may vary in complexity, length of time, and formality. All work-based learning must follow State Board of Education Policies (GCS-I-003 Policy for Academic Credit for Work-based Learning and GCS-M-001 Policy defining "Course for Credit"). Policies and procedures that guide work-based learning can be found at the Work-based Learning website.

Apprenticeship

Apprenticeship is one of the oldest methods of job training. This method is an industry-driven education and career training program based on recognized industry standards. It is a means by which employers address current and projected employment needs. This program is a partnership among business, industry, education, North Carolina Department of Labor (NCDOL), parents and youth apprentices. Some apprenticeship characteristics are:

- Use of a skilled journeyman to help instruct the apprentice.
- Combination of classroom-related instruction with structured work-based learning.
- Employment by an employer who has a direct need for trainees in the occupation.
- Incremental pay scale that increases with skill and knowledge development.
- Training of a highly skilled technician or craft person.
- Appropriate for occupations that do not require a college degree but require a high level of skill and knowledge.
- Registration by the North Carolina Department of Labor, Apprenticeship and Training Bureau. NCDOL provides free assistance to the employer and to the apprentice and certifies both the training program and the newly trained journeyman.

Additional information about apprenticeships can be found at www.ncpublicschools.org/cte/support/work-based/apprenticeship

Cooperative Education

Cooperative education provides on-the-job training for students through a cooperative agreement among the school, the employer, the parents/guardian, and the student. Students receive content instruction related to their on-the-job training experiences. A training plan jointly developed by the teacher-coordinator and employer outlines the sequential classroom instruction and on-the-job training a student receives. Cooperative Education must follow State Board of Education GCS-I-003 Policy for Academic Credit for Work-based Learning and GCS-M-001 Policy defining "Course for Credit."

Cooperative agreements include:

- Provisions for the employment of student workers in conformity with federal, state, and local laws and regulations and in a manner not resulting in exploitation of such student workers for private gain.
- Related occupational instruction in school.
- Payment of the prevailing wage for employment to student workers and awarding school credit for on-the-job training.

In the classroom, students should receive instruction related to their on-the-job training experiences. A training plan jointly developed by the teacher-coordinator and employer outlines the sequential classroom instruction and on-the-job training a student receives. The training plan is the base for evaluating the student's progress on the job and in the classroom. Each cooperative student is coordinated and supervised by a teacher coordinator.

Additional information about Cooperative Education can be found at
www.ncpublicschools.org/cte/support/work-based/cooperative

Internship

Internships allow for additional development of career and technical competencies. Internships are an essential way for today's youth to experience the value of work, develop pride in work, and mature personally. Many communities have opportunities for students to intern in an industry or to work with some community organization addressing a particular problem or need of the business/industry sector.

Internships allow students to observe and participate in daily operations, develop direct contact with job personnel, ask questions about particular careers, and perform certain job tasks. This activity is exploratory and allows the student to get hands-on experience in a number of related activities.

Possibilities are limited only by the imagination of the students, the staff, and the employment community. The teacher, student, and the business community jointly plan the organization, implementation, and evaluation of an internship, regardless of whether it is an unpaid or paid internship.

Internships must follow State Board of Education Policies GCS-I-003 Policy for Academic Credit for Work-based Learning and GCS-M-001 Policy defining "Course for Credit."

Additional information about internships can be found at www.ncpublicschools.org/cte/support/work-based/internship

School-Based Enterprises

A school-based enterprise engages students in providing services or the production of goods for sale through a school-sponsored activity. Individual or sequenced high school courses are set up as actual student-run businesses. Participants learn entrepreneurship, application of skills and knowledge from other courses, and enhance their personal development.

Production work activities are also school-based and are performed by career and technical classes under contract with a second party for remuneration. These activities have always been a vital part of the Career and Technical Education delivery system and are among the most effective instructional methods for developing student competence. The Production Work Handbook contains definitions, rules, regulations, guidelines, and administrative and instructional suggestions that are intended to be of assistance to LEAs planning, implementing, and evaluating, production work activities as part of their educational programs.

Additional information about school-based enterprises can be found at www.ncpublicschools.org/cte/support/work-based/enterprise

Job Shadowing

Job shadowing is an unpaid short-term activity that exposes the student to the workplace. The student is allowed to observe an experienced skilled worker in an actual work setting. Job shadowing heightens student understanding of potential career opportunities and depicts a clear connection between the classroom and the workplace. The duration of this activity could be a half day or longer depending on the needs of the student and work place.

Additional information about job shadowing can be found at www.ncpublicschools.org/cte/support/work-based/job-shadow

Service Learning

Service learning is a work-based learning strategy that combines community service with career and academic learning goals. Students provide volunteer service to public and non-profit agencies, as well as to civic, charitable, religious, and governmental organizations in the local community.

Additional information about service learning can be found at
www.ncpublicschools.org/cte/support/work-based/service-learning

CAREER ACADEMIES

Career academies offer a thematic-based approach that allows students to participate in a sequence of courses to receive specialized training in a particular Career Cluster/pathway. The career academies approach adapts to the realities of a knowledge-based economy that requires complex critical thinking skills and applied learning. The goal for each academy is to implement rigorous coursework, offer relevance of learning, and develop business and industry relationships that enhance student learning. The curriculum is based on a career theme that helps students see relationships and connections between academic subjects and their application in the real world of work in a particular Career Cluster/pathway. Career academies fully integrate academic and technical skills that prepare students for postsecondary education, training, and productive entry into the workforce. Ideally, each career academy establishes relationships with the community, postsecondary institutions, and the workforce to ensure a smooth transition from high school to postsecondary education and into the workforce.

PARTNERSHIPS WITH COMMUNITY AND TECHNICAL COLLEGES

Coordinating secondary and community- and technical-college programs is an important way to assist students in a smooth transition from one level of instruction to another without experiencing delays or loss of credit. Articulation models include time-shortened, advanced skill, and College Tech Prep programs.

Time-Shortened Programs

Time-shortened programs eliminate redundancy in educational experiences. They grant advanced placement to high school students entering a postsecondary program. As a result, students complete an occupational specialty or associate degree more quickly than a normal postsecondary program would allow.

Time-shortened programs include courses taken under the North Carolina High School to Community College Articulation Agreement, [Huskins Cooperative Agreement](#) , [Concurrent Enrollment](#) , and [Learn and Earn Online](#) .

Advanced Skills Programs

Advanced skills programs streamline educational experiences for grades 11-14 in order to incorporate more advanced training than a traditional program would provide. It allows students who have mastered academic or technical skills in high school to bypass some introductory postsecondary courses, thus allowing more time for advanced skills courses.

College Tech Prep

[College Tech Prep](#) (CTP) is a seamless educational strategy that begins in high school and continues through community college resulting in a two-year college certificate, associate degree, baccalaureate degree, or completion of a registered apprenticeship. CTP combines a rigorous academic core of courses with a focused sequence of technical courses in any career pathway within the 16 Career Clusters™. Students who excel in their high school Career and Technical Education (CTE) courses may also receive community college credit when those courses have comparable competencies with college courses.

College Tech Prep consists of a program of study that:

1. Combines a minimum of two years of secondary education and two years of postsecondary education in a nonduplicated, sequential course of study.
2. Integrates academic and career and technical instruction and utilizes work-based learning where appropriate and available.
3. Provides technical preparation in a career field including high-skill, high-wage, high-demand occupations.

4. Builds student competence in technical skills and core academic courses through applied, contextual, and integrated instruction in a coherent sequence of courses.
5. Leads to an industry-recognized credential, two-year postsecondary certification, or an associate or baccalaureate degree in a specific career field.
6. Leads to placement in high-skill or high-wage employment or to further education.
7. Utilizes Career and Technical Education programs of study to the extent practicable.

ONLINE/BLENDED COURSES

North Carolina Virtual Public School

The [North Carolina Virtual Public School](#) (NCVPS) and [Learn and Earn Online](#) continue to provide students with expanded academic options by offering online courses (AP, Honors, World Languages, etc.), online services such as test preparation, career planning services, credit recovery, and online college courses to North Carolina students. Students from all areas of North Carolina now have access to courses and highly qualified teachers in subjects that may not be available at their local school.

All e-learning courses must meet course for credit requirements of the State Board of Education ([GCS-M-001](#)), which designates NCVPS as the approved vendor for online instruction in North Carolina public schools. Use of other vendors must be approved by NCVPS.

LEARN NC

[LEARN NC](#), a program of the University of North Carolina at Chapel Hill [School of Education](#), finds the most innovative and successful practices in K–12 education and makes them available to the teachers and students of North Carolina — and the world. LearnNC offers lesson plans, learning materials, teacher professional development materials, and online courses that teachers can use to create blended classes to best meet the needs of students. LearnNC also provides a forum for teacher support through Moodle PLCs.

HONORS COURSES

To be eligible for honors, courses must meet the requirements of the North Carolina State Board of Education Policy GCS-L-004. Courses must follow guidelines in the 2005 Honors Implementation Guide (CTE pages updated February 2010). Except as specifically noted, a CTE Honors Teaching Preparation Portfolio must be developed prior to a course being offered for honors credit. An Honors Teaching Preparation Portfolio includes detailed information about how the standard course has been increased in rigor to qualify students for honors credit.

CREDIT RECOVERY

Students retaking an entire or partial course for credit must meet requirements of State Board of Education Policy GCS-M-001.

The term "credit recovery" will be used to refer to a block of instruction that is less than the entirety of the Standard Course of Study for that course. Credit recovery, therefore, delivers a subset of the Standard Course of Study or blueprint of the original course in order to specifically address deficiencies in a student's mastery of the course and target specific components of a course necessary for completion. The length of credit recovery courses shall be dictated by the skills and knowledge the student needs to recover and not be a fixed length of seat time. When credit recovery is exercised, the original record of the course being completed and failed will remain on the transcript. Students will be enrolled in the course for which they are attempting to recover credit and will earn a Pass or Fail for their performance in this course.

The term "repeating a course for credit" will be used to refer to a high school course repeated via any delivery method when the entire content of that course is being taught to the student for a second time. Students wishing to improve their GPA should repeat a course for credit, not attempt credit recovery.

DEFINITIONS USED IN THIS DOCUMENT

Career Clusters™ are groupings of occupations used as an organizing tool for curriculum design and instruction. The Career Cluster approach makes it easier for students to understand the relevance of their required courses and helps them select their elective courses more wisely.

Career pathways are sub-groupings of occupations within a Career Cluster used as an organizing tool for curriculum design and instruction. Occupations are grouped into pathways based on the set of common knowledge and skills required for career success.

A foundation course provides fundamental knowledge and skills needed for student success in secondary and postsecondary education and careers in the Career Cluster.

An enhancement course augments related knowledge and skills developed in foundation courses and provides for success in postsecondary education and careers in the Career Cluster.

A completer course is the second or third course in a series that builds upon skills acquired in the previous course(s). A completer course has a prerequisite. Completer courses are identified by an asterisk (*).

A concentrator is a student who has earned four or more technical credits in a Career Cluster, at least one of which is a completer course. The student may earn all four credits from foundation courses or three from foundation and one from enhancement courses for the Career Cluster.

Curriculum partnering opportunities are developed by national organizations, foundations, consortia, industry, and other curriculum providers. Partnering opportunities are approved by the Division of Career and Technical Education. To be approvable, curriculum partnering opportunities must include a valid and reliable measure of technical attainment that meets the state timeline for federal reporting.

Recommended maximum enrollment indicates the recommended maximum number of students who should be enrolled in a course based on best educational practice.

Maximum enrollment indicates the maximum number of students who can be enrolled in a course based on legal and safety requirements.

Work-based learning experiences connect school-based learning with the workplace to integrate core and technical instruction. ***Service learning*** is a work-based learning strategy that combines community service with career and academic learning goals.

Cooperative education provides on-the-job training for students through a cooperative agreement among the school, the employer, the parents/guardian, and the student.

A pilot course is used to test and evaluate student interest and feasibility of a new course before full-scale development and implementation of all course components. During the pilot course year, adjustments will be made to improve or enhance course materials. At some designated point, a decision will be made whether or not to continue or terminate the development of the course.

A field test course is complete with all components. The primary intent of the field test year is to collect reliability data on all assessment items before the items are divided into the classroom and secure assessment banks. A secondary intent of the field test year is to collect feedback from teachers about the blueprint weighting, unpacked content, and instructional activities and resources used in the course.

A credential provides evidence of authority, status, rights, and entitlement to privileges. Typically, a credential is a paper document.

Certification is industry recognition or confirmation of subject knowledge or the ability to perform specific tasks. The focus is on assessing the attainment of current experience, knowledge, and skill base.

A ***License*** is permission from a government authority to perform certain tasks.

More Information

Information about working with Special Populations students in Career and Technical Education appears in Appendix A. Information about Career Development Coordination appears in Appendix B.

A list of acronyms and abbreviations used in Career and Technical Education appears in Appendix C.

The Career and Technical Education Essential Standards are available online at
http://www.ncpublicschools.org/cte

For additional information about North Carolina Career and Technical Education or how to use this document, contact ctecurriculum@dpi.state.nc.us

APPENDIX A

SERVICES TO STUDENTS WITHIN CAREER AND TECHNICAL EDUCATION'S SPECIAL POPULATIONS

Special services are provided for special populations to ensure equal access to recruitment, enrollment, and placement activities. These supplementary services are essential to successful participation of students who are disabled and/or disadvantaged taking Career and Technical Education courses. Coordination with other service providers reduces the number of direct service contacts and duplication of effort. Special Populations Coordinators, as non-instructional personnel, have the major responsibility to ensure this coordination.

Coordination services begin with the identification of each member of Special Populations enrolled in the local Career and Technical Education program. This approach allows the LEA to meet the broad assurances of the law. One such assurance, helping a student to enter a Career and Technical Education program, enhances their chance of selecting an appropriate career pathway. Preparatory services are provided in middle school, or prior to a student's enrollment in a Career and Technical Education program in high school.

DESIRED OUTCOMES

Members of Special Populations should improve in the areas of access, progress, and success in comprehensive Career and Technical Education as a result of the special services and activities provided. Comprehensive Career and Technical Education is comprised of preparatory programs and services, instructional programs and services, and transitional services.

Special Populations Coordinators also serve as a liaison between other services to nurture progress and promote the success of identified students with special needs.

Transition services are provided for students enrolled in Special Education who are 16 years old or older to assist in the transition from secondary to postsecondary education or employment. Transition activities should be based upon the individual student's needs, taking into account community experiences, the development of employment and other post school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation.

STUDENTS SERVED THROUGH SPECIAL POPULATIONS

Some people assume that all members of Special Populations are classified as Exceptional Children (EC). EC students are included, but others are also classified as Special Populations.

Keeping Your "Specials" Consistent

Special Populations is terminology-specific to Career and Technical Education (CTE) and its controlling authority, the Carl D. Perkins Career and Technical Education Improvement Act of 2006. This category of students means, first and foremost, that the students are enrolled in CTE programs (secondary and postsecondary), and belong to one or more of the following groups:

- Individuals with disabilities (these students may also be identified as in need of Special Education, or entitled to Section 504 protections.);

- Individuals from economically-disadvantaged families (family income is at or below the national poverty level), including foster children;

- Individuals preparing for nontraditional training and employment;

- Single parents (19 or under, without a high school diploma, unmarried, or separated), including single pregnant women;

- Displaced homemakers (new primary-breadwinner without a high school diploma);

- Individuals with other barriers to educational achievement, including individuals with limited English proficiency, potential dropouts, and the academically-disadvantaged (included by North Carolina in its definition).

Students eligible for Special Populations are those in possible need of additional support in order to succeed.

Explanation of Classifications for Special Populations

(1) Individuals with disabilities – individuals who have been identified under Section 504 or certified under Individuals with Disabilities Education Improvement Act of 2004 as having:

- Autism, sometimes called Autism Spectrum Disorder.

- Deaf-blindness.

- Deafness.

- Developmental delay.

- Serious emotional disability.

- Hearing impairment.

- Intellectual disability.

- Multiple disabilities.

- Orthopedic impairment.

- Other health impairment.

- Specific Learning Disability.

- Speech or language impairment.

- Traumatic Brain Injury.

- Visual impairment, including blindness.

(2) Individuals from economically disadvantaged families – [considered highly confidential] individuals who are economically disadvantaged, or from an economically disadvantaged family, who qualify for any of the following:

- Aid to Families with Dependent Children.

- Food Stamps.

- Free or reduced-price meals.

- Determined to be low-income according to the latest available data from the Department of Commerce or the Department of Health and Human Services Poverty Guidelines.

- Foster children served by the North Carolina Department of Social Services who have lost their families due to problems such as neglect, abuse, desertion, poverty, divorce, physical and emotional illness, and are placed in foster care.

(3) Individuals preparing for nontraditional training and employment – individuals enrolled in Career and Technical Education program areas that are linked to nontraditional/underrepresented occupations. Nontraditional employment is defined as occupations or fields of work in which one gender comprises less than 25% of those employed in the occupation or field of work.

(4) Single parents, including single pregnant women – unmarried single individuals with children and those expecting a child.

(5) Displaced homemakers – individuals experiencing a change in lifestyle due to unpredictable circumstances. Definition of *displaced homemaker* now removes the requirement that the individual be an adult.

(6) Individuals with other barriers to educational achievement, including individuals with limited English proficiency.

Barriers to educational achievement –

- Academically Disadvantaged – individuals who score at or below the 25th percentile on a standardized achievement or aptitude test, or have secondary school grades below 2.0

on a 4.0 scale (the grade "A" equals 4.0), or below 2.5 (on which the grade "A" is weighted) or fails to attain minimum academic competencies.

- Potential Dropouts – individuals who may be expected to leave school for any reason before graduating or completing a program of study without transferring to another school. Students in this category usually exhibit one or more of these characteristics:

    o Consistent low achievement.

    o High rate of absenteeism.

    o No motivation.

    o Constant discipline problems.

    o Delinquent behavior in school and in the community.

- Individuals with limited English proficiency who:

    o Were not born in the United States, or whose native language is not English.

    o Come from an environment where English is not the dominant language.

    o Are American Indian and Alaska Natives, and come from an environment where another language has significant impact on their level of English language proficiency; and

    o Have sufficient difficulty speaking, reading, writing, or understanding the English language, which denies them the opportunity for successful learning in classrooms where English is the language of instruction, or to participate fully in our society.

ASSESSMENT AND PRESCRIPTION

The assessment and prescription function includes assessment of special needs of Special Populations students and development of the Career Development Plan-Plus.

More information can be found in the *Guide to Career and Technical Education's Special Populations: Challenge Handbook*

SUGGESTIONS FOR WORKING WITH STUDENTS

Information about working with students can be found in the *Guide to Career and Technical Education's Special Populations: Challenge Handbook*

CAREER DEVELOPMENT PLAN AND CAREER DEVELOPMENT PLAN PLUS

Part of meeting the Perkins IV requirements is the development and use of a Career Development Plan for all high school students and an extra (PLUS) section to be used with Special Populations students. This plan must include information about the student, their courses, and their progress toward graduation. The PLUS section includes information about classifications, services, assessments, and modifications for all Special Populations students. Local CTE administration may choose to use another CDP+ as long as all requirements are met. The CDP and CDP+ must be revised and updated as changes are made in state and local graduation requirements.

COORDINATION WITH OTHER PROFESSIONALS

Coordinate with other service provider functions to ensure services to members of Special Populations.

More information can be found in the *Guide to Career and Technical Education's Special Populations: Challenge Handbook*

SPECIAL EDUCATION AND CAREER AND TECHNICAL EDUCATION

Career and Technical Education teachers, Special Populations Coordinators and Special Education teachers should work cooperatively when planning Career and Technical Education services to be provided to students with disabilities. The **Carl D. Perkins Career and Technical Education** Act of 2006 and IDEA 2004 mandate equal access to Career and Technical Education programs and services for students with disabilities.

Development of the IEP:

- Career and technical courses may be considered as part of the student's education plan when developing a high school student's IEP. These courses can provide the student with knowledge and skills to enter the workforce or pursue postsecondary training or education. Appropriate placement for the student is important to ensure the success and satisfaction of the student in the program.

- Weigh these steps in IEP development when considering a Career and Technical Education Course.

    1. What are the student's interests? What are the student's plans after graduation? What are the student's career goals?

    2. What is the student's ability level? Career and Technical Education courses involve both hands-on activities and varying levels of reading, math, and technology. These are found in the course competencies. Consideration should also be given to the student's level of maturity with regard to safety issues. Students are required to pass a safety test before working and using tools in a laboratory. The IEP team should choose the most appropriate program for the student based on interest, ability, and readiness of the student to not only master the safety test but to participate in class without compromising the student's or classmates' safety.

    3. A member of the IEP team (career and technical instructor, school counselor, special education teacher) should be able to adequately describe the course considered for the student.

    4. The IEP team should look at the competencies listed for the course and determine which will be included in the student's IEP once the course is determined.

    5. The IEP team should determine modifications that should be made for the student based on the competencies the student will work toward mastering. Please visit http://www.ncpublicschools.org/ec/ for more complete information about Special Education issues.

Visit http://www.ncpublicschools.org/ec/policy/forms/statewide/ to obtain a complete IEP.

IDENTIFICATION AND PLACEMENT OF STUDENTS WITH LIMITED ENGLISH PROFICIENCY

Public Law 100-297 requires all states to collect and report data on national origin minority students who are of limited English proficiency. Information collected includes:

- The number of limited English proficient students.

- Methods used by LEAs to identify these students.

- Their educational status.

- Types of programs in place to meet the needs of these students.

MODIFICATIONS AND ACCOMMODATIONS

Modifications for a Special Populations student are changes made in order for the student to succeed in the regular classroom setting. They may be changes in the classroom environment, in the curriculum, or in the method of testing.

More information can be found in the *Guide to Career and Technical Education's Special Populations: Challenge Handbook*

Approved Accommodations for students with disabilities must be consistent with instructional practices routinely used during instruction and must be documented on the student's IEP or 504 plan. (This means that a student's accommodation must be followed the whole semester, not just at the end-of-course test time).

APPENDIX B

CAREER DEVELOPMENT COORDINATION

PROGRAM DESCRIPTION

Career Development Coordinators (CDC) support CTE and coordinate career development services for students participating in CTE. The CDC works collaboratively with administrators, student services personnel, and teachers to ensure the delivery of career development services. CDCs facilitate linkages with parents, business/industry, postsecondary institutions, and community organizations to support students' transition to postsecondary education and employment.

The CDC responsibilities incorporate the North Carolina Standard Course of Study, National Career Development Guidelines, the National Model for School Counseling Programs, and the Future-Ready Students For the 21st century. Specific Career Development Coordinator services include:

- Career Development
- Preparatory Services
- Transition Services
- Partnerships
- Professional Development

LINKS
America's Career Resource Network (ACRN)
http://cte.ed.gov/nationalinitiatives/guidanceandcounseling.cfm

Provides information, resources and training on career and education exploration.

The American School Counselor Association (ASCA)
http://www.schoolcounselor.org/

Supports school counselors' efforts to help students focus on academic, personal/social, and career development.

College Foundation of North Carolina

www.cfnc.org

Students can research careers and colleges, plan coursework, create portfolios, and more.

Futures for Kids
www.f4k.org

Students can explore careers that match their unique talents and talk to a career coach. Educators can learn about their students' careers of interest.

National Career Development Association

www.ncda.org

Provides service to professionals involved with career development, including professional development activities, publications, research, public information, professional standards, advocacy, and recognition for achievement and service.

States' Career Clusters™

http://www.careerclusters.org/

A Clearinghouse for Career Clusters™ research, products, services, and technical assistance.

Vocational Information Center

http://www.khake.com/

Resources for vocational educators including: career and technical education, teaching and learning, academics, occupational safety, career related lesson plans, guidance and career and college planning.

NC School Counseling

http://www.ncpublicschools.org/studentsupport/counseling/

Information about NC Student Support Services.

Career Development Coordinator (CDC) Job Description, July 2007

http://www.ncpublicschools.org/docs/cte/career/jobdescription.pdf

APPENDIX C

CAREER AND TECHNICAL EDUCATION ABBREVIATIONS AND ACRONYMS

ABCs	Accountability, Basics, Local Control
ACRE	Accountability and Curriculum Reform Effort
ADM	Average Daily Membership
ARS	Analysis and Reporting System for CTE
AS/400	400 Application Computer System
BFIT	Business Finance and Information Technology
BITE	Business and Information Technology Education
BUD	Budget Utilization and Development
C/UP	College/University Preparation
CDC	Career Development Coordinator
CDP	Career Development Plan
CDP+	Career Development Plan Plus
CET	Computer Engineering Technology
CEU	Continuing Education Unit
CORD	Center for Occupational, Research and Development
CTE	Career and Technical Education
CTP	College Tech Preparation
CTSO	Career and Technical Education Student Organizations
DLC	District Leadership Council
EbD	Engineering by Design
EOC	End of Course
EOG	End of Grade
FACS	Family and Consumer Sciences Education
FALCON	Formative Assessment Learning Community Online Network
H3O	High Skill, High Wage, High Demand Occupations
HSE	Health Science Education
HSTW	High Schools That Work
IC3	Internet and Computer Core Certification
IDEA	Individuals with Disabilities Education Act
IEP	Individual Education Plan
ILT	Initially Licensed Teacher
IMC	Instructional Management Coordinator
IMS	Instructional Management System (Elements)
LEA	Local Education Agency
LPS	Local Planning System
MCT	Microsoft Certified Trainer
ME	Marketing Education
MEE	Marketing and Entrepreneurship Education
MOE	Months of Employment
MSITA	Microsoft IT Academy
NAEP	National Assessment of Education Progress
NAF	National Academy Foundation
NBCT	National Board Certified Teacher
NBPTS	National Board for Professional Teaching Standards
NCCER	National Center for Construction Education and Research
NCCCS	North Carolina Community College System
NCDPI	North Carolina Department of Public Instruction
NCRVE	National Center for Research in Vocational Education

NC WISE	NC Window of Information on Student Education
NET	Networking Engineering Technology
NCPN	National Career Pathways Network
OCS	Occupational Course of Study
OSHA	Occupational Safety and Health Administration
OVAE	Office of Vocational and Adult Education
PALC	Program Area Leadership Council
PRC	Program Report Code
PLTW	Project Lead the Way
RC	Regional Coordinator
RESA	Regional Education Service Alliance
RFP	Request for Proposal
RBT	Revised Bloom's Taxonomy
RttT	Race to the Top
SBE	State Board of Education
SCANS	Secretary's Commission on Achieving Necessary Skills
SCC	Student Certification and Credentialing
SCOS	Standard Course of Study
SDPI	State Department of Public Instruction
SOICC	State Occupational Information Coordinating Committee
SP	Special Populations
SPC	Special Populations Coordinator
SREB	Southern Regional Education Board
STEM	Science, Technology, Engineering and Math
T & I	Trade and Industrial Education
US DOE	United States Department of Education
WBL	Work-based Learning
WLA	Workforce Investment Act

Career and Technical Education Professional Organizations

AAFCS	American Association of Family and Consumer Sciences
ACTE	Association for Career and Technical Education
AWS	American Welding Society
AYES	Automotive Youth Education Services
BEA	Business Education Association
FBLA	Future Business Leaders of America
FCCLA	Family, Career and Community Leaders of America
ITEEA	International Technology and Engineering Education Association
NAEYC	National Association for the Education of Young Children
NCACTEA	North Carolina Association for Career and Technical Education Administrators
NCACTE	North Carolina Association for Career and Technical Education
NCAFCS	North Carolina Association of Family and Consumer Sciences
NCASA	North Carolina Association of School Administrators
NCATA	North Carolina Agriculture Teachers Association
NCBEA	North Carolina Business Education Association
NCHEF	North Carolina Hospitality Education Foundation
NCHOETA	North Carolina Health Occupation Education Teachers Association
NRLA	National Restaurant and Lodging Association
NRLAEF	National Restaurant and Lodging Association Education Foundation

Career and Technical Education Student Organizations

CTSO	Career and Technical Student Organization
DECA	Association for Marketing Education Students
FBLA	Future Business Leaders of America
FFA	CTSO for Agricultural Education
HOSA	Health Occupations Students of America
STAR Events	Students Taking Action with Recognition
TSA	Technology Students Association

Student Certification and Credentialing

A +	CompTIA A+ Essentials and CompTIA A+ Practical Application
ACA	Adobe Certified Associate
ACE	Adobe Certified Expert
AEI	Alternative Energy Integrator Certification
AEI	Alternative Energy Installer Certification
ASE	Automotive Service Excellence Certification
CCENT	Cisco Certified Entry Networking Technician
CCNA	Cisco Certified Network Administrator
CET	Certified Electronic Technician
CIW	Certified Internet Webmaster
CLP	Certified Linux Professional
CNA	Certified Novell Administrator
CNA	Certified Nursing Assistant (Nurse's Assistant)
CNCT	Certified Network Computer Technician
CRC	Career Readiness Certification
CSI	Certified Satellite Installer
CPR/First Aid	Cardiopulmonary Resuscitation and First Aid
IC3	Internet Computing Standard
MCP	Microsoft Certified Professional
MCSA	Microsoft Certified Systems Administrator
MOS	Microsoft Office Specialist
NCCER	National Center for Construction Education and Research certifications
NCCDLTE	North Carolina Child Development Lead Teacher Equivalency
NIMS	National Institute for Metalworking Skills Credentials
Pharm Tech	Pharmacy Technician Certification
ProStart	ProStart National Certificate of Achievement
RHCT	RedHat Certified Technician
ServSafe	ServSafe food safety training
Strata IT	Strata IT Fundamentals Certificate
WorkKeys	CRC job skill assessment system