



**A Pathways Concentration Model for Graduation —
Placing Career Ready on an Equal Footing with College Ready**

**A Proposal by
New York State Association for Career and Technical Education**

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The New York State Association for Career and Technical Education (NYSACTE) is a membership organization representing over 10,000 CTE educators who provide student programs in Family and Consumer Sciences, Technology, Health Sciences, Agriculture, Business & Marketing and Trade & Technical. NYSACTE presents this position paper in support of changes to the New York State graduation requirements and a model that will provide all students with the opportunity to explore career pathways based on enhanced Middle Level Units of Study, 15-unit Early High School Foundation and 7-unit Commencement Concentration Pathways. NYSACTE believes these suggested changes will increase student engagement, involve students more deeply in career and college planning and result in increased numbers of students graduating from high school. Thus, the following proposal is offered for redesign of the high school experience in NYS. The Early High School Foundation and Commencement Concentration Pathways model is informally known as the 15/7 proposal.

Recent discussions by the Board of Regents, members of the Legislature and the business community have focused on the career-ready side of the College and Career Readiness mantra. This conversation has opened up the deeper question about the role of high school in preparation for careers and how to address a number of attendant issues in both school performance and economic development. In 2014, the Board of Regents established five assessment pathways to graduation: Humanities, STEM, CTE, LOTE and Arts. This permits students to substitute a math or science Regents examination, yet-to-be-determined alternative assessments in the Arts and LOTE or one of the approved CTE assessments for a Regents examination.

Establishment of the assessment pathways was an important step forward and introduced career pathways into the conversation concerning completion of high school. While significant, NYSACTE believes that this action is insufficient to fully prepare students to be college and career ready. A program of study is required to assure success in passing a pathway assessment. If there is no change in the required coursework and other experiences provided in high schools, High Schools will continue to offer the same courses and sequences. Without a focus on student engagement and choice, it will be a continuing struggle for all students to reach commencement levels.

Completion of each pathway should require a rigorous sequential program of study to develop academic, technical and career/life competencies and the ability to challenge the assessments successfully. Creating a concept of “pathways” introduces the notion that all students do not need identical learning experiences to demonstrate college and career readiness. Personalization of learning can enhance student and parent engagement with choices that are more relevant to student interests and talents. We must provide students with additional choice in courses and experiences as they pursue high school completion. We need a new and serious redesign of high school to raise student engagement and graduation rates. Taking a broader, more comprehensive view to add personalization to the high school diploma requirements will demonstrate visionary leadership rather than tinkering around the margins of antiquated requirements.

NYSACTE believes that *all students* should complete a base level of similar academic and career coursework that includes experiences with the Humanities, CTE, STEM, the Arts, LOTE, work-based learning and personal and financial management. In addition, all students should be provided with a choice of a pathway concentration and pursue differing coursework and experiences to complete high school consistent with that choice.

The current CTE approved program process can inform this discussion and serve as a model for the development of the other four pathways. The CTE program approval process stimulates thoughtful reflection among multiple subject areas, engages the local community, business and higher education and provides a commitment to accountability without establishing rigid state mandates, which are often inappropriate for some school communities.

What Are Pathways?

NYSACTE’s view of pathways is grounded in its definition of College and Career Readiness and its Vision Statement for student achievements upon graduation¹.

NYSACTE believes that a career pathway is an interconnected sequential set of required and elective courses and work-based learning experiences provided to all students. Secondary school career pathways are supported by career exploration in grades K-6, testing of career interests at the middle level and development of foundational and commencement level academic skills, life/career abilities and technical skills in grades 9-12. A pathway structure would allow students to begin to

Definition of College and Career Readiness

College and Career Readiness is a set of student attributes that are not defined by but enabled through a variety of strongly supported educational programs and structures which include Career and Technical Education. The member organizations of the New York State Association for Career and Technical Education embrace the following vision for *all students* as demonstration that they are College and Career Ready for our 21st Century high innovation economy.

Vision Statement

All students upon graduation from high school will have the academic ability to persist and succeed in postsecondary education including corporate training, the military, apprenticeships, certificate programs and degree bearing program and possess

- Earning power in the form of an industry approved entry level certificate
- Career Ready Practices (National Association of State Directors of CTE Consortium, Common Career Technical Core) embodied in an employability profile
- A defined career pathway plan
- Earned advanced standing and/or dual credit from a postsecondary institution

¹ NYSACTE, 2014

acquire a set of stackable credentials, certificates, diplomas and degrees that can be built upon throughout their work life and career.

From NYSACTE's perspective, career pathways are not a set of courses or experiences designed to prepare students for a specific job, although such courses and programs of study are a tool in assisting students to become college and career ready. Pathways are broad themes in the Humanities, STEM, CTE, Arts and LOTE within which programs of study may be pursued.² This is consistent with the Regents assessment pathways.

Pathways should be framed in the following three ways:

Assumptions

- Pathways are for all students and begin with development of career awareness in K-6.
- Student choice of a pathway, programs of study, courses and other learning experiences to meet graduation requirements is critical to student engagement and success.
- Pathways must have a rigorous academic, technical and life/career abilities core as measured by student success on Regents examinations, approved pathway/technical assessments and locally designed employability measures.
- Pathways provide coherent programs of study.
- Pathways provide the support system necessary for English language learners and students with disabilities to demonstrate college and career readiness.

Implications

- Pathway courses may be provided in a discrete, integrated or specialized manner.
- Pathways provide the opportunity for all students to master the CDOS standards.
- Teachers in each pathway are career sensitive, having visited workplaces.
- The programs of study within pathways are aligned with local, state and national employment trends and needs and with the postsecondary educational opportunities provided by colleges, the military, apprenticeship programs and employers.

Outcomes

- Students leave high school with a diploma, an industry approved entry-level certificate and a Career Plan/Portfolio.
- School and district report cards reflect the participation levels of students in pathways and programs of study, assessment results by program of study, Regents and the Pathway assessments and/or the credential or diplomas awarded:
 - ✓ CDOS credential
 - ✓ Local diploma or local diploma with a pathway endorsement

² Within each pathway, programs of study can be created, for example: CTE-Automotive Technologies, Arts-Art History, STEM-Biomedical Research, Humanities-Psychology, and LOTE-Interpretation. These programs of study provide significant choice for districts in their development.

- ✓ Regents Diploma or Regents Diploma with a pathway endorsement
- ✓ Regents Diploma with advanced designation or with a pathway endorsement

Proposal for a 7-12 Career Pathway Model

There are three key inflection points in a student's secondary school experience: entry into middle school, entrance into grade 9 and grades 11 and 12. NYSACTE recognizes the social, developmental and diverse needs of our students that must be met at each point. The pathway model proposed includes Middle Level Units of Study (7-8), an Early High School Foundation (9-11) and Commencement Concentration Pathways (11-12). There should be an opportunity for acceleration at each level, including acquiring postsecondary dual credits in grades 9-12. A detailing of the units of study and course requirements, which continue the requirement of 22 credits for graduation, follows. NYSACTE's goal is to make the Regents Diploma with advanced designation and a pathway endorsement the gold standard diploma.

Middle Level Units of Study focuses on development of academic skills consistent with state standards, exposure to the arts, languages, careers, practical experiences with tools and technology (through CTE), library and information skills, exposure to places of work, health, physical education and a career/graduation plan. This is a building block phase to prepare students to focus on a career path.

Middle Level (7-8)³ Units of Study College and Career Development for All Students			
Element	Current	Proposed	Comments
ELA	2 Units	Same	Curriculum cross walked to CTE offerings
Mathematics	2 Units	Same	Curriculum cross walked to CTE offerings
Science	2 Units	Same	Curriculum cross walked to CTE offerings
Social Studies	2 Units	Same	Curriculum cross walked to CTE offerings
Technology Education	1 Unit	2 Units of CTE ⁴	One unit of Technology Education including the implications of technology and engineering on the human made world and career choices. Provide career guidance by a school counselor in conjunction with the CTE teacher
Family Consumer Sciences	¾ Unit		One unit of Home and Career Skills inclusive of 10 weeks of exploration of the other five CTE career areas ⁵ and provides career guidance by a school counselor in conjunction with the CTE teacher
Physical Education	Every other day	Same	Include ergonomics of work
Arts			
• Music	½ Unit	Same	Include exploration of music careers
• Visual Arts	½ Unit	Same	Include exploration of visual art careers
Health Education	½ Unit	Same	Include information on workplace safety and health careers
LOTE	As per 100.2(d)	Same	Include exploration of career opportunities for bilingual speakers
Library and Information Skills	1 period per week	Embed in ELA	Include career search technologies
Career Path/ Graduation Plan	Required	Required	Amended at the conclusion of grades 7 & 8
Visitations to community workplaces or other related work-based learning	NA	Required	Under guidance of CTE teacher or school counselor with journaling of the visit(s) or experiences

³ Current regulations permit school districts to meet the instructional requirements for Technology Education and Family and Consumer Sciences in grades 5-8. This flexibility would remain based upon middle level grade configurations and district preferences.

⁴ Co-planned and/or co-taught with CTE and core academic teachers

⁵ The exposure should be broad; based on local resources, employment needs and community interests; and include a student project or product and participation in a team project.

Early High School Foundation places emphasis on the academic skills needed to prepare for and meet college readiness levels on Regents examinations; continued exploration and development of skills in the Humanities, Arts, STEM, LOTE, and CTE, career and financial management, health and physical education; continued exposure to places of work; and review and revision of the career path/graduation plan. (15 credits)

Early High School Foundation College and Career Readiness for All Students (15 Credits)				
Element	Current	Proposed	Assessment	Comments
ELA	3 Credits	Same	ELA Regents	Passing ELA Regents examination
Mathematics	2 Credits	Same	As required to meet 4+1	The option for an integrated or specialized course or a course based in engineering concepts
Science	2 Credits	Same	As required to meet 4+1	The option for an integrated or specialized course or a course based in engineering concepts
Social Studies	2 Credits	Same	As required to meet 4+1	The option for an integrated or specialized course
CTE	0 Credit	1 Credit	Local Assessment	Introductory course as part of a coherent sequence in a CTE program of study or to provide a series of exploratory units which may lead to a CTE program of study and development of CDOS Foundation skills.
Arts	1 Credit	1 Credit	Local Assessment	Introductory course as part of a coherent sequence in an Arts program of study or an exploratory course which may lead to an Arts course of study
LOTE	1 Credit	1 Credit	Local Assessment	Introductory course as part of a coherent sequence in a LOTE program of study or exploratory course (multiple languages and cultures) which may lead to a LOTE course of study
Physical Education	2 Credits	2 Credits	Local Assessment	Inclusive of ergonomics of work
Health	½ Credit	½ Credit	Local Assessment	Inclusive of mental and physical health related to work and health careers
Career & Financial Management (CFM)	0	½ Credit	Local Assessment	To be taught by a CTE professional with a documented and/or tested skill set
Career Path/ Graduation Plan	required	Required		Amended at the conclusion of grades 9 and 10
Visitations to workplaces or other related work-based learning		Required		Under guidance of a work Based Learning Coordinator, CTE teacher or school counselor, with journaling of the visit(s) or experiences

Commencement Concentration Pathways focuses on the academic, technical and career/life skills necessary to pursue a career interest, providing choice in meeting core requirements and pathway-related coursework to form a concentration, opportunity to participate in advanced studies and earn advanced standing and/or dual credit, participation in work-based learning related to the pathway concentration, access to a pathway assessment and development of an employability profile and a postsecondary career plan. (7 credits)

Commencement Concentration Pathways⁶					
College and Career Readiness for All Students (7 Credits)					
Element	Humanities	CTE⁷	STEM	Arts	LOTE
Social Studies: discrete, integrated or specialized	2			1	1
ELA: discrete, integrated or specialized	1		1	1	1
Science: discrete, integrated or specialized	1	1		1	1
Math: discrete, integrated or specialized	1	1		1	1
Technical Writing, Speaking and Listening	Option for 4 th ELA	1	Option for 4 th ELA	Option for 4 th ELA	Option for 4 th ELA
Regents/AP/IB or College Level Math			2		
Regents/AP/IB or College Level Science			2		
Concentration: At least one career or college ready course: AP, IB, CTE or college level	2	4	2	3	3
Work-Based Learning: Integrated into the concentration or stand alone; visitations, presentations, shadowing, internship or paid work in a workplace germane to the pathway	Required	Required	Required	Required	Required
Employability Profile: inclusive of academic and technical skills and life/career abilities	Required	Required	Required	Required	Required
Graduation, Postsecondary and Career Plan: At 11 th and 12 th with a career portfolio	Required	Required	Required	Required	Required
Pathway Assessment: All students completing a program of study within a pathway will have access to the pathway assessment and challenge it	Required	Required	Required	Required	Required

⁶ Districts must offer a minimum of two pathways inclusive of CTE.

⁷ CTE and STEM pathways require a minimum of one course in or an integrated course inclusive of engineering principles, which may be met by including this course in the Early High School Foundation.

Commencement Concentration Pathways — Required Examinations College and Career Readiness for All Students					
Element	Humanities	CTE	STEM	Arts	LOTE
Required Commencement Level Regents Examination ^{8,9}	ELA, 2 Social Studies and a Math and Science Regents Examination or ELA and one each of Social Studies, Math and Science and an additional Math or Science or Approved CTE examination	ELA, 2 Social Studies and a Math and Science Regents Examination or ELA and one each of Social Studies, Math and Science and an additional Math or Science or Approved CTE examination	ELA, 2 Social Studies and a Math and Science Regents Examination or ELA and one each of Social Studies, Math and Science and an additional Math or Science or Approved CTE examination	ELA, 2 Social Studies and a Math and Science Regents Examination or ELA and one each of Social Studies, Math and Science and an additional Math or Science or Approved CTE or Arts examination	ELA, 2 Social Studies and a Math and Science Regents Examination or ELA and one each of Social Studies, Math and Science and an additional Math or Science or Approved CTE or LOTE examination

Reject the CDOS Pathway Proposal

In January 2016, the Board of Regents discussed the addition of a 6th CDOS pathway for all students founded on the CDOS credential. NYSACTE strongly recommends that the Board of Regents remain firm with the five assessment pathways. The pathway structure and components of the model proposed here provide components of the CDOS credential and more. The CDOS credential requires 216 hours of CTE coursework and/or work-based learning experiences, which is equivalent to two courses rather than a coherent sequential program of study leading to a credential. The NYSACTE model includes an elective pathway of coursework, workplace visitations/experiences, an opportunity for achievement of CDOS learning standards, a career path and an employability profile. These would address the CDOS content for all students and provide more workplace experiences and career content than currently required in the CDOS credential. Using a commencement level concentration of pathway courses, inclusive of CTE, will provide students with choice, raise learner engagement and reinforce the five currently approved assessment pathways.

⁸ This is the minimum required for a Regents Diploma. Districts must offer the opportunity to earn a Regents Diploma with advanced designation by providing instruction directly, through BOCES, in cooperation with another school/district, online or through other methods allowed by Commissioners Regulations and the.

⁹ Technical endorsement may be earned by passing an approved pathway assessment in CTE, STEM or Arts or a pathway endorsement in the Arts, Humanities or LOTE upon completion of a coherent sequence of courses that forms a program of study.

Recommendations to Place Career Ready on an Equal Footing with College Ready

1. Define *College and Career ready*.
2. Adopt the NYSACTE Middle Level Units of Study and the Early High School Foundation and Commencement Concentration Pathways (15/7) model for graduation.
3. Reject the proposal to create a 6th CDOS pathway.
4. Affirm the integration of academic and career content throughout the state Learning Standards, CDOS, MST and alternative assessments to encourage the use of the integrated credit options available under current regulations.
5. Improve math and science achievement by supporting the expanded use of integrated and specialized courses focused on real-world problems.
6. Enforce/enact policies that assist all students to develop knowledge of career options and to have a career plan with flexible career goals.
7. Continue to pursue changes in the assessment system which will require students to apply concepts and understandings to real-world problems.
8. Negotiate universal articulation and dual credit agreements with SUNY and CUNY.
9. Adjust teacher certification standards to reflect a move to integrated instructional practices and emerging technologies and careers.
10. Work aggressively to secure business support for high quality pathways for all students.
11. Include data on participation in pathways, success on pathway assessments and numbers of students earning industry-based credentials, high school credentials, diplomas and diplomas with endorsements on the school report cards.
12. Continue to be a strong advocate for additional funding for CTE programs of study.