



**TO:** P-12 Education Committee  
College and Career Readiness Working Group

**FROM:** John B. King, Jr.

**SUBJECT:** Earning additional course credit through integrated Career and Technical Education (CTE) courses

**DATE:** April 22, 2011

**AUTHORIZATION(S):**

### **SUMMARY**

#### **Issue for Discussion**

Should additional integrated CTE courses be considered for academic credit beyond what is currently allowed in §100.5(d)(6) of the Commissioner's regulations?

#### **Reason(s) for Consideration**

Review of Policy.

#### **Proposed Handling**

This question will come before the P-12 Education Committee and the College and Career Readiness Working Group for discussion at the May 2011 meeting.

#### **Background Information**

An integrated course is one that delivers academic content within a CTE context. Students are able to fulfill core academic graduation and CTE program sequence requirements through integrated and/or applied courses which include academic content. Examples include technical reading and report writing, as part of an Automotive Technology course; applied mathematics as part of an Electricity/Electronics course; business economics as part of a Business Marketing course; and applied physics as part of an Aviation Flight Dynamics course. These courses are jointly planned and/or delivered by academic and/or career and technical education teachers. Programs which use this approach create curriculum maps to document how the content of the integrated courses meets the Regents academic core requirements. While there are benefits and challenges to expanding this option to include additional academic credits, an implementation plan is essential.

In 2001, the Regents approved a CTE policy which promulgated a program approval process that permitted up to four academic credits (English, science, mathematics, and economics/government) to be earned by students through integrated CTE courses in approved CTE programs. This option allowed students to pursue a career and technical education in courses that also offered academic skills and content. In general, this policy increased flexibility in both coursework and overall program for both students and schools.

### Proposal for Consideration

A commonly used CTE program structure in LEAs provides a middle-level experience (Home and Careers Skills and Introduction to Technology) and a high school program in the higher grades (11-12) utilizing high school and/or BOCES CTE programs. By providing integrated options at 9<sup>th</sup> and 10<sup>th</sup> grade, students who wish to pursue a CTE pathway may do so and students who may be otherwise at-risk for failure or drop out during these critical years can be reengaged with school in a meaningful way<sup>1</sup>. To accomplish this, specific career pathways currently available at 11-12 grade in approved CTE programs could be expanded downward to reflect specific academic and technical skill sets necessary to provide the foundational content knowledge needed for success in career or college. Specific courses could be developed to reinforce STEM concepts critical for higher level academic achievement. The chart below illustrates current requirements and a proposed integration approach:

<b>Current Course Requirements</b>	<b>Required credits</b>	<b>Credits currently available through CTE Integration<sup>2</sup></b>	<b>Credits available under proposed CTE Integration<sup>3</sup></b>
English	4	1	4
Social Studies	4	1	4
Mathematics	3	1	3
Science	3	1	3
Physical Education (PE)	2	N/A	N/A
Art / Music <sup>4</sup>	1	N/A (see footnote 3)	N/A (see footnote 3)
Health	0.5	N/A	N/A
LOTE	1	N/A	N/A
Units of Credit	18.5	-	-
Additional Units of Credit:(Sequence / Electives)	3.5	Student may meet elective requirements through CTE courses	Students may meet elective requirements through CTE courses
Total Units of Credit	22	-	-

<sup>1</sup> New York Times, June 21, 2006 article on “Diplomas Count: An Essential Guide to Graduation Rates and Policies”, Education Week Research Center

<sup>2</sup> In an approved CTE program pursuant to §100.5(d)(6) of the Commissioner’s regulations.

<sup>3</sup> Curriculum maps would document how, through a fully integrated program, students will fulfill the core requirements in English, Science, Mathematics and Economics and Government

<sup>4</sup> This requirement may be met through a CTE Design, Drawing and Production class or through a sequence in Family and Consumer Science (e.g. Clothing and Textile Core)

## Implementation Timeline and Challenges

Although a multi-year phase-in approach is recommended, an early implementation plan is possible. In the 2011-12 school year, for example, districts could begin to identify existing CTE courses at the high school level that have the potential for integrated academic enhancement. Further, while not all districts would be able to offer this option initially, many could begin phasing in the number of integrated ELA, math, science, and social studies credits allowed. Other issues for consideration are:

- For those districts where a CTE gap is present, courses would need to be developed.
- A restructuring of middle school programs is essential to the success of an overall strategy to integrate academics and technical studies.
- A thoughtful approach that addresses current programs and teachers is essential to providing students with a meaningful CTE experience while bolstering academic achievement.
- A review of the need for professional development, effective teacher preparation and current certification structures is necessary.

## Next Steps

Should the Regents wish to pursue this strategy, staff will further develop the implementation plan with models that reflect the diversity of New York State. Plans that operationalize the strategy would need to be developed for urban, suburban and rural applications which reflect varying resource capacity.