

Department of Legislative Services
 Maryland General Assembly
 2014 Session

FISCAL AND POLICY NOTE

House Bill 1418 (Delegate Glass)
 Ways and Means

Education - Curriculum Content - Vocational Education and Training Programs

This bill requires the State Board of Education to develop curriculum content for an *elective* semester-long course in the requirements for entry into vocational education and training programs to be taught beginning with the 2015-2016 school year. Each local board of education must determine which high schools in the county or Baltimore City may offer the curriculum content developed by the State board beginning with the 2015-2016 school year.

The bill takes effect July 1, 2014.

Fiscal Summary

State Effect: General fund expenditures increase by approximately \$80,000 in FY 2015 for the Maryland State Department of Education (MSDE) to hire consultants to prepare curriculum, teacher tool kits, and online courses.

(in dollars)	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	80,000	0	0	0	0
Net Effect	(\$80,000)	\$0	\$0	\$0	\$0

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

Local Effect: If a local school system decides to offer the elective semester-long course on the requirements for entry into vocational education and training programs, its expenditures may increase or resources may be shifted from other activities.

Small Business Effect: None.

Analysis

Current Law: Career and technology programs in the public schools must (1) offer a sequence of academic and occupational courses, career development, and work experience to prepare students to begin careers and to pursue lifelong learning and (2) integrate academic knowledge and occupational competence to enable students to develop the critical thinking, problem solving, employability, and technical skills required to meet the workforce preparation and economic development needs of the twenty-first century.

The State Board of Education must coordinate the overall growth and development of elementary and secondary education in the State. In consultation with the State Superintendent of Schools, the State board must develop and periodically update an overall plan consistent with the bylaws that must identify, among other things, the status and needs of the career and technology education program, the vocational rehabilitation program, and the library system of these programs.

According to the Maryland Code of Regulations, each local school system must (1) provide in the public schools a systematic instructional program in career development and decisionmaking in accordance with the Maryland Career Clusters (2nd Edition November 2007) and Maryland Career Development Framework (MCDF) Grades Pre-K through Postsecondary/Adult (February 13, 2008), which are incorporated by reference for all students in grades prekindergarten through grade 12; and (2) ensure that before grade 9 each student develops an individual academic and career plan and updates it in subsequent years.

The comprehensive instructional program must provide for diversity of student need, abilities, and interest at the early, middle, and high school learning years, and must include the specified career development content standards.

Students must (1) acquire and apply self-knowledge in order to develop personal, learning, and career goals; (2) use the Maryland Career Clusters and pathways in order to understand their relationship to educational achievement and life-long learning; (3) assess career cluster choices and related pathways in order to understand their relationship to educational achievement and life-long learning; (4) use the Maryland Career Clusters and pathways in order to understand their relationship to educational achievement and life-long learning; (5) assess career cluster choices and related pathways in order to develop an academic and career plan; (6) prepare for postsecondary and career success through a sequenced academic and technical program of study and related workplace experiences; (7) demonstrate skills to secure, maintain, and advance in employment; and (8) demonstrate how the ongoing attainment of knowledge and skills enhances one's ability to function and transition effectively in a diverse and changing economy.

The State Board of Education must establish high school curriculum and graduation requirements for all public schools in accordance with current law.

Background: MCDF, developed by MSDE, provides a structured, developmental approach for teaching students and adults about the world of work along with encouraging the development of positive personal characteristics and self efficacy skills needed for making appropriate choices regarding their education and career paths. For educators, the MCDF is a guide for appropriate instruction at the elementary and middle school level to help prepare students to begin to explore postsecondary and career-based options through career-awareness activities – for example, field trips, job shadowing, interest inventories – and then create their *academic and career plan* for high school, mapping out their academic coursework and career options. Then in high school, Maryland students have many options to choose from in planning coursework to complete graduation requirements including the Maryland Career Technology Education (CTE) Programs of Study.

Maryland CTE programs of study are statewide model programs designed to prepare high school students for the twenty-first century's global economy and its rapidly changing workforce needs. All CTE programs are aligned to established academic and technical skill standards to ensure student preparation for college and careers. These programs also include work-based learning opportunities (*e.g.*, internships, clinical experiences, or industry-mentored projects) tied to the student's area of interest. Upon completion of a Maryland CTE program of study, students also have the option to earn college credits and/or industry-recognized credentials such as certifications and licenses.

An example of a high school program of study for a student electing to complete a CTE program is shown in **Exhibit 1**. A student who elects to complete a CTE program will typically take four credits of CTE in addition to the required high school graduation requirements: one credit (a full-year) in grade 10; one credit in grade 11; and two credits (two full-year courses) in grade 12. A student completing the CTE program may also choose to take two credits of advanced technology education.

Given that CTE programs are closely aligned with regional economic and workforce development priorities, not all high schools have programs in all career clusters, which are groupings of interrelated occupations. Based on local needs and opportunities, each school system decides which clusters and corresponding CTE programs to offer.

Exhibit 1
Sample Career Technology Education High School Program of Study

<u>Requirements</u> (<i>Subject-number of credits</i>)	<u>Grade 9</u>	<u>Grade 10</u>	<u>Grade 11</u>	<u>Grade 12</u>
English – 4	English 9	English 10	English 11 or AP Language	English 12 or AP Literature
Social Studies – 3	US Government	World History or AP European History	US History or AP US History	Government or AP Government
Mathematics – 3	Algebra I	Geometry	Algebra II	Trigonometry or Pre-Calculus or Calculus or AP Calculus
Science – 3	Earth or Physical Science	Biology or AP Biology	Chemistry or AP Chemistry	Physics or AP Physics
Physical Education – .5 Health Ed – .5	.5 PE	.5 Health		
Fine Arts – 1	.5 Fine Arts	.5 Fine Arts		
Technology Education – 1	Foundations of Technology			
CTE Completer Program – 4		CTE Course (1)	CTE Course (1)	CTE Course (2)
Foreign Language – 2 and/or Advanced Tech Ed – 2	Foreign Language	Foreign Language	Foreign Language or Adv. Tech	Foreign Language or Adv. Tech

CTE = Career Technology Education
AP = Advanced Placement

Note: Students electing to complete a CTE program as part of the high school program are prepared for entry into college and career pathway. Students intending to enroll in college are recommended to complete AP courses.

Source: Maryland State Department of Education

Maryland's career clusters are:

- Arts, Media, and Communication;
- Business, Management, and Finance;
- Consumer Services, Hospitality, and Tourism;
- Construction and Development;
- Environmental, Agricultural, and Natural Resource Systems;
- Health and Biosciences;
- Human Resource Services;
- Information Technology;
- Manufacturing, Engineering, and Technology; and
- Transportation Technologies.

The various high school CTE programs available in the State within the various Maryland Career Clusters are shown in **Exhibit 2**. As mentioned above, not all CTE programs are available at all high schools.

Students may learn more about career opportunities for Maryland graduates at www.BeWhatIWantoBe.com

MSDE advises that according to Maryland's State Plan for Career and Technology Education that was approved by the U.S. Department of Education, an elective semester-long course on the requirements for entry into vocational education and training programs would not be eligible for federal funds that support CTE programs.

Exhibit 2
High School Career Technology Education (CTE) Programs within
Maryland's Career Clusters

<p><u>Arts, Media and Communication</u></p> <ul style="list-style-type: none"> • Communication and Broadcast Technology • Graphic Communications (PrintED) • Interactive Media Production 	<p><u>Health and Biosciences</u></p> <ul style="list-style-type: none"> • Academy of Health Professionals (Certified Nursing Assistant/Geriatric Nursing Assistant; Pharmacy Tech; Dental Assistant) • Biomedical Sciences: Project Lead the Way
<p><u>Business, Management, and Finance</u></p> <ul style="list-style-type: none"> • Academy of Finance • Finance and Accounting • Marketing • Business Administrative Services • Business Management 	<p><u>Human Resource Services</u></p> <ul style="list-style-type: none"> • Fire Science: Maryland Fire and Rescue Institute • Homeland Security and Emergency Preparedness (Homeland Security Sciences; Criminal Justice and Law Enforcement; Information and Communications Technology) • Legal Support Services • Childcare and Early Childhood Education • Teacher Academy of Maryland
<p><u>Consumer Services, Hospitality, and Tourism</u></p> <ul style="list-style-type: none"> • Culinary Arts (Culinary Arts Program and Baking/Pastry Program) • Food and Beverage Management • Lodging Management Program • Academy of Hospitality and Tourism • Careers in Cosmetology 	<p><u>Information Technology</u></p> <ul style="list-style-type: none"> • Academy of Information Technology (IT Programming; IT Networking; Web Design) • Database Academy (Oracle) • IT Networking Academy (CISCO)
<p><u>Construction and Development</u></p> <ul style="list-style-type: none"> • Construction Design and Management • Construction Trades Professions (Carpentry, Electrical, Plumbing, Masonry) • Construction Maintenance (Heating, Ventilating, Air Conditioning (HVAC); Industrial Maintenance; Welding) 	<p><u>Manufacturing, Engineering, and Technology</u></p> <ul style="list-style-type: none"> • Pre-Engineering: Project Lead the Way (Computer Integrated Manufacturing; Civil Engineering; Biotechnical Engineering; Aerospace Engineering) • Manufacturing Engineering Technologies
<p><u>Environmental, Agricultural, and Natural Resource Systems</u></p> <ul style="list-style-type: none"> • Curriculum for Agriculture Science • Horticultural Services; Professional Horticulturalist • Environmental Studies/Natural Resources 	<p><u>Transportation Technologies</u></p> <ul style="list-style-type: none"> • Automotive Technician (NATEF) • Autobody/Collision Repair Technician (NATEF) • Medium-Heavy Truck Technician (NATEF)

Source: Maryland State Department of Education

State Expenditures: General fund expenditures increase by approximately \$80,000 in fiscal 2015 for MSDE to hire consultants to prepare curriculum, teacher tool kits, and

online courses. In addition, there may be expenses associated with MSDE supporting local school systems in implementing the curriculum; however, these expenses will only be realized if a local school system decides to implement the curriculum. It is unknown how many, if any, school systems would implement the course given the other courses students participating in CTE are already taking.

Local Expenditures: If a local school system decides to offer the elective semester-long course on the requirements for entry into vocational education and training programs, its expenditures may increase or resources may be shifted from other activities. It is unknown if any local school systems would decide to implement the curriculum. If a school system chooses to implement the program then, it may need to hire teachers qualified to teach the course, and purchase software, textbooks, or other course related materials. MSDE advises that federal funds that support CTE programs cannot be used to support this course.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland State Department of Education, Department of Legislative Services

Fiscal Note History: First Reader - March 11, 2014
ncs/rhh

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