

ESSA - Statute

- For all public schools in the State, ..., annually measure, for all students and separately for each subgroup of student, the following indicators...:
 - For all public schools in the State, based on long term goals..., academic achievement,...
 - Proficiency on annual assessments...
 - At the State's discretion, for each public high school in the State, student growth, as measured by such annual assessment.



Statute - continued

- For public elementary schools and secondary schools that are not high schools,
 - A measure of student growth,...
 - Another valid and reliable statewide academic indicator...
- For public high schools,
 - Adjusted cohort graduation rate,...

Statute - continued

- English Language Proficiency...
- Not less than one indicator of school quality or student success...
 - May include measures of
 - student engagement;
 - Educator engagement;
 - Student access to and completion of advanced coursework;
 - Post secondary readiness
 - School climate and safety, and
 - Any other indicator the State chooses that meets the requirements of this clause.

Elementary/Middle

Indicator	Rank for	Weight –	Weight –
	Option #1	Option #1	Option #2
Academic Achievement	3	25	30
Academic Progress	1	35	30
EL Proficiency	4	10	10
School Quality/Student Success	2	30	30



High School

Indicator	Weight (1)	Weight (2)	Weight (3)
Academic Achievement	20	25	25 (Include SQSS Academic Outcome)
College and Career Preparedness	35	35	
Graduation Rate	15	10/15	35
English Language Proficiency	10	10	10
School Quality/Student Success	20	20/15	30

State Examples

State	Summative ?	Levels	Growth	Long Term Goals	SQSS
Colorado	Percentile Ranking Distribution with cuts at 15 th , 50 th , and 85 th percentiles- points for each measure aggregated to a total score	3 categories (CSI, TSI, and Neither)	Median SGP	6 years to get to 53 rd percentile	E/MS: Chronic Absenteeism HS: Dropout Rates Under Consideration: Student, Parent, Educator Satisfaction; Post Secondary/ Workforce Readiness; and Social-Emotional Learning
Delaware	1-5 stars for each indicator, assigned a numeric value to aggregate an overall score	3 categories (CSI, TSI, and Other)	School level aggregate growth (exploring growth to target model)	Cut in 1/2 by 2030	Chronic Absenteeism; suspension/expulsion; reduction of suspension/expulsion; student/teacher/parent survey; Educator/school administration retention; social-emotional learning; class size; specialist to student ratio; Equitable access to effective teachers; well-rounded curriculum; college and career prep; and postsecondary outcomes

State Examples

State	Summative ?	Levels	Growth	Long Term Goals	SQSS
Illinois	Indicator mapped on 100 point scale and then aggregated	5 levels: Mastering; Mentoring; Meeting; Leading; Learning	Linear Regression of current test scores to last year's scores	90% proficiency by 2032	ALL: Climate Survey HS: On track in grade 9 College and Career Ready

State Examples

State	Summative ?	Levels	Growth	Long Term Goals	SQSS
Louisiana	A-F Ratings	Not Determined	Working on Methodology- will be individual student growth value added model	1- Statewide HS grad rate of 90% by 2025; 2- Average ACT score of 21 by 2025; and 3- Postsecondary Readiness (not determined)	Exploring an "Interest and Opportunities" Indicator- E/MS exposure to high quality arts and foreign language experiences HS- expanded access to advanced courses in applied and academic fields
Massachusetts	Aggregates indicators into overall school performance percentiles	6 Tiers based on percentile	SGP and exploring Growth to Standard Model	Not Yet Determined due to new assessment	All: Chronic Absenteeism, Access to Arts, and School Climate HS also has; Grade 9 course passing; Breadth of Curriculum, and Student Access to Advanced Coursework



State Examples

State	Summative ?	Levels	Growth	Long Term Goals	SQSS
Ohio	A-F	5 Categories	EVASS (value-added) for all students and graded measures for SWD, GT, and lowest 20% of Math and ELA	Cut in 1/2 by 2025-2026 for student groups; All students to 80% by 2025-2026	Chronic Absenteeism; Prepared for Success (remediation free, honors diploma, or industry recognized credential), gap closing, and K-3 Literacy improvement

State Examples

State	Summative ?	Levels	Growth	Long Term Goals	SQSS
Tennessee	A-F	4 levels: In Need of Improvement; Progressing, Achieving, and Exemplary	TN Value Added Assessment System (TVASS)- student level growth measure across the achievement continuum	<ul style="list-style-type: none"> 1- TN will rank in top 1/2 of nation on NAEP by 2019; 2-75% of TN 3rd graders will be proficient in reading by 2025; 3- Average ACT Score will be 21 by 2020; and 4- Majority of HS graduates from class of 2020 will earn a postsecondary certificate, diploma, or degree. 	All: Opportunity to Learn (Chronic Absenteeism) HS- Ready Graduate (ACT score of 21 or higher or completed 4 or more Early Post –Secondary Opportunities (EPSO), or completed 2 EPSOs and industry certification





Further Discussion



Enrollment in State CTE Programs of Study - School Year 2015-2016

	Enrollment (9-12)	Concentrator (Advanced)
Academy of Finance (NAF)	1,494	400
Academy of Health Professions (APH)	3,336	1,093
Academy of Hospitality and Tourism (NAF)	58	5
Accounting and Finance	1,750	606
Autobody/Collision Repair Technician (NATEF)	217	95
Automotive Technician (NATEF)	1,221	518
Business Administrative Services	2,774	969
Business Management	8,699	1,060
Career Research & Development	7,523	2,670
Careers in Cosmetology	1,472	603
Computer Science	2,566	227
Construction Design and Management	396	31
Construction Maintenance - HVAC	328	155
Construction Maintenance - Welding	195	86
Construction Trades - Carpentry	1,179	393
Construction Trades - Electrical	617	214
Construction Trades - Masonry	192	69
Construction Trades - Plumbing	183	81
Culinary Arts (ACF)	986	307
Curriculum for Agricultural Science Education (CASE)	1,440	287
Database Academy (Oracle)	179	28
Environmental Studies/ Natural Resources	202	0
Fire Science: Maryland Fire and Rescue Institute (MFRI)	265	98
Food and Beverage Management (ProStart)	4,094	650
Graphic Communications (PrintED)	1,015	273
Homeland Security and Emergency Preparedness- HS Sciences	1,652	278
Horticultural Services: Certified Professional Horticulturist (CPH)	169	39
Interactive Media Production	2,214	495
IT Networking Academy (CISCO)	1,945	553
Lodging Management	105	42
Manufacturing Engineering Technologies	151	46
Business Marketing	1,479	557
Medium-Heavy Truck Technician (NATEF)	170	81
NAF Academy of Information Technology	703	211
Project Lead The Way- Pre-Engineering (PLTW)	11,399	2,325
Project Lead The Way: Biomedical Sciences	3,804	904
Teacher Academy of Maryland (TAM)	1,736	332
State Programs of Study	67,908	16,781
	% in State Programs of Study	69.4%
		69.8%
Grand Total - All CTE programs	97,858	24,035

For more information, please visit:
www.mdctedata.org



Overview of College and Career Readiness: A Partnership with Local School Systems and their Community Colleges

The College and Career Readiness and College Completion Act of 2013 (CCR-CCA) requires Maryland to prepare all students for college and careers upon graduation from high school. The goal in the law states that "at least 55% of Maryland's adults aged 25 to 64 years will hold at least an associate's degree by 2025." For local school systems, this goal can best be achieved by building on the close relationships already established between the school systems and the local community colleges (see Attachment 1 - Memorandum of Understanding Between Maryland Association of Community Colleges and Public School Superintendents Association of Maryland, page 47).

Community colleges play a critical role in Maryland education as the "next step" for large numbers of high school graduates as:

- the avenue for specific career credentialing through robust AA degrees,
- an affordable start for credit-transfer to a four-year college and a bachelor's degree,
- a point of return for those seeking career changes and/or advancement,
- a source of enrichment and interest-based learning in a culture of life-long learning.

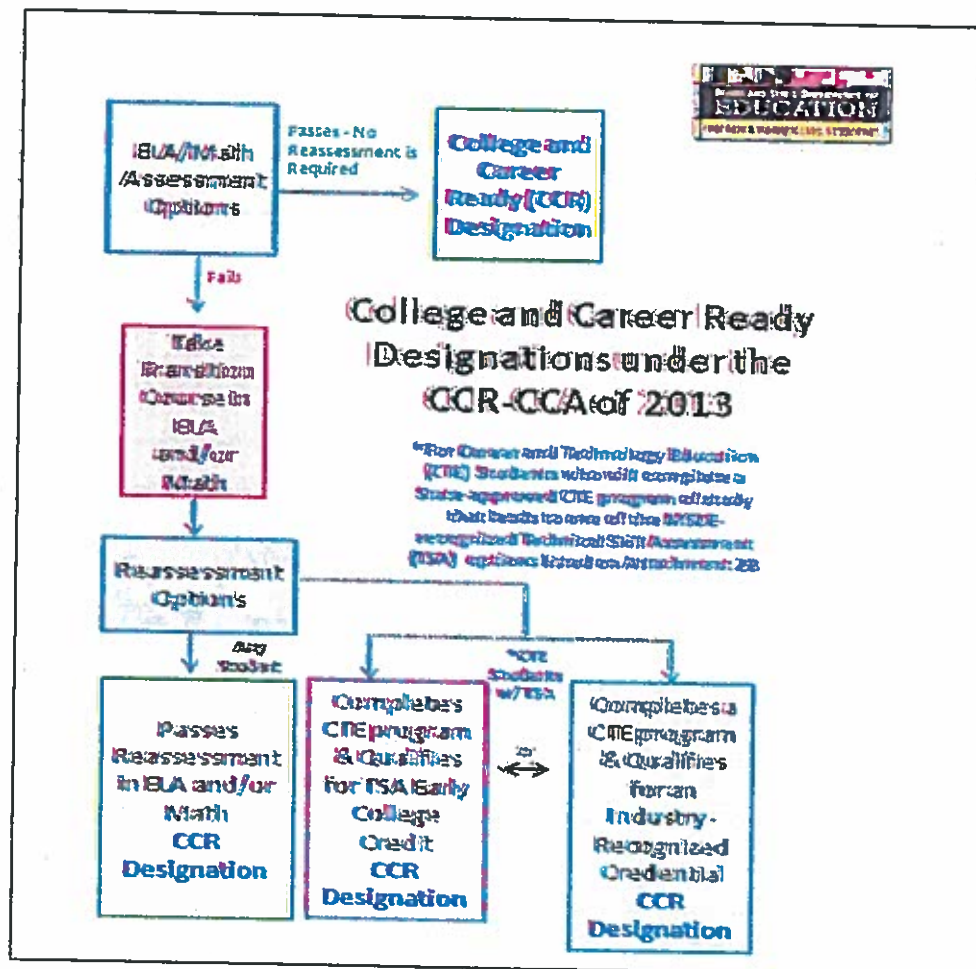
All students benefit by being eligible for enrollment in credit-bearing courses at their community college in order to engage in dual enrollment courses for academic advancement, career exploration, and learning enrichment. When students leave high school prepared to take credit-bearing college courses, the doors to these opportunities are held open for them. For that reason, achieving a qualifying score on the placement test that is recognized by the college is viable and valid evidence that students are college and career ready in alignment with the CCR-CCA. Attachment 2A includes examples of ways that students can be designated CCR through Community College partnerships.

Students who have not yet met the CCR designation by the end of 11th grade will continue to work toward this goal in their senior year. Students will be enrolled in transition courses or other learning opportunities prior to reassessment to be designated CCR.

Career/Technology Program (CTE) option for CCR designation:

CTE students are expected to meet the CCR designation in the same manner, with the same options as other students; however, if they *complete* a State-Approved Career and Technology Education Program of Study, they have an *additional reassessment option*: a Technical Skills Assessment, recognized by MSDE, leading to early college credit, or to a license or an industry certification (see Attachment 2B).

The following chart illustrates this option:



These varied options support all students in their progress toward college and career readiness (CCR). Each provides students a path that is ambitious but attainable, while respecting their goals, talents, and interests. Graduates must also be aware of the admission requirements of the colleges to which they apply as the acceptable scores for entry vary among two- and four-year colleges.

These standards represent higher expectations for many high school graduates. The partnership of local school systems and their community colleges gives clear academic targets and, as needed, articulated learning supports prior to graduation. Achieving CCR standards positions students for entry into credit-bearing college courses. The result is an economy of time and resources for their future success.

An expanded copy of the Local School System Options for Implementing the CCR-CCA appears on the next page.

Attachment 2A: CCR-CC Act of 2013 Assessment and Transition Course Options (Applicable to students taking CCR assessments in the 2016-2017 school year)

		11 th Grade Assessment Options						Can replace CCR Assessment of Senior Coursework	Senior Year Coursework	Senior Year Re-Assessment Options
		PARCC	SAT	ACT	AP	IB	ACCUPLACER	DUAL ENROLLMENT		
English Language Arts (ELA)	English 11 score of level 4 or 5	Score of 500 or greater Evidence-based Reading & Writing (EBRW) Section	Score of 21 or greater Average of English Test & Reading Test	English Language & Composition or English Literature & Composition Exam Score of 3, 4, or 5	Lang. A. Lit. SL or HL or Lang. A. Lit. SL or HL	Reading 79+ and Writing 6+ and Sentence Skills 90+	Admission to and enrollment in a Maryland IHEs appropriate ELA college credit bearing course	If a student is not determined college and/or career ready by the end of 11 th grade, he/she will:	Students who complete senior year transition courses or other instructional opportunities will be reassessed at the end of their senior year using one of the following: Summative Course Assessment (externally validated by local community college) OR PARCC 11 OR SAT/ACT OR Accuplacer OR AP Test OR IB Test	
	English 10 score of level 4 or 5 satisfies the CCR determination (pending further research)	Score of 500 or greater Mathematics Section	Score of 21 or greater on Mathematics Test	Calculus AB Calculus BC Statistics Exam Score of 3, 4, or 5	Math Studies Math SL Math HL Further Math	College Level Mathematics test score of 45+	Admission to and enrollment in a Maryland IHEs appropriate math college credit bearing course.	Complete an ELA transition course or an additional ELA "instructional opportunity" (online, hybrid, module, etc.) in preparation for re-assessment OR Enroll in a transition course articulated with a community college. These articulated college courses include, but are not limited to, Developmental English, courses approved by the community college as sufficient preparation for college	Summative Course Assessment (externally validated by local community college) OR PARCC Algebra II OR SAT/ACT OR Accuplacer OR AP Test OR IB Test	
Mathematics*	Algebra II score of level 4 or 5	Score of 500 or greater Mathematics Section	Score of 21 or greater on Mathematics Test	Calculus AB Calculus BC Statistics Exam Score of 3, 4, or 5	Math Studies Math SL Math HL Further Math	College Level Mathematics test score of 45+	Admission to and enrollment in a Maryland IHEs appropriate math college credit bearing course.	Complete a math transition course or an additional math "instructional opportunity" (online, hybrid, module, etc.) in preparation for re-assessment OR Enroll in a transition course articulated with a community college.	Summative Course Assessment (externally validated by local community college) OR PARCC Algebra II OR SAT/ACT OR Accuplacer OR AP Test OR IB Test	
	Geometry (pending further research) **Please see below				Grade 4 or above on one or more					
Local Agreements	LEAs may use alternate CCR assessment options if an agreement exists between the LEA and a local community college that allows students to take college-level credit-bearing mathematics or ELA coursework using different metrics.									
Career/Tech Programs (CTE)	CTE students who are not designated college and career ready by the end of the 11 th grade must be reassessed by the end of the senior year. Reassessment options include all of the CCR Assessment Options listed above for ELA and mathematics, as well as Career and Technology Education (CTE) Program Technical Skills Assessments that lead to a license, or an industry certification, or early college credit.							An appropriate transition course or other instructional opportunity in conjunction with the completion of a State Approved CTE Program of Study (see Attachment 2B)	A Technical Skill Assessment recognized by MSDE leading to a license, or an industry certification, or early college credit is an option for CTE students only.	
Notes	*If a student is determined "college ready" in mathematics prior to 11 th grade, all CCR requirements have been met for mathematics; however, students entering the 9 th grade in the 2014-2015 school year shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5 th or 6 th year a mathematics course is needed to meet a graduation requirement. **For the 2016-17 school year, LEAs may use the PARCC Geometry assessment as a means to satisfy the CCR assessment requirement for 11 th grade students taking Geometry. Please note that a score of 4 or 5 on the PARCC Geometry assessment does not indicate readiness for college-level credit-bearing mathematics coursework.									

**ATTACHMENT 2B: Maryland Career and Technology Education Programs of Study
CCR-CCA of 2013 - Technical Skill Assessment Chart by Career Clusters**

Career and Technology Education (CTE) students are expected to meet the CCR designation in the same manner, with the same options as other students. However, if they complete a State-Approved Career and Technology Education Program of Study, they have an additional **reassessment option**: a Technical Skills Assessment (TSA), recognized by MSDE, leading to early college credit, or to a license or an industry certification. Reassessment options include all of the CCR Assessment Options included on Attachment 2A for English/Language Arts (ELA) and mathematics, as well as those listed on Attachment 2B.

Students must qualify to receive the early college credit or industry-recognized credential based on the requirements listed in the attachment. If a CTE completer qualifies for one of the CTE Technical Skill Assessment options prior to 11th grade, they are still required to take both the English/Language Arts and Mathematics assessments. The Technical Skill Assessment options are only considered to be reassessment options. CTE students may "bank" any of the TSAs that they qualify for prior to 11th grade in the event that they do not pass either the ELA or mathematics assessments. CTE Students who do not pass the ELA and/or mathematics assessments are still required to enroll in and complete a transition course or other instructional opportunity. Thus, CTE students may be designated CCR as long as they complete their CTE program of study and qualify for the associated industry-recognized credential or early college credit listed in Attachment 2B.

Please refer questions to:

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**ATTACHMENT 2B: Maryland Career and Technology Education Programs of Study
CCR-CCA of 2013 - Technical Skill Assessment Chart by Career Clusters**

NOTE: These assessments only apply to students who are completing a Career and Technology Education (CTE) State Program of Study. This document will be continuously updated as new information becomes available. All costs listed are estimated and are subject to change.

Career Cluster	Maryland CTE Programs of Study	Industry-Recognized Certification, License and/or Early College Credit			Websites for Program Information (Additional Accommodations)	Testing Procedures/ Accommodations	Maryland Certification Costs	
		Program	Teacher	Student			Program	Student
Arts, Media & Communication (AMC)	Printing Technologies (PrintED)	PrintED accreditation in eight areas: Digital File Preparation & Output; Graphic Design; Offset Press Operations/ Bindery & Finishing; and Screen Printing	Teacher is certified through the program. The program accreditation fee also covers the teacher.	Students pass the Graphic Communications assessment and one other from the following list: • Advertising and Design; • Digital File Preparation/Digital File Output; or • Offset Press Operations/Binding and Finishing.	www.ccertf.org The Graphic Arts Education and Research Foundation administers the PrintED program. For information on Skill Connect Assessments for PrintED contact: www.workforcelead.com	Online exam given at the end of the course.	\$1,800.00 accreditation fee covers accreditation process and first-five years. Recertification fee is \$1,000 for five years.	End-of-Course PrintED/Skill Connect exams: \$10 per exam for students who are Skills USA members. Non-member fee is \$20.00. Two exams are required. Total Costs: Members: \$20 Non-members: \$40
		N/A	N/A	There are six certifications in Adobe Creative Suite. Students pass one of the following exams: Dreamweaver, Flash, Illustrator, InDesign, Photoshop, or Premiere Pro.	http://www.adobe.com/support/certification/ace_certify.html Certipoint: Form needed for accommodations, one week prior to test. For form go to: http://www.certipoint.com Test Candidates/Exam Policy/Accommodations	Online exam given at the end of 3 rd or 4 th course, dep. on student prep/ readiness.	\$57.65-\$120/exam Price Determined By Type Of Exam	

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CCR-CCA of 2013 - Technical Skill Assessment Chart by Career Clusters**

Career Cluster	Maryland CTE Programs of Study	Industry-Recognized Certification, License and/or Early College Credit			Websites for Program Information (Additional Accommodations Information)	Testing Procedures/ Accommodations	Maryland Certification Costs	
		Teacher		Student			Program	Student
		Program	Program includes AP courses in Economics	Pass the CLEP Management Assessment OR Pass both of the AP Economics Exams (credit varies by college)			N/A	N/A
Business Management & Finance (BMF)	Business Management	College-Level Examination Program (CLEP)	Program includes AP courses in Economics	Pass the CLEP Management Assessment OR Pass both of the AP Economics Exams (credit varies by college)	clep.collegeboard.org http://apcentral.collegeboard.com/home	CLEP exams are taken at end of the related course The college Board - AP credit by exam Accommodations applied in advance. (www.collegeboard.com/clep or 800-257-9558 ext. 0)	N/A	Costs may vary by state
		OR AP Economics						
BMF	Finance and Accounting	College-Level Examination Program (CLEP)	Program includes AP courses in Economics	Pass the CLEP Accounting Assessment OR Pass both of the AP Economics Exams (credit varies)	clep.collegeboard.org http://apcentral.collegeboard.com/home	The college Board - AP credit by exam Accommodations applied in advance. (www.collegeboard.com/clep or 800-257-9558 ext. 0)	N/A	MOS/Certiport cost determined by school purchase plan for a site license or through bulk purchase of vouchers (costs range from \$25 - \$55 per exam)
		OR AP Economics						
BMF	Marketing	College-Level Examination Program (CLEP)	Program includes AP courses in Economics	Pass the CLEP Marketing Assessment OR Pass both of the AP Economics Exams (credit varies)	clep.collegeboard.org http://apcentral.collegeboard.com/home	Microsoft Office Specialist (MOS) certification exams Accommodations applied for through Certiport.	N/A	
		OR AP Economics						
BMF	Administrative Services	Microsoft Office 2010 or 2013 Word and Excel	Program includes AP courses in Economics	Pass both the Microsoft Office Word and Excel Exams to earn the MOS certification	microsoft.com/learn/mcp/mcp/officespecialist/default.aspx			

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		Program	Teacher	Student			Program	Student
Construction & Development (CD)	Construction Design and Management (CDM)	Maryland Center for Construction Education and Innovation (MCCEI)	MSDE/MCCEI sponsored training at Towson University	Pass Autodesk's AutoCAD certification assessment	www.autodesk.org	Accommodations applied for through Certiport.	N/A	Autodesk / Certiport cost determined by school purchase plan for a site license or through bulk purchase of vouchers (costs range from \$25 - \$55 per exam)
		National Center for Construction Education and Research (NCCER)	Instructor Certification Training Program (ICTP)	Pass the National Center for Construction Education and Research (NCCER) -- Core: Intro Craft Skills and Level I of trade area	www.nccer.org	In school testing by teacher --paper or online Accommodations provided through school-based testing	Must register through an NCCER Sponsor. Teacher certification (ICTP) may cost up to \$400 per instructor.	\$25 per NCCT - Core and Level I
CD	Construction Trades: - Electrical - Plumbing - Carpentry - Masonry	National Center for Construction Education and Research (NCCER)	Instructor Certification Training Program (ICTP)	Pass the National Center for Construction Education and Research (NCCER) -- Core: Intro Craft Skills and Level I of trade area	www.aws.org	In school testing by teacher --paper or online Accommodations provided through school-based testing	Must register through an NCCER Sponsor. Teacher certification (ICTP) may cost up to \$400 per instructor.	\$25 per NCCT - Core and Level I
CD	Construction Maintenance: - Welding - HVAC/R - Mech/Mtn	National Center for Construction Education and Research (NCCER)	Instructor Certification Training Program (ICTP)	Pass the National Center for Construction Education and Research (NCCER) -- Core: Intro Craft Skills and Level I of trade area	Note: incorporated into the NCCER program are the standards for American Welding Society (AWS) Entry Level certification.	In school testing by teacher --paper or online Accommodations provided through school-based testing	Must register through an NCCER Sponsor. Teacher certification (ICTP) may cost up to \$400/instructor.	\$25 per NCCT - Core and Level I
Consumer Services, Hospitality & Tourism (CSHT)	Food & Beverage Management (ProStart)	N/A	Trainer must be Serv Safe Certified	Pass the Level I and Level II end-of-course exams, complete the 400 hour work-based	www.nfrcf.org/prost www.act www.mhcf.org	Two End-of-course assessments (EOC)	N/A	ProStart EOC=\$18/exam (\$36 for both exams)

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		Program	Teacher	Student			Program	Student
CSHT	Culinary Arts	Program must be accredited by the American Culinary Federation (ACF)	N/A	learning (WBL) experience, and submit the WBL competency checklist to the Maryland Restaurant Association to earn the National ProStart Certificate of Achievement	www.acfnets.org/A/M/Template.cfm?Section=Accreditation&Template=/CM/HTMLDisplay.cfm&ContentID=14929	End-of-program assessment	\$1,200 (initial certification fee) \$200 annual fee to be submitted with annual report \$550 renewal fee (every year) First renewal after 3 years then every 5 years @ \$550).	ACF NOCTI Online Written = \$19 Online Written and Practical = \$23 Paper Written = \$26 Paper Written and Practical = \$30 CJC Certificate: \$35
				To earn the Certified Hospitality Tourism Management Professional (CHTMP) certification, students must pass the end of course assessments for the				
CSHT	Hospitality Tourism Management Program	N/A	Certified Hospitality Instructor (CHI)	To earn the Certified Hospitality Tourism Management Professional (CHTMP) certification, students must pass the end of course assessments for the	http://www.ahlel.org/Programs/High-School-Program-HTML/	Two end of course assessments	N/A	All costs for assessments and the CHTMP certification are included in the cost of the students' workbooks. Each workbook is \$50/book

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		Program	Teacher	Student			Program	Student
				HTMP Year 1 and Year 2 courses, complete the 100 hour work-based learning (WBL) experience, and complete the requirements outlined in the WBL competency checklist.				student / year. Two tests = \$100
CSHT	Careers in Cosmetology	N/A	Senior Cosmetology License	The MD State Board of Cosmetology requires students to pass both theory and practical exams to be licensed.	www.dliir.state.md.us/license/cos/cosexam.ms.shtml	Teacher scheduled	N/A	Practical & Theory = \$79 Practical = \$49 Theory = \$49 License = \$25
CSHT	Barbering	N/A	Master Barber License	The MD State Board of Barbers requires students to pass both theory and practical exams to be licensed.	www.dliir.state.md.us/license/barbers/barbersexam.shtml	Teacher scheduled	N/A	Practical & Theory = \$79 Practical = \$49 Theory = \$49 License = \$50
Environmental, Agricultural & Natural Resources (EANR)	Horticulture Services	N/A	Certified Prof. Hort. Pesticide Applicator	Pass the Certified Professional Horticulturalist (CPH) assessment	http://mnlga.org	Contact MD Dept. of Agriculture	Teacher certification \$125 for MNLGA members, \$195 for non-members	\$35 per test
EANR	CASE - Curriculum for		Instructor must attend	Program still under development	http://www.caseonline.org	End-of-program assessments are being	\$285/teacher for online account;	\$15 per test

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CCR-CCA of 2013 - Technical Skill Assessment Chart by Career Clusters**

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		Program	Teacher	Student			Program	Student
	Agricultural Sciences Education		CASE Institutes for each course they will teach	nationally - no certification or postsecondary credit identified at this time	One test per course offered: AFNR, Principles of Agriculture-Animal, Principles of Agriculture-Plant, Food, Science & Safety, and Plant & Animal Biotechnology	developed by CASE	currently, MSDE provides a statewide license	Costs may vary by state
	Environmental Studies			Complete the program with a satisfactory grade-- determined by Towson University (TU) for 3 credits in Environmental Biology awarded by TU	Information found on Towson University Blackboard site; access restricted to trained teachers	End of program testing	Pending	Pending
Health & Biosciences (HB)	Academy of Health Professions (AHP) AHP/CNA	Specialty Course - Certified Nursing Assistant (CNA) portion must be approved by the MD Board of Nursing (MBON)	Must be a Registered Nurse (RN)	Pass the teacher-developed Certified Nursing Assistant assessment	http://www.mbbon.org/main	Teacher developed and administered In house test, provide accommodations, in-house. Contact: MBON	N/A	CNA Background Checks: State Level: \$18 Federal Level: \$24 Fingerprinting: \$20 Certification: Initial: \$20 Renewal (every 2 years): \$40
HB	AHP/GNA	Geriatric Nursing	Must be an RN	Pass the National Nurse Aid	http://www.mbbon.org/main	Schedule test date through ARC	N/A	GNA (NNAAP) Test [written and

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		Program	Teacher	Student			Program	Student
		Assistan: (GNA)		Assessment Program (NNAAP) administered through the American Red Cross. Students must first hold the CNA certificate in order to be eligible to take the GNA exam	http://www.redcross.org www.nnaap.org - copy of GNA handbook			skills); \$105 (Plus the cost of the CNA Certification – see above)
HB	AHP/ Pharm Tech	Specialty Course - Pharmacy Technician (AHP specialty course) Program must be approved by the MD Board of Pharmacy (if not using nationally recognized exams)		Pass one of the following: • Exam for the Certification of Pharmacy Technician (ExCPT) through the National HealthCareers Association (NHA) <u>OR</u> • Pharmacy Technician Certification Board (PTCB)	<ul style="list-style-type: none"> www.dhs.state.md.us www.dhmm.state.md.us/obtainboard/ www.ptcb.org www.nhanow.com 		\$250/student seat license	ExCPT exam = \$105 or PCTB exam = \$129 (Passing scores for either exam are accepted by the MD Board of Pharmacy. ExCPT can be taken by high school students. PCTB requires a high school diploma or equivalent prior to sitting for the exam). \$45 application fee DHMH. Background Checks: State Level: \$18 Federal Level:

**ATTACHMENT 2B: Maryland Career and Technology Education Programs of Study
CCR-CCA of 2013 - Technical Skill Assessment Chart by Career Clusters**

Career Cluster	Maryland CTE Programs of Study	Industry-Recognized Certification, License and/or Early College Credit			Websites for Program Information (Additional Accommodations Information)	Testing Procedures/ Accommodations	Maryland Certification Costs <i>Costs may vary by state</i>	
		Program	Teacher	Student			Program	Student
HB	AHP/CCMA	Specialty Course – Certified Clinical Medical Assistant		Pass the National HealthCareers CCMA Certification assessment	www.nhscw.com		\$24 Fingerprinting; \$20	\$149 to take the CCMA exam - students who pass are awarded a provisional certificate until graduation from high school
HB	AHP/Dental Assisting	Program must be approved by the MD Board of Dental Examiners		Pass the Dental Assisting National Board of Radiation Health and Safety (RHS) and the MD General Exams (MDG). Certified to expose radiographs and in General Chairside procedures.	www.dhmb.md.gov/dental www.dentalassisting.com		\$175 for the Radiation Health and Safety (RHS) exam \$200 for MD General Chairside Exam	Students should take both examinations
HB	PLTW Biomedical Science		BA degree(s) and at least two (2) college semesters of biology with lab experiences	Students are eligible to earn college credit from other PLTW affiliate colleges and universities with a score of 6 or better any of the end-of-course exams. Students are also eligible to earn 4 college credits from	www.pltw.org http://www.stevansdn.edu/academics/school-science/stem-initiatives/project-lead-the-way/		College certification process as set forth by PLTW and MSDE	Fees are associated with the award of credit.

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Human Resource Services (HRS)	Fire Science (Maryland Fire and Rescue Institute - MFR)	All programs should be affiliated with the Maryland Fire and Rescue Institute (MFR)	MFR instructors	<p>Stevenson University for BIO 113 and BIO 113L by doing the following: Completing the program, earning a GPA of 3.0 or higher in all courses, and receiving a score of 7 or better on the PLTW end-of-course assessments.</p> <p>Pass one of the following assessments: • EMT, • EMR, • Fire Fighter I, • Firefighter II (must pass Firefighter I first), • Rescue Tech – Site Operations, • Rescue Technician – Vehicle and Machinery Extrication, or • Haz-Mat Material Operations</p> <p>The following colleges offer credit: Anne Arundel, Cecil, College of Southern Maryland, Frederick,</p>	<p>www.mfri.org www.ets.org/portal/site/ets/manulitem www.americanheart.org www.tandcross.org</p>	<p>Paper and pencil and practical experience</p> <p>Practical test and paper and pencil test</p>	N/A	If program is affiliated with MFR there is no cost to the student

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		Program	Teacher	Student			Program	Student
HRS	Teacher Academy of Maryland	N/A	- Must hold a MD Profess. Certificate - Hold a MA degree, MA equivalent or have 18 hrs toward MA - Three years of teaching and and Recommendation from principal and/or supervisor	Prince George's, and UMUC. Pass: • ParaPro exam with a score of 455 <u>OR</u> • Praxis CORE (passing scores are: Reading – 156, Writing – 162, and Mathematics – 150) <u>OR</u> • SAT with a combined math and verbal (critical reading) score of 1100	www.ats.org www.ats.org	Online test Paper and pencil to meet ADA requirements National test	N/A	\$55 (ParaPro) \$90 for individual Praxis subtest or \$150 for combined test. Additional fees may apply.
		Information/Communications Technology Pathway	Spatial Technology and Remote Sensing (STARS)	Pass the Spatial Technology and Remote Sensing (STARS) assessment to earn Geographic Information System (GIS) certification <u>OR</u> ESRI ArcGIS Certification	http://msst.org/stars-certify.php	On line examination taken at the end of the program of study, within the Information/Communications Technology Pathway	N/A	\$150/student
HRS	Early Childhood Education	Early Childhood Education	Child Development Associate	Child Development Associate (Candidates do not receive a pass or fail	http://www.cdpcouncil.org	Prior to submitting the CDA application, a CDA candidate with a documented disability	Students work-based learning experience must be in a licensed	\$425/student (Some financial support may be available from

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		Program	Teacher	Student			Program	Student
Information Technology (IT)	Database Academy (Oracle)	Oracle Academy	Oracle Certified Associate (OCA I)	score on the CDA Exam and Verification Visit. Rather, the Council comprehensively evaluates how Candidates score in each of the thirteen CDA Functional Areas on the CDA Exam and during the CDA Verification Visit to make a credentialing decision)	Recognition http://academy.oracle.com	should submit the special accommodations request form with to the Council	child care facility	the Child Care Career and Professional Development Fund through MSDE)
		Cisco Academy	Teacher is certified through the Cisco program.	Pass either the: • CompTIA A+ OR • Cisco C-CENT Advanced students may also complete: • Cisco CCNA (or) • CompTIA Network+	www.cisco.com/web/learning/netacad/in dex.html http://partners.comptia.org	Online exam given at the end-of-course.	\$500 per year, per instructor, per course	<ul style="list-style-type: none"> • OCA I - \$95 w/ a 40% discount • OCA II - \$125 w/ a 40% discount
IT	IT – Software-Science and Cyber	Computer Science and Cyber	Program includes two AP courses	Pass one of the AP Computer Science Exams	https://apstudent.collegeboard.org/apcourseres/ap-computer-science	The college Board - AP credit by exam	N/A	AP exam cost is \$93 per exam.

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		Program	Teacher	Student			Program	Student
		Security	and alignment to industry certification through Microsoft	(Postsecondary credit varies by college) OR Pass one of the Microsoft Technology Associate (MTA) -- Developer Pathway Certification exams: <ul style="list-style-type: none"> • Software Development Fundamentals (Exam 98-361) OR • Windows Development Fundamentals (Exam 98-362) 	http://www.microsoft.com/learn/mta/science-2	Microsoft Technology Associate (MTA) certification exams may be offered at any time Accommodations applied for through Certiport.		Certiport cost determined by school purchase plan for a site license or through bulk purchase of vouchers (costs range from \$25 - \$55 per exam)
IT	PLTW Computer Science	Computer Science and Cyber Security		Pass the AP Computer Science Principles Exam (postsecondary credit varies by college)	https://apstudent.collegeboard.org/apcourse/ap-computer-science-principles	The College Board - AP Computer Science Principles	N/A	AP exam cost is \$93 per exam.
Manufacturing Engineering & Technology (MET)	Project Lead The Way (PLTW) Pathway to Engineering:	College Certification Process	Training Institute - 80 hr./ course at a PLTW Affiliate Institution	Students can earn transcripted Engineering Technology credit through the Rochester Institute of Technology for passing the end-of-course exam with a	http://www.pltw.org	End of Course Exam	\$200-300/school certification visit	UMBC = \$5 fee for the credit by exam

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		Program	Teacher	Student			Program	Student
MET	MET-NIMS	NIMS Accreditation and Credentialing Process	NIMS Accreditation is optional; however, if a program goes through the process, then teachers must be credentialed in the four areas that	<p>Stanine score of 6/9 or better on any of the following PLTW courses: IED, POE, DE, CIM, and CEA.</p> <p>Students are also eligible to earn college credit from UMBC for ENES 100 by doing the following: Pass five of the PLTW Engineering Courses, including IED, POE, & EDD. Receive a Stanine score of 6/9 or better on the PLTW end of course exams, and submit the EDD portfolio to UMBC for review.</p> <p>Students pass the Measurement, Materials & Safety exam and one of the following:</p> <ul style="list-style-type: none"> • Job Planning, Benchmark & Layout • Manual Milling Skills I • Turning Operations: Turning Between 	https://www.nims-skills.org/web/nims/home	All areas except Measurement, Materials and Safety (MMS) have both a performance and a theory exam. MMS only has a theory exam.	<p>\$1500 + \$40 Lifetime Registration fee for each teacher</p> <p>Two tests are required. Only the theory exam has a cost associated with it. Students pay a one-time registration fee of \$40.</p> <p>Students from accredited programs pay</p>	RIT = \$225 per course for students with a stanine score of 6 or better on the PLTW end-of-course assessments.

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		Program	Teacher	Student			Program	Student
Transportation Technologies (TT)	Automotive Technology	National Automotive Technology Education Foundation (NATEF) Automotive	Automotive Service Excellence (ASE)	Pass one of the following ASE Student Certification exams: • Suspension and Steering, • Brakes,	www.natesa.com www.natef.org www.ayes.org	National Automotive Student Skills Standard Assessment	NATEF Estimated costs: Initial: \$1,269 Recertification: \$917 AYES affiliation	\$30 per student per academic year. The fee allows for two tests during the test windows.
			they instruct.	Centers • Turning Operations: Turning Chucking Skills • Grinding Skills I • Drill Press Skills I • CNC Turning: Programming Setup & Operations • CNC Milling: Programming Setup & Operations • CNC Turning: Operations • CNC Milling: Operations Students who earn NIMS certification are eligible for articulated credit in the manufacturing programs at the Community College of Baltimore County			\$28/exam (2 exams @ \$28 = \$56 + \$40 registration fee = \$96) Students from non-accredited programs pay \$35/exam (2 exams @ \$35 = \$70 + \$40 registration fee = \$110)	

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		Program	Teacher	Student			Program	Student
		Service Excellence (ASE)		<ul style="list-style-type: none"> • Electrical/ Electronic Systems, • Engine Performance, • Engine Repair, • Automatic Transmission/ Transaxle, • Manual Drive Train and Axles, OR • Heating and Air Conditioning. <p>Developed by ASE in partnership with AYES, NATEF, and SkillsUSA Transcribed credit at CCBC, Montgomery College and Penn College of Technology</p>			no cost	
TT	Autobody Collision Repair Technician	National Automotive Technology Education Foundation (NATEF) Automotive Service Excellence (ASE)	Automotive Service Excellence (ASE)	Pass one of the following ASE Student Certification exams: <ul style="list-style-type: none"> • Painting and Refinishing OR • Structural Analysis and Damage Repair. Developed by ASE in partnership with AYES, NATEF, and	www.na3sa.com www.natef.org www.ayes.org	At end-of-course Contact Wanda Bloomer at NATEF. 800-362-0544 three weeks prior In-house accommodations can be provided. NA3SA is built with extended time.	NATEF Estimated costs: Initial: \$1,269 Recertification \$917	\$30 per student per academic year. The fee allows for two tests during the testing windows.

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		Program	Teacher	Student			Program	Student
TT	Auto body/ Collision Repair Technician			SkillsUSA Transcribed credit available at Penn College of Technology Pass the I-CAR Platinum exam. Transcribed credit available at Penn College of Technology	https://www.i-car.com/Home/Career-Technical-Schools		\$1,100/school	\$50/student for I-CAR account; \$100 end-of-program exams (2)
	Medium-Heavy Truck		Automotive Service Excellence (ASE)	Pass the Diesel Engines ASE Student Certification exam Developed by ASE in partnership with AYES, NATEF, and SkillsUSA Transcribed credit available at Penn College of Technology	www.na3sa.com www.natef.org www.ayes.org	Contact Wanda Bloomer at NATEF. 800-362-0544 three weeks before the test In-house accommodations can be provided. NA3SA is built with extended time.	NATEF Estimated Costs: Initial: \$1,269 Recertification \$917	\$30 per student per academic year. The fee allows for a single attempt at any or all tests in a series.