Life-Ready
Globally Competitive

HIGH SCHOOL Comprehensive Program Report

DRAFT

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Our Vision

Montgomery County Schools will graduate life-ready, globally competitive students that perform academically in the top 25 of NC school systems.

Our Mission

MCS will graduate life-ready, globally competitive citizens by engaging in rigorous educational experiences and by building positive relationships and strong partnerships.

Our Core Values

High Expectations
High Ethical Standards
Motivated to Achieve
Child Centered
Service and Safety Driven
Continuous Improvement Focus
Data-driven Decisions
Results Matter

Preface from the Academic Sub-Committee Report on Programming

In completing a comprehensive analysis, much thought and consideration was placed into the determination of academic needs with little regard to what the facilities need to look like. The primary concern in this analysis was an accurate and true evaluation of where we are academically as an aligned educational system and where we need to be for the future. Once the academic needs were ascertained, an analysis of next steps was conducted with the knowledge that there were 3 possible facility solutions to meet the academic needs for the county as follows:

1. Renovate the two existing high school facilities
2. Build a new comprehensive high school facility
3. Build a shared Career and Technical Education Center on the campus of MCC

Summary of Academic Performance

In a review of academic performance measures, there has been much growth within the Montgomery County Schools over the last few years. The graduation rate is the highest it has ever been within the county. However, there is much work left to do. While there are multiple factors that add to the challenge of educating our children, it is our job to overcome such factors, i.e. poverty and other socioeconomic factors.

Montgomery Community College also has been successful in engaging students in their various programs. MCC has programs that are unique and they are recognized across the country for their rate of success within those programs.

In light of the current high school graduation rate, currently at around 87%, there should be a large pool of students to fill employment needs within the county, both in non-skilled positions that require only a high school diploma and in students to feed into various training programs at Montgomery Community College and the university level to further education and meet those needs.

However, when discussing employment needs, local employers discuss the skills gap that currently exists in the county. The current labor pool that is available does not meet the needs of our local employers and the jobs that are available. Without significant investments in education, this need will continue to go unfulfilled and it will continue to hamper economic development in the county.

Summary of Academic Need

Multiple factors exist that lead to the skills gap cited by local employers. While any analysis of this gap will appear to be oversimplified, the primary factor involved is that the standards required to graduate high school are lower than the standards expected and required by local employers. With that fact in mind, it is imperative that the high school experience be more rigorous and aligned to the needs of local employers.

An analysis of local labor demands shows a great upward trend in the number of medical, construction, carpentry, masonry, translating, and other entry level trades jobs available in Montgomery County. In an expanded analysis of the surrounding region, it is concluded that preparation programs in these areas are essential in further developing the regional workforce.

The Montgomery County High School experience needs to be enhanced with more advanced placement and college preparatory courses and aligned courses in the Career and College Promise program in the area of career and technical education (CTE) courses.

In the area of CTE, Montgomery County Schools needs to narrow the focus and scope of the courses. In an effort to be equitable across the county, the school system has recently expanded course offerings in this area. To be aligned to labor needs, these programs need to be revamped and more clearly aligned to the needs of local and regional employers. The programmatic needs in the area of CTE will help close the skills gap.

According to a recently released study from Change the Equation, an organization that supports STEM education, there are 3.6 unemployed workers for every job in the United States. That compares with only one unemployed STEM worker for two unfilled STEM jobs throughout the country. Many jobs are going unfilled simply for lack of people with the right skill sets. Even with more than 13 million Americans unemployed, the manufacturing sector cannot find people with the skills to take nearly 600,000 unfilled jobs, according to a study last fall by the Manufacturing Institute and Deloitte.

Only 16 percent of American high school seniors are proficient in mathematics and interested in a STEM career. Even among those who do go on to pursue a college major in the STEM fields, only about half choose to work in a related career. The United States is falling behind internationally, ranking 25th in mathematics and 17th in science among industrialized nations. In our competitive global economy, this situation is unacceptable.

PROJECTED PERCENTAGE INCREASES IN STEM JOBS: 2010-2020
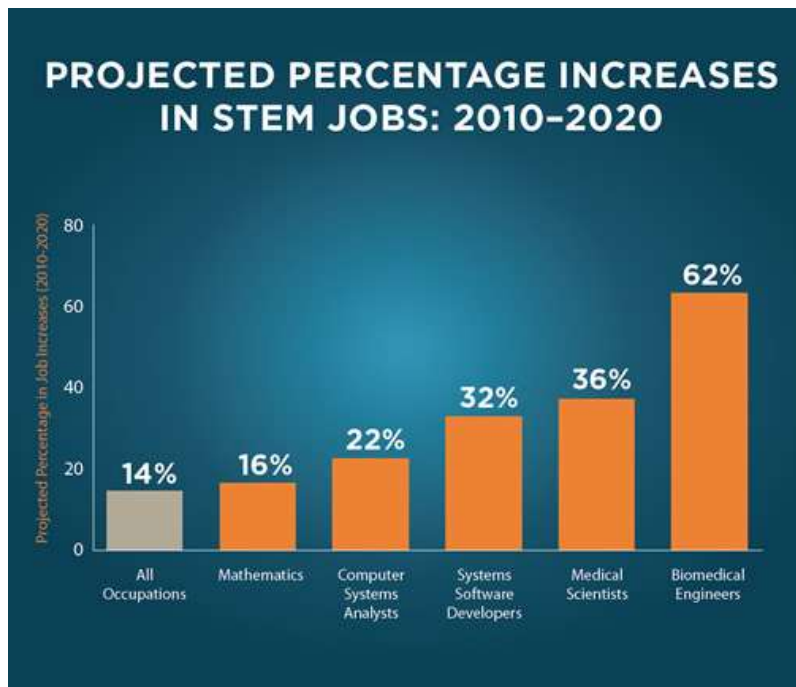
North Carolina has seen similar trends to that of the United States and the STEM field. North Carolina, as many other states, is undergoing a critical economic transformation, moving rapidly from a low skill, low-wage economy to that of a high skill knowledge-based one driven by technology and innovation. These changes demand an adaptable workforce. This workforce includes those with science, technology, engineering and mathematics embedded within the critical 21st century skills required for successful citizenship in the state. While North Carolina can boost it has a high number of statewide and local STEM education initiatives already underway but these within themselves are still too little to supply the ever-demanding times of STEM educated students in the workforce. North Carolina has developed in education strategic plan to help develop STEM within the state. The priorities are 1) increasing student, educator and institutional STEM achievement, 2) gaining and sustaining broader community understanding and support for innovations in support and, 3) connecting and leveraging STEM resources across the public and private sectors.

In North Carolina it is the middle jobs, those which pay family sustaining wages and require minimal formal education or training that are disappearing. Furthermore, impending baby boomer retirements will exacerbate the emerging gap between worker skills and job demands. This shift to a new economy must happen now if a client is to maintain its leadership in the marketplace.

North Carolina has approximately 400,000 STEM related jobs and more than 70,000 new jobs anticipated by 2020. This reflects the growth rate greater than all other jobs added together in the state. STEM related jobs and probably 64% more than the average job. Chief Executive Magazine and Forbes consistently tout North Carolina as a leading state in which to do business. The state was second in the nation for job creation between September 2009 and September 2010, and fifth in the nation for personal income growth since 2009. In order to maintain a high level of preparedness, workers must have the skills leading companies demand. Those skills are clearly STEM focused.

According NCWorks initiative, North Carolina's educational system is a critical partner, as it represents the most important factor in assuring the state has the best available supply of workers. North Carolina has aligned the K-12 education system with post-secondary institutions of higher learning and economic needs of the state through the introduction of career and college ready programs. These programs are designed to ensure the public education system graduates high school students who are equipped to succeed post-secondary education and be prepared to compete successfully in a global economy.

The state's initiative to improve the quality and quantity of workers prepared for 21st century economy and workforce starts with priority one: improving STEM achievement. The K-12 education system curriculum has been adapted to ensure that all students have the opportunity

to gain the 21stcentury skills necessary to fulfill this priority. Math and science along with literacy are the key areas in which the education system focuses to ensure students are prepared for the global economy. Priority two: bolstering community understanding and support. The state has launched numerous campaign initiatives to put stem at the forefront of funding both publicly and privately. Priority three: connect, leverage, and increase STEM resources through partnering with industry, local communities, and developing partners through the North Carolina Board of Science and Technology to help solidify STEM within the state.

Analyzing the Options

Renovate the Two Existing High Schools

Updating the facilities at both high schools will give students access to new learning spaces including labs and classrooms. The current technology infrastructure will be upgraded to include new space coverage and density for more devices. Among the pros are fewer maintenance work orders; possible auxiliary gyms, renovated media centers, and maintaining the existing school culture. Additionally, adding more space at MCC to accommodate STEM related courses to be accessed by high school and traditional students is a way that the two systems could collaborate. The space could be used to offer shared programs, such as an industrial electricity program offered for high school students on the campus of MCC. This is an example of a program that could be integrated with an existing MCC program. Welding and allied health are other programs where this model would work well. Possible limitations to this solution include the same issues that exist currently. They are limited alignment and access to Montgomery Community College, duplicated program expense for salaries, equipment, utilities, and sports (approximately $27,200,000 over a 40-year loan period.) Transportation to and from Montgomery Community College also serves as a limitation to this programming option.

Liability and costs exists for busing and student drivers. Ultimately, the economy of scale prevents growth in several program areas as they are currently designed.

Provide for 1 New High School Adjacent to MCC

Providing for a new high school adjacent to Montgomery Community College will provide for the implementation of a wider array of Career and Technical, Advanced Placement, and historically low enrollment courses. Centralized support services will translate into less loss of transition time, better counseling services and more funds to support industry standard equipment, centralized band, art, drama, and chorus programs. In addition, greater access to Career and College Promise courses will result from having the adjacent facilities as travel restrictions currently limit these. Anticipated increases in internships, apprenticeships, job shadowing, and cooperative learning opportunities are expected.

Consolidations totaling approximately $27,200,000 in savings over 40 years include the automotive, agriculture, arts, healthful living, core, student services, distance learning, and administration. Anticipated additions may include 3_{rd} and 4_{th} level languages, Project Lead the Way, STEM courses, Marketing, Electrical Trades, Horticulture, Culinary, E-Commerce, Speech/Debate, Physics, AP Calculus, AP Social Stdies, AP English, AP Spanish, and Early College. Also there will be opportunities to increase customized training and local course options in response to expanding markets such as advanced manufacturing and medical.
A single high school adjacent to the community college will help to foster stronger communication and alignment to a point where students have greater access and ease of transition through the K-16 experience.

Some limitations to this option include establishing the East/West culture into one, training and re-culturing the community, students, parents, and businesses. Another common

concern centers on what to do with the current facilities.

Provide for a CTE Facility at MCC

Opportunities and programs that a shared facility would support: Industrial Systems, STEM College Transfer courses, CTE pathways that we are not currently offering such as Automotive Technology. The challenge for a shared facility will be scheduling, but it would provide opportunities for collaboration with our current offerings (Biology, Medical Assisting, Nursing Assistant, Phlebotomy, Math, and College Transfer). For example, the high school would offer automotive technology during the day, which could allow MCC to offer courses in Auto Mechanics in the evening. Another opportunity may be closer collaboration in the afternoons where a MCS teacher could work PT for MCC in certain courses. BIO 165/166 would work well here. The schedule would need to be developed so that we are using the facility day and evening for MCS and MCC curriculum and continuing education courses. A new welding facility would benefit both educational institutions. The programs that currently offer CCP pathways is another opportunity for a shared facility. This facility would also open up the exploration of future CCP pathways.

Presenting the Findings

Consolidated High School with Designated Early College Space

After much deliberation and insight to the current status of Montgomery County's educational opportunities, the committee has determined that a combination of a consolidated high school with a designated early college space is the best fit for our students. As such, the committee developed the following list of reasons to support this recommendation. Montgomery County Schools will be able to provide:

- More diverse offerings to include wider array of CTE and Advanced Placement courses
- Centralized support services
- Less loss of transition time
- More funds available for industry standard equipment
- Greater access to Career and College Promise College Courses for both early college Students and regular high school students.
- Increased number of organized extra-curricular clubs, student organizations, and competitions
- Increased access to internships, apprenticeships, job shadowing and cooperative learning opportunities
- Integrated Early College
- Wider variety of courses for OCS students
- Better coordination for support services and guidance
- Centralized Band, Art, Drama, and Chorus programs
- Increased access to historically low enrollment courses which may or may not make
- Consolidations (approximately $27,200,000 savings over span of loan terms- 40 years)
- Consolidation examples may include: automotive, agriculture, arts, healthful living, core program areas, student services, distance learning.
- Additions
    - Low enrollment courses (3rd and 4th levels)
    - New programs (examples) Project Lead the Way, STEM courses, Advanced Manufacturing, Marketing, Electrical Trades, Horticulture, Culinary, E-Commerce, Speech/Debate, Physics, AP Calculus, AP US History, AP English, Early College
    - Industry standard equipment for: Advanced manufacturing, culinary, automotive, agriculture, trade and industry, sciences, technology, et. al.
- Increased opportunity for customized training and local course options for changing labor markets (i.e. advanced manufacturing, medical, industrial)
- Fosters better stronger communication between HS and CC
    - Classes offered at both sites from both institutions
- Ability to attract specialized personnel and programs

- K-16 model provides alignment, access, and success!

Cons:
- Re-establish East/West culture into ONE
- Training & re-culturing current community (staff, students, parents, and other stakeholders)
- Designate uses for current facilities

In summation, the academic subcommittee strongly advises for the consolidation of the two current high schools into one which will sit next to Montgomery Community College. The Early College and shared CTE facility will provide the additional opportunities the county needs to move the level of education in MCS forward. In the subsequent report, there is a detailed and comprehensive plan presented for the curriculum program offerings.

Table of Contents

Executive Summary and Purpose

Montgomery County Schools is committed to provide our students with a first class education which prepares them to be globally competitive and life ready. This comprehensive programming report includes all aspects of Montgomery County's current high school curriculum programming as well as proposed changes. In the subsequent pages, there are;

- Career and Technical Education (CTE), and curriculum program areas;

- descriptions of curriculum changes and justifications for each

- complete descriptions of the high school graduation requirements and courses;

- testing requirements;

- certification and credentialing opportunities;

- and other necessary information pertaining to the successful completion of the high school curriculum.

All CTE proposed changes are supported with local and regional labor market data with the purpose of preparing students to be ready for a career in our region. Additional changes in Advanced Placement, Career and College Promise, Early College, and International Baccalaureate, are rooted in the need to increase college readiness and rigor.

The following tables represent a preliminary at-a-glance overview of the proposed programming changes. Many new programs are being proposed as you will see. In some areas our district has historically low levels of enrollment. This is not due to lack of interest or relevance; contrarily, this is due to the current scheduling design. For example, many CTE programs have served both high school alternating semesters. This design provides equity between the two high schools in course offerings and opportunity. On the other hand, it limits the ability to provide higher level courses on a consistent basis to both schools. Another

example lies in the ability to offer variety and frequency of Advanced Placement (AP) courses. Typically, as you will see in the Typical High School Course Matrix in the appendix, each school will make 2 or 3 AP courses in a given year. We do not currently have active AP offerings at both schools in social studies, English Language Arts, Computer Science, and other areas. It is common that we have 5-8 students from each high school interested in a particular course of study. With such low numbers we cannot currently dedicate staff and resources to such low numbers. Combined, we can. The consolidation of programs will provide our students access to AP courses that we have never before been able to offer.

		Preliminary Consolidated HS Programming Changes--Draft		
	Program Area	**Current Programming**	**New Programming**	**Replacing**
Advanced Placement	**AP**	AP Biology		
		AP Earth and Environmental Science		
			AP Government and Politics	NEW
			AP Human Geography	NEW
			AP World Language	NEW
			AP English & Composition	N/A
			PLTW	NEW
			AP Computer Science	NEW
Career and Technical Education	**Trade & Industry**	Automotive Technology		
		Firefighter Technology		
		Masonry		
		Cabinetmaking		
			3rd and 4th Levels- Automotive Technology, Masonry, Firefighter Technology, Cabinetmaking	Unable to make consistent 3rd and 4th level classes
			Construction Technology/Trades & Core and Sustainable	NEW
	STEM- CTE only not incuding regular education STEM courses	Scientific Visualization		
		Drafting		
			Project Lead the Way (PLTW)- 4 Course Engineering Pathway	Scientific Visualization & Drafting
			AP Computer Science & Computer Programming	NEW
	Family and Consumer Science	Foods Technology/ ServSafe		
			Culinary Arts- Commercial	NEW- Replacing Foods
	Agriculture	Animal Science		
		Agriscience Applications		
		Agriculture Mechanics		
			Horticulture and Envrionmental and Natural Resources	Animal Science
			Bio-tech& Agriscience Research	NEW
	Health Science	Health Science I, II		
		Nursing Fundamentals		
			Pharmacy Tech	NEW
			Biomedical Technology	NEW- Replacing Nursing Fundamentals- MCC
	Business, Finance, Information Technology	Microsoft Certified User		
		Career Management		
		Personal Finance & Principles of Business and		
			AP Computer Science, Computer Programming, Entrepreneurship	NEW- Possibly replace MSITA
Career and	**Industrial**		Welding	NEW*
			HVAC	NEW*
			Hydraulic / Pneumatic	NEW*

Preliminary Consolidated HS Programming Changes--Draft				
	Program Area	Current Programming	New Programming	Replacing
Career and College Promise	Industrial		Welding	NEW*
			HVAC	NEW*
			Hydraulic / Pneumatic	NEW*
			Motor Controls	NEW*
	Forestry		Forestry	NEW*
	Medical Science		Phlebotomy	NEW*
			Nurse Aide I	NEW*
Early College	Associate Programs		Engineering	NEW
			Applied Science Industrial Maintenance	NEW
			Science	NEW
			Arts	NEW
International Baccalaureate				NEW
*NEW for HS students or very low CCP enrollment due to schedule demands/contact hours				
Note: Current programming will continue unless noted as being replaced.				
New pogramming to consider: Electrical Trades, Network Engineering/Administration, Project Management, EMT, Adobe Digital Design, PLTW Bio, e-Commerce, Ag Production				

In summary, from an academic standpoint, the consolidation of the two existing high schools provides greater access a wider array of course offerings, career and technical pathways, advanced placement courses, and CCP dual enrollment paths.

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Early College Program Summary

Montgomery County Early College is a Science-Technology-Engineering-Arts-Math (STEAM) school, with a five-year course sequence that will provide students with a highly supportive and academically challenging program of study with a strong emphasis on future-ready skills. Students will be immersed in a project-based learning environment using an engineering design process. Through inquiry, students will be organized into problem-solving teams intended to develop 21st century and entrepreneurial skill sets - critical reasoning, communication, creativity, and collaboration. Job shadowing, internships, and work-based learning within energy-related businesses and industries will provide students with real-world experiences designed to provide relevance to academic studies.

The early college targets three broad categories of competencies – advanced manufacturing, engineering, and information technology – as priorities. Through its partnership with the Montgomery Community College, and its use of the Project Lead the Way Pathways to Engineering Curriculum, STEAM MCEC will focus on the energy industry and engineering competencies. A common instructional framework using research-based strategies will be consistent and pervasive throughout the school. All course projects will integrate energy generation and sustainability themes.

Framed around the National Academy Foundation model, a sequence of four to six honors-level Project Lead The Way (PLTW) courses as well as Montgomery Community College early engineering coursework will provide students with a foundation for college and career success in STEAM-related fields.

Finally, MCEC targets seven priorities for the region. The first two involve an overall improvement of the K-12 education system as well as better engagement by the colleges and universities in the region's economic development to respond to changes in industry needs and alignment of training and curriculum.

The STEAM MCEC will serve as a regional site for teacher professional development as a means to enhancing the overall quality and effectiveness of teachers in STEAM fields. It will be used as

a learning laboratory to inform preparation for students in the Montgomery County and surrounding regions. The innovative curriculum developed in consultation with business and energy leaders will include project-based learning techniques to foster a culture of collaborative inquiry among faculty and students.

Overall, STEAM MCEC will serve as a model of secondary, postsecondary and industry partnerships to inform high growth industry needs, as well as associated skill sets and curricula, and to provide a vehicle for both classroom and work-based learning.

Students will take the courses required for the NC Future Ready Core Course of Study for a high school diploma. These are the same basic requirements as at all NC public high schools. However, all courses will carry the theme of energy production and sustainability throughout the curriculum. Each student will have an individualized education plan based on their post high school graduation plans and career goals. Students will be assigned an academic counselor to provide support throughout the early college high school experience and to provide advisement on course selection. Key to the curriculum and structure of the school day will be opportunities for tutoring as well as participation in seminars that help students explore how to be successful in college studies.

A course of study guide aligned to potential degree options and career outcomes will be provided for all students to help them choose courses that are best aligned to their interests and aspirations. The course of study guide will identify courses for each semester per grade level to help students and their parents make decisions based on the student's goals. Courses required for the NC Future Ready Core Course of Study for a high school diploma will be offered as well as college level courses related to the program theme. Students will take mostly high school courses during the ninth grade year and increase the number of college courses as they progress in the program.

The early college high school movement encourages the creation of small schools to build highly personalized and supportive learning environments. The instructional framework will include small class sizes and a challenging learning environment that is the collaborative work of students, staff, and

industry partners. Course content will be thematic in nature to allow students to explore areas of personal interest. Students will participate in projects that expand learning beyond the classroom. Problem based learning strategies will be utilized to bring real world relevance to learning. Finally, students will be encouraged to participate in academic contests and extra-curricular activities that further the school theme such as Envirothon, Quiz Bowl, Math Olympiad and Science Olympiad.

Pathways to Engineering & Work-Based Learning

A critical component of the curriculum will be the use of The Project Lead the Way (PLTW) Pathway to Engineering (PTE) program. PTE is a sequence of courses which follows a proven hands-on, real-world problem-solving approach to learning. Students will learn and apply the design process, while practicing and acquiring non-cognitive skills such as teamwork, presentation and communication skills, creative- and critical-thinking, and problem-solving. Students will have access to PTE Foundation Courses such as Introduction to Engineering Design and Principals of Engineering to prepare them for introductory college-level courses in engineering.

Job shadowing, internships, and work-based learning within energy-related business and industries will provide students with real-world experiences designed to provide relevance to academic studies. The value of work based learning cannot be understated. It is an opportunity for students to "try on" a career, to apply and strengthen what they have learned in the classroom, and to validate a chosen major or career path.

Classroom Environment and Technology

STEAM MCEC will use a variety of class configurations for its delivery of instruction including flipped classrooms, blended course models, co-teaching, and off-site experiential sessions that require flexible class scheduling in a technology-rich environment.

A weekly schedule template with four segments will be developed, allowing for varied blocks of instructional time. The fourth segment of each day will be reserved for teachers to co-teach, blend

classrooms/courses, and engage students in cross-curricular instruction and activities. One day per week, the fourth segment of the day will be reserved for experiential learning, individual and small group tutorials or acceleration, and whole school activities.

Classrooms will be equipped with a basic set of digital teaching and learning resources including a desktop computer, interactive whiteboard with speakers, and a set of student digital devices. Teachers and students will also have access to digital resources that align with and support digital age learning and work such as student responders, tablet technology, document cameras, digital textbooks, and data portals. These resources will be used to foster flexible differentiated instruction, student response and enhanced engagement.

Students will use digital media such as student email and online learning environments to communicate with instructors and collaborative learning groups about projects and class assignments. Students will create online portfolios to capture their learning progress, performance on projects encompassing real world tasks, and completion of online coursework.

The proposed MCEC Curriculum Pathways are outlined on the following pages.

Proposed
Cooperative Innovative High School Curriculum Template
Associate in Engineering

High School	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4	Fall 5	Spring 5
English: 4 credits English I, II, III, IV		Honors English I	Honors English II		Honors English III [3]		Honors English IV [3]			
Mathematics: 4 credits Math I, II, III and 4th math	Foundations of Math I	Math I	Honors Math II	Honors Math III	Math IV [3]					
Science: 3 credits Earth/Env. Science, Biology, physical science	Honors Earth and Enviro.		Biology A [3]	Biology B [3]			Physics A [3]	Physics B [3]		
Social Studies: 4 credits Amer. Hist. I and II, World History, Found Prin/Civics/Econ.	Honors Civics and Econ	World History [3]			American History I [3], American History II [3]					
Health and Physical Education: 1 credit	Health & PE									
Electives: 6 credits*		PLTW Intro to Engineering	CTE Elective	PLTW Principles of Engineering	ACT Prep	PLTW Civil Eng. & Arch.	World Language I	PLTW Computer Integrated Manufac., World Language II	Internship/WBL	PLTW Biotechnical Engineering, Internship/WBL
College	**Fall 1**	**Spring 1**	**Fall 2**	**Spring 2**	**Fall 3**	**Spring 3**	**Fall 4**	**Spring 4**	**Fall 5**	**Spring 5**
English Composition (6 sh)					ENG 111	ENG 112				
Humanities/Fine Arts (6 sh from two different disciplines)				ART 111, MUS 110, or COM 231			ENG 231			
Social/Behavioral Sciences (6 sh from two different disciplines)					HIS 111, (HIS 112 AS [4])- 8 wk	ECO 251				

Mathematics (12sh)					MAT 171	MAT 172		MAT 271	MAT 272	MAT 273
Natural Sciences (12 sh)							PHY 251	PHY 252	CHEM 151	
Academic Transition (1 shc)**									ACA 122	
Pre-major Elective (2 shc)***							EGR 150			
Other Required Hours (15 shc)****	CIS 110	HIS 131, HIS 132- 8 wk	BIO 111	(BIO 112-AS[4])						CHEM 152
Total High School: 22 Total College: 60-61	HS- 4 CC- 3 Classes- 5	HS- 4 CC- 6 Classes- 5	HS- 4 CC- 4 Classes- 4	HS- 3 CC- 3 Classes- 4	HS- 4 CC- 10 Classes- 5	HS- 2 CC- 10 Classes- 4	HS- 3 CC-9 Classes- 4	HS-3 CC-8 Classes-4	HS- 1 CC- 9 Classes- 4	HS- 2 CC- 8 Classes-4

HS- 31   CC- 70

High School Diploma Notes
1. Graduation requirements must align with NC State Board of Education policies. Refer to NCDPI's Dual Credit Chart to see opportunities for dual credit and align curriculum pathways to both high school and community college.
2. *Pay close attention to UNC Minimum Course Requirements to inform your planning for student completion.
3. Wherever possible, MCS will articulate high school credit for earned college credit according to the approved Dual Enrollment Memo from NCDPI.

Associate in Engineering Notes
1. **Academic Transition – Students must complete ACA 122 College Transfer Success (1 SHC) within the first 30 hours of enrollment.
2. *** Pre-major Elective (2 SHC) – EGR 150 Introduction to Engineering (2 SHC) must be included in the program of study.
3. **** Other General Education and Pre-major Elective Hours (15 SHC) - Select 15 SHC of courses from the following courses classified as pre-major, elective, or general education courses within the Comprehensive Articulation Agreement. (Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.) Students should choose courses appropriate to the specific university and engineering major requirements.
4. Students in this pathway will be dually enrolled in the Associate in Science program. These courses are not counted in the totals for the AE pathway.

BIO 111 General Biology I (4 SHC)

CHM 152 General Chemistry II (4 SHC)

COM 110 Introduction to Communication (3 SHC)

CSC 134 C++ Programming (3 SHC)

CSC 151 JAVA Programming (3 SHC)

DFT 170 Engineering Graphics (3 SHC)

ECO 252 Principles of Macroeconomics (3 SHC)

EGR 210 Intro to Electrical/Computer Engineering Lab (2 SHC)

EGR 212 Logic System Design I (3 SHC)

EGR 215 Network Theory I (3 SHC)

EGR 216 Logic and Network Lab (1 SHC)

EGR 220 Engineering Statics (3 SHC)

EGR 225 Engineering Dynamics (3 SHC)

EGR 228 Introduction to Solid Mechanics (3 SHC)

HUM 110 Technology and Society (3 SHC)

MAT 280 Linear Algebra (3 SHC)

MAT 285 Differential Equations (3 SHC)

PED 110 Fitness and Wellness for Life (2 SHC)

Community college curriculum programs must be compliant with Curriculum Standards approved by the North Carolina Community College State Board. For a complete listing of curriculum standards, go to: http://www.nccommunitycolleges.edu/academic-programs/curriculum-standards

Proposed
Cooperative Innovative High School Curriculum Template
Associate in Applied Science (AAS)- Industrial System Technology

High School	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4	Fall 5	Spring 5
English (4 credits)		Honors English I		Honors English II		English III[5]		English IV[5]		
Mathematics (4 credits)	Foundations of Math I*	Math I	Honors Math II		Honors Math III		Math IV			
Science (3 credits)	Honors Earth & Environmental		Biology A or BIO 111	Biology B or BIO 112		Physical Science				
Social Studies (4 credits)	Honors Civics and Econ		World History		American I	American II				
Health and Physical Education (1)	Health & PE									
Other (6 credits)							World Language[4]	World Language[4]	Internship/WBL/ Senior Seminar- 2 credits	Internship/WBL/ Senior Seminar- 2 credits
College	**Fall 1**	**Spring 1**	**Fall 2**	**Spring 2**	**Fall 3**	**Spring 3**	**Fall 4**	**Spring 4**	**Fall 5**	**Spring 5**
English Composition/Communications (6 sh)							ENG 111 (3)		ENG 114 (3)	
Humanities/Fine Arts (3 sh)										HUM 110 or HUM 115 (3)
Social/Behavioral Sciences (3 sh)			PSY 150 or SOC 210 or ECO 251 (3)							
Natural sciences/Mathematics (3sh)				MAT 121 (3)						
*Minimum Major Hours (49 shc)**		CIS 110 (3) ELC 126 (3)	ELC 112A (2)	ELC 112B (3)	ISC 110 (1) BPR 111 (2)	ELC 117 (4) MEC 111 (3)	MNT 110 (2) WLD 112 (2)	ELC 128 (3) MEC 130 (3)	ELC 115 (4) ELN 260 (4)	PCI 264 (4) ELN 229 (4)
*Other Required Hours (0-7 shc)***								HYD 110 (3)	HYD 180 (3)	

Total High School: 28 Total College: 64-76	HS- 4 CC-0 Courses- 4	HS- 2 CC- 6 Courses- 4	HS- 3 CC- 5 Courses- 5	HS- 2 CC- 6 Courses- 4	HS- 2 CC- 3 Courses- 4	HS- 3 CC- 7 Courses- 5	HS-2* CC- 7 Courses- 5	HS- 2* CC- 9 Courses- 5	HS- 2 CC-14 Courses-6	HS- 2 CC- 11 Courses- 5

GRAND TOTAL: HS- 24   CC- 68 shc

Associate in Applied Science Notes

1. **General Education**. Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications.

2. ****Major Hours**. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

3. *****Other Required Hours**. A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours. Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.
4. Optional- May substitute another elective.   Required for UNC system enrollment.
5. These courses can earn honors weight if articulated with CC.

For more information on the Associate in Applied Science Degree(s): http://www.nccommunitycolleges.edu/academic-programs/curriculum-standards

Proposed
Cooperative Innovative High School Curriculum Template
Associate in Science

High School	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4	Fall 5	Spring 5
English (4 credits)		Honors English I	Honors English II		Honors English III [3]		Honors English IV[3]			
Mathematics (4 credits)	Elective Foundations of Math I	Math I	Honors Math II	Honors Math III	Math IV[3]					
Science (3 credits)	Honors Earth & Environmental		Biology A[3]	Biology B[3]			Physics or Chem A[3]	Physics or Chem B[3]		
Social Studies (4 credits)	Honors Civics and Econ	World History[3]			American History I[3],	American History II[3]				
Health and Physical Education (1credit)	Health & PE									
Other (6 credits)			CTE Elective	CTE Elective	ACT Prep	CTE Elective	World Language I WorkKeys Prep	World Language II	Internship/WBL/Senior Seminar- 2 credit	Internship/WBL/Senior Seminar- 2 credit
College	**Fall 1**	**Spring 1**	**Fall 2**	**Spring 2**	**Fall 3**	**Spring 3**	**Fall 4**	**Spring 4**	**Fall 5**	**Spring 5**
English Composition (6 sh)					ENG 111 (3)	ENG 112 (3)				
Humanities/Fine Arts (6 sh from two different disciplines)				ART 111, MUS 110, or COM 231 (3)				ENG 231 (3)		
Social/Behavioral Sciences (6 sh from two different disciplines)					HIS 111			PSY 150 (3)		

Natural Sciences (8 sh)			BIO 111 (4)	BIO 112 (4)						
Mathematics (8sh)					MAT 171 (4)	MAT 172 (4)				
Additional General Education Hours (11 shc)**		CIS 110 (3)				HIS 112 (3)	MAT 271 (3)		ENG 241 (3)	
Other Required Hours (15 shc)***							CHEM 151 (4)	CHEM 152 (4)	College Elective (3)	ACA 122 (1) College Elective (3)
Total High School: ____ **Total College: 60-61**	HS- 4 CC-0 # of Courses- 4	HS- 3 CC- 3 # of Courses- 4	HS- 4 CC-4 # of Courses- 4	HS- 3 CC- 7 # of Courses- 4	HS- 4 CC- 10 # of Courses- 4	HS- 2 CC- 10 # of Courses- 4	HS- 4 CC- 7 # of Courses- 4	HS- 2 CC- 10 # of Courses- 4	HS- 2 CC-6 # of Courses- 4	HS- 2 CC-4 # of Courses-4

GRAND TOTAL: HS- 30 CC- 61

High School Diploma Notes

1. Graduation requirements must align with NC State Board of Education policies. Refer to NCDPI's Dual Credit Chart to see opportunities for dual credit and align curriculum pathways to both high school and community college.
2. *Pay close attention to UNC Minimum Course Requirements to inform your planning for student completion.
3. Wherever possible, MCS will articulate high school credit for earned college credit according to the approved Dual Enrollment Memo from NCDPI.

Associate in Science Notes

1. **Additional General Education Hours - An additional 11 SHC of courses should be selected from courses classified as general education within the Comprehensive Articulation Agreement (CAA). Students should select these courses based on their intended major and transfer university and availability of courses in the AS at their local college.

2. *** The following course is required: ACA 122 College Transfer Success (1 SHC). An additional 14 SHC of courses should be selected from courses classified as pre-major, elective or general education courses within the Comprehensive Articulation Agreement. Students should select these courses based on their intended major and transfer university. It is recommended that ACA 122 not be taken in the first two years of study. Students need time to explore their career path and select two or more possible universities they are interested in before taking ACA 122.

   For more information on the Associate in Science Degree: http://www.nccommunitycolleges.edu/sites/default/files/academic-programs/curriculum-standards/attachments/associate_in_science_02_2014.pdf

Proposed
Cooperative Innovative High School Curriculum Template
Associate in Arts

High School	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4	Fall 5	Spring 5
English (4 credits)		Honors English I	Honors English II		Honors English III [4]		Honors English IV[4]			
Mathematics (4 credits)	Elective Foundations of Math I	Math I	Honors Math II	Honors Math III	Math IV[4]					
Science (3 credits)	Honors Earth & Environmental		Biology A[4]	Biology B[4]			Physics or Chem A[4]	Physics or Chem B[4]		
Social Studies (4 credits)	Honors Civics and Econ	World History[4]			American History I[4]	American History II[4]				
Health and Physical Education (1credit)	Health & PE									
Other (6 credits)			Elective	Elective	ACT Prep	Elective	World Language I, WorkKeys Prep	World Language II	Internship/WBL/Senior Seminar- 2 credit	Internship/WBL/Senior Seminar- 2 credit

College	Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4	Fall 5	Spring 5
English Composition (6 sh)				ENG 111 (3)	ENG112 (3)					
Humanities/Fine Arts (9 sh from two different disciplines)								ART 111, MUS 110, or COM 231 (3), & ENG 231 (3)	ENG 241 (3)	
Social/Behavioral Sciences (9)						SOC 210 or ECO 251 or ECO 252	SOC 210 or ECO 251 or ECO 252		PSY 150 (3)	

						or POL 120 (3)	or POL 120 (3)			
Mathematics (3-4sh)					MAT 171 (4)					
Natural Sciences (4 sh)			BIO 111 (4)							
*Additional General Education Hours (13-14 shc)** *		CIS 110 (3)				MAT 172 (4)	HIS 131 (3)	HIS 132 (3)		
*Other Required Hours (15 shc)*** *				BIO 112³ (4)	CHEM 151 (4)	CHEM 152 (4)				ACA 122 (1), & College Elective (3)
Total High School: ____ Total College: 60-61	HS- 4 CC- 0 Classes- 4	HS -3 CC-3 Classes- 4	HS- 4 CC- 4 Classes- 4	HS- 3 CC- 7 Classes- 4	HS- 4 CC- 11 Classes- 4	HS- 2 CC- 11 Classes- 4	HS-4 CC- 6 Classes- 4	HS- 2 CC- 9 Classes-4	HS- 2 CC- 6 Classes- 4	HS- 2 CC- 4 Classes- 4

GRAND TOTAL: HS-30   CC- 61 shc

Associate in Arts Notes

1. ** **Additional General Education Hours** - An additional 13-14 SHC of courses should be selected from courses classified as general education within the Comprehensive Articulation Agreement (CAA). Students should select these courses based on their intended major and transfer university and availability of courses in the AA at their local college.

2. *** The following course is required: ACA 122 College Transfer Success (1 SHC). An additional 14 SHC of courses should be selected from courses classified as pre-major, elective or general education courses within the Comprehensive Articulation Agreement (CAA). Students should select these courses based on their intended major and transfer university. It is recommended that ACA 122 not be taken in the first two years of study. Students need time to explore their career path and select two or more possible universities they are interested in before taking ACA 122.
3. Students in this pathway will be cross enrolled in the AS in order to take advantage of dual credit options.
4. Wherever possible, MCS will articulate high school credit for earned college credit according to the approved Dual Enrollment Memo from NCDPI.

   For more information on the Associate in Arts Degree: http://www.nccommunitycolleges.edu/sites/default/files/academic-programs/curriculum-standards/attachments/associate_in_arts_02_2014vs2.pdf

http://www.montgomery.edu/courses106.html

CAREER PATHWAYS

What is a career pathway? A career pathway is a broad field of study that leads to further education and a career. Courses of study in each pathway prepare students for direct job entry, entrance into a two-year college or technical program, or entrance into a four-year college.
Why choose a career pathway? Career pathways help you to plan and prepare for life after high school. Career pathways encourage you to take rigorous courses and help you relate your class work to the real world.
Who chooses a career pathway? Any student may choose a career pathway.

The Career Pathways available are listed along with descriptions of each pathway. A possible combination of classes leading to completion of a specific pathway is included as well. Those courses denoted with an asterisk are advanced level classes.

Agricultural & Natural Resources Technologies
The Agricultural and Resources Pathway encompasses various elements of the food, fiber, and natural resource systems. Employment is broadly defined to include careers that require agricultural knowledge, skills, and aptitudes needed in producing, managing, processing, marketing, distributing, regulating, or protecting any of the renewable resources. Samples of the careers in this cluster are: agricultural sales, hydrographer, soil conservationist, forester, equipment operator, park ranger, florist, turf manager, and chemical applicator.

Business, Finance and Information Technology
Business, Finance, and Information Technology Education prepares students for successful transition from school to work and postsecondary education. It empowers them to use business principles and concepts while they manage their current and future responsibilities as informed consumers and productive workers in the 21stcentury. Business, Finance, and Information Technology Education is a broad, comprehensive curriculum at the middle and high school levels that provides students with meaningful instruction for and about business, finance, and information technology. Business, Finance, and Information Technology Education plays a major role in preparing a competent, business literate, and skilled workforce. The program area is designed to integrate business, finance, and information technology skills into the middle and high school curriculum.

Health Sciences
The Health Sciences Pathway seeks to meet present and predicted needs for health care workers within a health care delivery system that is characterized by diversity and changing technologies. It is a program that recruits qualified and motivated students and prepares them for pursuit of appropriate health careers. Allied Health Sciences careers include audiologist, dental hygienist, dentist, emergency medical technician, medical assistant, medical records, nursing assistant, occupational therapist, pharmacist, physical therapist, physician, surgical technician, radiology technologist, and speech and language pathologist.

Family and Consumer Sciences
Family and Consumer Sciences Education empowers individuals and families across the life span to manage the challenges of living and working in a diverse global society. The unique focus is on families, work, and their interrelationships. The mission of Family and Consumer Sciences Education is to prepare students for family life, work life, and careers in Family and Consumer Sciences by providing opportunities to develop the knowledge, skills, attitudes, and behaviors needed.

Technology, Engineering and Design
The Technology Engineering and Design program is designed to provide middle and high school students essential and enduring 21st century skills. Technology Engineering and Design is a STEM (Science,

Technology, Engineering, and Math) program that uses the arts, engineering, languages, technologies, AND sciences to understand, communicate, and design.

Trade and Industrial

Trade and Industrial Education is a secondary education program to prepare students for careers in eight of the 16 Career Clusters™. While completing course sequences in these Career Clusters™, students participate in instructional units that educate them in standardized industry processes related to concepts, layout, design, materials, production, assembly, quality control, maintenance, troubleshooting, construction, repair, and service of industrial, commercial, and residential goods and products. Where applicable, courses are aligned to industry certifications and/or credentials allowing students the opportunity to prepare for the associated specific certification/credential. Development of 21st century skills including collaboration, critical thinking, entrepreneurial skills, and problem solving is a part of each of the career pathways. Trade and Industrial Education provides students the opportunity to advance in a wide range of trade and industrial occupations. They are prepared for initial employment, further education at the community college or university level, and/or business ownership. A balanced program of classroom study and practical work experiences produces competent workers who can manage resources, work cooperatively, organize and use information, understand complex systems, and apply appropriate technology. Work-based learning strategies including apprenticeship, cooperative education, mentorship, school-based enterprise, service learning, and job shadowing are available through the Trade and Industrial Education program.

Public Service Technologies

This pathway prepares students for careers working with individuals and families, as well as for competence in the work of their own families. Some of the careers in this cluster are: chef, daycare operator/owner, dietician, childcare worker, fashion designer, and restaurant manager.

Any student who chooses the **Career Preparation course** of study may select four credits from the **Arts Discipline** or **JROTC** in lieu of four credits in the career/technical pathway. The four courses in the Arts Discipline must be in the same visual/performing arts area and one of the courses in the Arts Discipline/JROTC discipline must be an advanced course.

ARTICULATION TO COMMUNITY COLLEGE

A statewide articulation agreement between the North Carolina Department of Public Instruction and the North Carolina Community College System allows students the opportunity to receive college credit after completion of identified Career and Technical Education (CTE) courses in high school. This creates a systematic and seamless process in which students can move from high school to community college without having to duplicate efforts or repeat courses. Criteria for awarding college credit for identified CTE courses are:
A final grade of "B" or higher in the course, a score of 93 or higher on the standardized CTE post-assessment, and enrollment at the community college within two years.

See your guidance counselor for more information!

Arts Discipline

- Visual Art I, Visual Art II, Visual Art III, Visual Art IV *, Graphic/Commercial Design
- Fall Band, Concert Band *, Special Interest Music, Chorus I, Chorus II/Ensemble *
- Dance I ,Dance II, Dance III, Dance IV *
- Aerospace Science I, Aerospace Science II, Aerospace Science III, Aerospace Science IV *

As noted in the following tables from NC Labor and Economic Analysis, the regional "Star Jobs" by level of education align with the Career Pathways designated for the new consolidated high school and/or early college.

SANDHILLS Top 15 Star Jobs

Top careers with high wages and employment growth by education requirements

Advanced Degree	OES Hourly Wage¹	Annual Openings⁺⁺
★ Pharmacists	$63.32	29
★ Physician Assistants	$44.87	27
★ Physical Therapists	$40.30	24
★ Speech-Language Pathologists	$28.70	17
★ Family & General Practitioners	$85.14	16
★ Occupational Therapists	$31.10	15
★ Nurse Practitioners	$44.80	13
★ Dentists, General	$93.59	13
★ Education Administrators, Postsecondary	$35.16	10
★ Nursing Instructors & Teachers, Postsecondary	$60,120ⁱⁱ	8
★ Lawyers	$41.31	14
★ Mental Health Counselors	$20.51	13
★ Healthcare Social Workers	$21.44	13
★ Veterinarians	$42.62	8
★ Business Teachers, Postsecondary	$69,121ⁱᵛ	7

¹All wage information is from the Occupational Employment Statistics (OES) program of the Bureau of Labor Statistics. The OES program produces employment and wage estimates annually for more than 800 occupations for the U.S., individual states, and metropolitan and nonmetropolitan areas; national occupational estimates for specific industries are also available.

i. 2015 Statewide Median Hourly Wage   iii. 2015 Statewide Median Annual Wage

ii. 2014 National Median Hourly Wage   iv. 2015 Regional Median Annual Wage

⁺⁺ Total Average Annual Openings include the total number of jobs available due to growth and replacement needs per year.

Note: Selected occupations for each education/experience category are based on the Star Jobs Methodology. Education categories in this brochure represent the minimum level of education required for entry according to the Bureau of Labor Statistics. Actual market conditions may require additional education and training.

What are Star Jobs?

North Carolina's 5-Star Jobs represent occupations with the greatest projected employment potential through 2022. Occupations were rated from 1-5 stars based on wages, projected growth rates, and projected job openings. For a complete list of Star Jobs, additional information about each career, and explanation of the rating process, visit www.nccommerce.com/lead/data-tools/star-jobs

NC
Labor & Economic Analysis
COMMERCE

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SANDHILLS
STAR JOBS
TOP 15 BY EDUCATION

NC
Nothing Compares
NORTH CAROLINA

SANDHILLS Top 15 Star Jobs

Top careers with high wages and employment growth by education requirements

High School & Work Experience

	OES Hourly Wage*	Annual Openings**
First-Line Supervisors of Office & Admin. Support Workers	$21.08	114
First-Line Supervisors of Const. Trades & Extraction Workers	$23.82	40
Secretaries & Admin. Assistants, *Except Legal, Medical & Executive*	$14.11	149
Social & Human Service Assistants	$14.03	54
First-Line Supervisors of Mechanics, Installers & Repairers	$27.32	46
Medical Secretaries	$13.52	45
Electricians	$18.08	29
Operating Engineers & Other Constr. Equipment Operators	$16.21	28
Self-Enrichment Education Teachers	$12.76	26
Insurance Sales Agents	$18.74	25
Plumbers, Pipefitters & Steamfitters	$17.69	20
First-Line Supervisors of Police & Detectives	$28.43	15
Electrical Power-Line Installers & Repairers	$25.40	12
Crane & Tower Operators	$21.46[i]	8
Substance Abuse & Behavioral Disorder Counselors	$18.20	6

Postsecondary Training

	OES Hourly Wage*	Annual Openings**
Licensed Practical & Licensed Vocational Nurses	$19.81	125
Computer User Support Specialists	$20.92	28
Emergency Medical Technicians & Paramedics	$14.05	56
Heating, A/C & Refrigeration Mechanics & Installers	$17.88	41
Dental Assistants	$17.75	31
Medical Records & Health Information Technicians	$14.31	22
Telecom. Equipment Installers & Repairers, *Except Line Installers*	$22.46	15
Surgical Technologists	$19.09	10
Nursing Assistants	$10.04	316
Heavy & Tractor-Trailer Truck Drivers	$15.98	89
Medical Assistants	$12.63	48
Firefighters	$14.09	37
Library Technicians	$14.46	19
Phlebotomists	$12.29	15
First-Line Supervisors of Fire Fighting & Prevention Workers	$26.78	9

Associate Degree

	OES Hourly Wage*	Annual Openings**
Registered Nurses	$27.84	267
Dental Hygienists	$31.68	22
Computer Network Support Specialists	$26.85	13
Physical Therapist Assistants	$26.13	13
Diagnostic Medical Sonographers	$30.94	11
Occupational Therapy Assistants	$24.60	10
Radiologic Technologists	$23.93	20
Medical & Clinical Laboratory Technicians	$17.90	17
Paralegals & Legal Assistants	$17.25	15
Respiratory Therapists	$23.84	11
Cardiovascular Technologists & Technicians	$26.51	4
Web Developers	$24.03	4
Magnetic Resonance Imaging Technologists	$29.96	3
Nuclear Medicine Technologists	$30.87[i]	3
Radiation Therapists	$34.89	2

Bachelor's Degree

	OES Hourly Wage*	Annual Openings**
General & Operations Managers	$47.93	98
Interpreters & Translators	$20.96[ii]	61
Accountants & Auditors	$29.68	59
Medical & Health Services Managers	$42.06	28
Public Relations Specialists	$24.97	23
Training & Development Specialists	$31.45	21
Logisticians	$37.88	18
Cost Estimators	$23.54	17
Financial Managers	$48.32	16
Social & Community Service Managers	$26.09	15
Network & Computer Systems Administrators	$33.17	14
Software Developers, Applications	$41.92	12
Market Research Analysts & Marketing Specialists	$26.13	12
Marketing Managers	$53.95	8
Computer Systems Analysts	$35.62	7

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Course Offerings and Descriptions

AIR FORCE JROTC

Summary of Proposed Changes:

This is the current AFJROTC pathway being offered. There is no proposed change in this path.

Proposed Offerings for Consolidated School

95012X0R1   Aerospace Science I (AS-I) ROTC – Journey into Aviation History
Prerequisite: None
This is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations, then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history. It is interspersed with concise overviews of the principles of flight to include basis aeronautics, aircraft motion and control, flight power, and rockets. Throughout the course, there are readings, videos, hands-on activities, and in-text and student workbook exercises to guide in the reinforcement of the materials. Additionally, the Leadership Education portion contains sections on cadet and Air Force organizational structure; uniform wear; customs, courtesies, and other military traditions; along with health and wellness; fitness; individual self-control; and citizenship.

95022X0R2   Aerospace Science II (AS-II) ROTC – The Science of Flight
Prerequisite: ROTC I
This is a science course designed to acquaint the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. This course begins with a discussion of the atmosphere and weather. After developing an understanding of the environment, how that environment affects flight is introduced. Discussions include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects of wind. The portion on the Human Requirements of Flight is a survey course on human physiology. Discussed here are the circulatory system, the effects of acceleration and deceleration, and protective equipment. The Leadership Education portion stresses communications skills and cadet corps activities. Much information provided is on understanding groups and teams, preparing for leadership, solving conflicts and problems, and personal development. Written reports and speeches compliment the academic materials. Additionally, health and wellness, fitness, and individual self-control are continued to be developed throughout the entire curriculum.

95032X0R3   Aerospace Science III (AS-III) ROTC –   Global and Cultural Studies
Prerequisite: ROTC II
This is a multidisciplinary course that introduces students to various regions of the world from geographic, historical and cultural perspective. The course provides increased international awareness and insight into foreign affairs that permits a more educated understanding of other cultures and enhanced knowledge of American's interests and role in the world. Geopolitical issues such as terrorism, economics, politics, military issues, religion, environmental concerns, human rights, disease, over-population, literacy, the migration of peoples and other cultural issues will be examined. The regional areas included in this course are Europe, the Middle East, South Asia, East Asia, and Latin America. The lessons include excellent videos to provide a window into life and issues with the regions, followed by a variety of hands-on activities created to engage the student. Readings are also available to set the stage for each lesson, along with workbook exercises suitable for in-class or homework assignments. The Leadership Education component is designed to prepare students for life after high school in the high-tech, globally oriented, and diverse workplace of the 21st century. Students will learn how to become a more confident financial planner and to save, invest, and spend money wisely, as well as how to avoid the credit trap. They will learn about real-life issues such as understanding contracts, leases, warranties, legal notices, personal bills, practical and money-saving strategies for grocery shopping, apartment selection, and life with roommates. Additionally, health and wellness, fitness, and individual self-control are continued to be developed throughout the entire curriculum.

95042X0R4   Aerospace Science IV (AS-IV) ROTC – The Exploration of Space
Prerequisite: ROTC III
The Exploration of Space examines the earth, the moon, and the planets; the latest advances in space technology; and continuing challenges of space and manned spaceflight. Issues that are critical to travel in the upper atmosphere such as orbits and trajectories, unmanned satellites, space probes, guidance and control systems are explained. The manned spaceflight section covers major milestones in the endeavor to land on the moon and to safely orbit humans and crafts in space for temporary and prolonged periods. It also covers the development of space stations, the Space Shuttle and its future, and international laws for the use of and travel in space. The Leadership Education component provides exposure to the fundamentals of management. The text contains many leadership topics that will benefit students as well as provide them with some of the necessary skills needed to put into practice what they have learned during their time in AFJROTC. Additionally, health and wellness, fitness, and individual self-control are continued to be developed throughout the entire curriculum.

95052X0R5   Aerospace Science V (AS-5) ROTC – Corps Management
Prerequisite: ROTC IV
Upper class cadets manage the entire corps under AFJROTC instructor supervision. This course is an AS option and practicum for those cadets to provide hands-on experience for the opportunity to put the theories of previous leadership courses into practice. All the planning, organizing, coordinating, directing, controlling, and decision-making will be done by the cadets under the supervision of AFJROTC instructors. They practice communication, decision-making, personal-interaction, managerial, and organizational skills. Additionally, health and wellness, fitness, and individual self-control are continued to be developed throughout the entire curriculum.

95065R6   Aerospace Science VI (AS-6) ROTC
Prerequisite: ROTC V
This course is primarily a "self-esteem" seminar for students who have successfully completed the first three years of AFJROTC. Using the tape series "Unlocking Your Potential", cadets focus on increasing their awareness of their true capabilities in life. Military customs, courtesies, and drill procedures will be demonstrated by each student. After SASI/ASI recommendation, the school principal will make the final selection of the participants for this course. Additionally, health and wellness, fitness, and individual self-control are continued to be developed throughout the entire curriculum.

Additional offerings:
95045R7, 95045R8, 95045R9, 95045R10

CAREER AND TECHNICAL EDUCATION

The mission of Career-Technical Education (CTE) is to help empower students for effective participation in an international economy as world-class workers and citizens. Programs in Career-Technical Education are designed to contribute to the broad educational achievement of students, as well as their ability to work independently and as part of a team, think creatively, solve problems and utilize technology.
Career- Technical Education fulfills this mission by:

- *Assisting students in making educational and career decisions.*
- *Applying and reinforcing related learning from other disciplines.*
- *Assisting students in developing decision-making, communication, problem-solving, leadership and citizenship skills.*
- *Preparing students to make informed consumer decisions and apply practical life skills.*
- *Preparing students for post-secondary education in career-technical fields and lifelong learning.*
- *Preparing students for initial and continued employment.*

Work-based learning opportunities are available to students enrolled in CTE courses. There opportunities are provided as follows: apprenticeships; cooperative education (Co-op); internships; job shadowing; or school-based enterprises. Work-based learning strategies allow schools to go beyond the classroom and into the community to develop student competence.

CTE student organizations (many of which have state and national affiliations) are to encourage, enhance and reinforce instruction.

Those available are: Future Business Leaders of America (FBLA); Family, Career, Community Leaders of America (FCCLA); DECA – An Association of Marketing Students; Technology Student Association (TSA); and SkillsUSA.

Overview of Proposed CTE Pathways

Business, Finance & Information Technology	Health Sciences	T&I Manufacturing
Principles of Business and Finance	HU40 Health Science I	Cabinetmaking I,II,III
Accounting I, II	HU42* Health Science II *	CTE Advanced Studies
Microsoft Word, PowerPoint, Publisher	HN43 Nursing Fundamentals (2 credits)	CTE Internship
Multimedia and Webpage Design*	Biomedical Technology I,II	CTE Apprenticeship
Computer Programming I, II	Personal Finance	Career & College Promise
Entrepreneurship I, II	Pharmacy Tech	
AP Computer Science	CTE Advanced Studies	**T&I Law & Public Safety**
Career Management	CTE Internship	Public Safety I
Personal Finance	CTE Apprenticeship	Fire Fighter Technology I, II, III
CTE Apprenticeship	Career and College Promise	Possible EMT and Law Enforcement
CTE Internship		Fire Fighter Technology III
Career and College Promise		CTE Advanced Studies
		CTE Internship
Agriculture		CTE Apprenticeship
Agriscience Applications		Career and College Promise
Biotechnology & Agriscience Research I, II		
Agriculture Production I.II	**T&I Transport Systems Tech**	
Horticulture I,II	Intro to Automotive Service	**T&I Architecture & Construction**
Agricultural Mechanics I, II	Automotive Service I	Masonry I, II, III
Environmental & Natural Resources I, II	Automotive Service II*	Core and Sustainable Construction
CTE Advanced Studies	Automotive Service III	Carpentry I,II,III
CTE Apprenticeship	CTE Advanced Studies	Drafting I,II,III
CTE Internship	CTE Internship	CTE Advanced Studies
Career and College Promise	CTE Apprenticeship	CTE Internship
	Career & College Promise	CTE Apprenticeship
		Career & College Promise
Hospitality and Tourism	**Technology, Engineering & Design**	
Culinary Arts & Hospitality I, II	AP Computer Science	
Personal Finance	Computer Programming I, II	
CTE Advanced Studies	PLTW Intor to Engineering	
CTE Internship	PLTW Principles of Engineering and Arch	
CTE Apprenticeship	PLTW Civil Engineering	
Career and College Promise	PLTW Computer Integrated Manuf.	
	CTE Advanced Studies	
	CTE Internship	
	CTE Apprenticeship	
	Career and College Promise	

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AGRICULTURAL EDUCATION

Summary of Proposed Changes:
Agriculture Education will migrate its course sections from being primarily animal science based to horticulture, environmental and natural resources, agriculture production and mechanics, and bio-tech and agriscience research. As noted in the following chart, the number of Ag related jobs in the region and across the state is declining. However, it is our intention to retool the Agricultural Education programs to be more rigorous and relevant to the skills needed to join this ever-changing field.
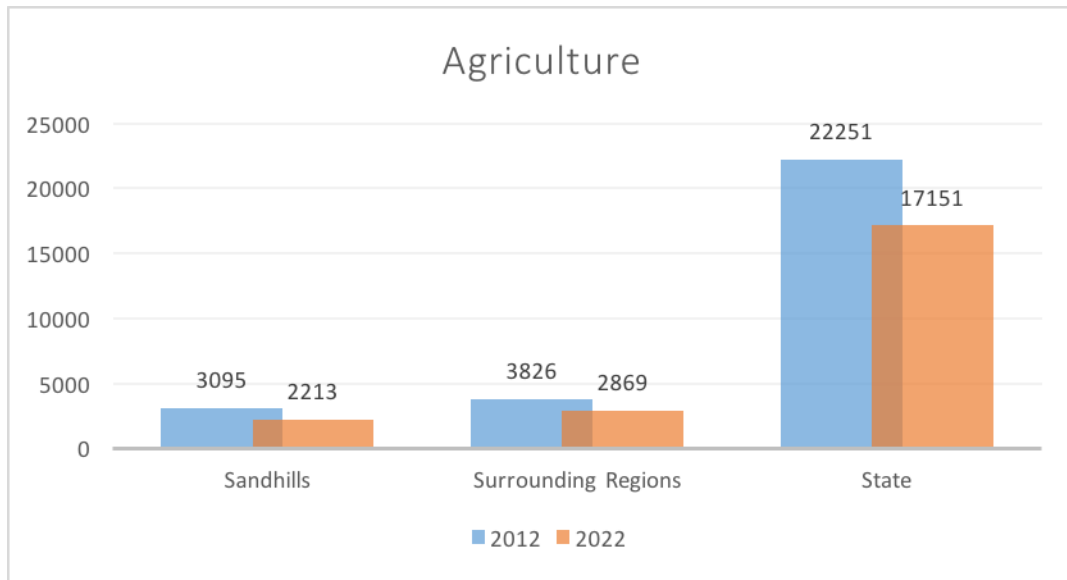
Data from NCCareers.org

Proposed Offerings for Consolidated School

AU100X0   Agriscience Applications
 Hours of Instruction: 135 (block)   **Prerequisite:** None
This course focuses on integrating biological/physical sciences with technology as related to the environment, natural resources, food production, science, and agribusiness. Topics of instruction include agricultural awareness and literacy, employability skills and introduction to all aspects of the total agricultural industry. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW-AU71X0 Biotechnology & Agriscience Research I
Recommended Maximum Enrollment: 25 Hours of Instruction: 135 (block)
Prerequisite: None
This course provides instruction in the technologically advanced world of agriculture and life sciences. Students are exposed to the latest techniques and advances in plant and animal biotechnology with a strong emphasis on hands-on activities. English language arts, mathematics,

and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Agriscience Applications is recommended as preparation for this course.

NEW-AU72X0 Biotechnology & Agriscience Research II
Recommended Maximum Enrollment: 25 **Hours of Instruction**: 135 (block)
Prerequisite: AU71 Biotechnology & Agriscience Research I
This course provides instruction in laboratory and safety skills needed by agricultural research scientists. Current applications of biotechnology in animal science, environmental science, food science and plant science are emphasized. Basic concepts of genetics and microbiology are applied to the agriculture industry and its success in providing food and fiber for the world. Opportunities exist for students to conduct individual or team research experiments. Hands-on laboratories and current topic discussions provide students an understanding of careers in agriscience research. English language arts, mathematics, and science are reinforced. Workbased learning strategies appropriate for this course are apprenticeship, cooperative education, internship, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- AU112X0Agricultural Production I Course Number:
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: None
This course focuses on the basic scientific principles and processes related to the production of plants and animals for the food and fiber systems. Topics of instruction include basic understanding of the livestock/poultry industry and its various components, career opportunities, soil science, crop science/agronomy, weed science, basic agricultural machinery and related industry careers, environmental stewardship, and leadership/personal development. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, internship, mentorship, school-based enterprise, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- AU122X0 Agricultural Production II
Recommended Maximum Enrollment: 20* **Hours of Instruction**: 135 (block)
Prerequisite: AU11 Agricultural Production I
This course provides scientific knowledge and technical skills with heavy emphasis on topics including pesticide use and safety, herbicide use and safety, wildlife habitat concerns, irrigation, agricultural equipment technology and safety, global industry issues, career planning, and human resource development. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- AP412X0 Horticulture I
Recommended Maximum Enrollment: 25 **Hours of Instruction**: 135 (block)
Prerequisite: None
This course provides instruction on the broad field of horticulture with emphasis on the scientific and technical knowledge for a career in horticulture. Topics in this course include plant growth and development, plant nutrition, media selection, basic plant identification, pest management, chemical disposal, customer relations, and career opportunities. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, internship, mentorship, school-based enterprise, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW AP422X0 Horticulture II
Recommended Maximum Enrollment: 25 **Hours of Instruction**: 135 (block)
Prerequisite: AP41 (6841) Horticulture I
This course covers instruction that expands scientific knowledge and skills to include more advanced scientific computations and communication skills needed in the horticulture industry. Topics include greenhouse plant production and management, bedding plant production, watering systems, light effects, basic landscape design, installation and maintenance, lawn and turfgrass management, and personal development. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW AN512X0 Environmental & Natural Resources I
Recommended Maximum Enrollment: 25 **Hours of Instruction**: 135 (block)
Prerequisite: None
This course provides an introduction to environmental studies, which includes topics of instruction in renewable and non-renewable natural resources, history of the environment, personal development, water and air quality, waste management, land use regulations, soils, meteorology, fisheries, forestry, and wildlife habitat. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW AN522X0 Environmental & Natural Resources II
Recommended Maximum Enrollment: 25 **Hours of Instruction**: 135 (block)
Prerequisite: AN51 Environmental & Natural Resources I
This course covers instruction in best management practices in methods of environmental monitoring and conservation, air and water regulations, sampling methodologies, prescribing conservation techniques, and wildlife and forestry management. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, entrepreneurship, internship, mentorship,

school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

AS312X0   Agricultural Mechanics I
Hours of Instruction: 135 (block)   **Prerequisite:** None
This course develops knowledge and technical skills in the broad field of agricultural machinery, equipment, and structures. The primary purpose of this course is to prepare students to handle the day-to-day problems and repair needs they will encounter in their chosen agricultural career. Topics include agricultural mechanics safety, agricultural engineering career opportunities, hand/power tool use and selection, electrical wiring, basic metal working, basic agricultural construction skills related to plumbing, concrete, carpentry, basic welding, and leadership development. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, mentorship, school-based enterprise, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

AS322X0   Agricultural Mechanics II
Hours of Instruction: 135 (block)   **Prerequisite:** 6831 Agricultural Mechanics I
In this course, the topics of instruction emphasized are non-metallic agricultural fabrication techniques, metal fabrication technology, safe tool and equipment use, human resource development, hot/cold metal working skills and technology, advanced welding and metal cutting skills, working with plastics, and advanced career exploration/decision making. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

CS95X0AE   CTE Advanced Studies- Ag Education
Hours of Instruction: 135 (block)   **Prerequisite:** Two technical credits in one Career Cluster
This culminating course is for juniors and seniors who have earned two technical credits, one of which is a completer course, in one Career Cluster. The Advanced Studies course must augment the content of the completer course and prepare students for success in transitioning to postsecondary education and future careers. Students work under the guidance of a teacher with expertise in the content of the completer course in collaboration with community members, business representatives, and other school-based personnel. The four parts of the course include writing a research paper, producing a product, developing a portfolio, and delivering a presentation. Students demonstrate their abilities to use 21st century skills. DECA (an association for Marketing Education students), Future Business Leaders of America (FBLA), FFA, Family, Career and Community Leaders of America (FCCLA), Health Occupations Students of America (HOSA), SkillsUSA, and Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Offerings to be discontinued:

AA212X0   Animal Science I
Hours of Instruction: 135 (block)   **Prerequisite:** None

This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal science career major. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities, and animal evaluation. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

AA222X0   Animal Science II
Hours of Instruction: 135 (block)   **Prerequisite:** 6821 Animal Science I
This course includes more advanced scientific principles and communication skills and includes animal waste management, animal science economics, decision making, global concerns in the industry, genetics, and breeding. English language arts, mathematics, and science are reinforced in this class. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

**AA232X0   Animal Science II – Small Animal**
Hours of Instruction: 135 (block)   **Prerequisite:** 6821 Animal Science I
This course provides instruction on animal science topics related to small animals that are served by a veterinarian. Content related to the breeding, grooming, care and marketing of animals that fit into this category are taught in this course. English language arts, mathematics, and science are reinforced in this class. Work-based learning strategies appropriate for this course are apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, job shadowing, and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

BUSINESS, FINANCE, AND INFORMATION TECHNOLOGY EDUCATION (BFIT)

Summary of Proposed Changes:
BFIT offerings will expand to include AP Computer Science, Computer Programming, and Entrepreneurship. The labor market data in noted in below indicates an increase in BFIT related jobs in our region and across the state. It will be critical for MCS to implement programs within this cluster which closely matches the labor market. Atop the list of fastest growing jobs is accountants, auditors, finance managers, general managers, and IT professionals such as computer systems administrators.
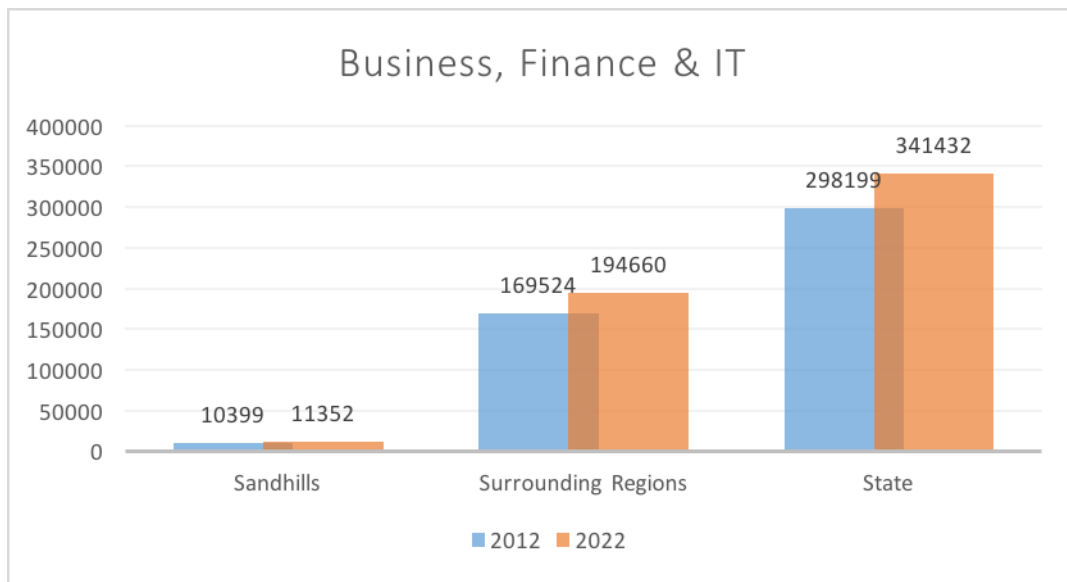
Data from NCCareers.org

Proposed Offerings for Consolidated School

NEW- 25217X0-AP Computer Science
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: None
This is a college-level introductory course in computer science. Because the design and implementation of computer programs to solve problems involve skills that are fundamental to the study of computer science, a large part of the course is built around the development of computer programs that correctly solve a given problem. These programs should be understandable, adaptable, and when appropriate, reusable. At the same time, the design and implementation of computer programs is used as a context for introducing other important aspects of computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, the study of standard algorithms and typical applications, and the use of logic and formal methods. In addition, the responsible use of these systems is an integral part of the course. The course is designed to be the equivalent of a first-semester college course in computer science. Mathematics is reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the

opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW-BP102X0 Computer Programming I
Recommended Maximum Enrollment: 20 **Hours of Instruction:** 135 (block)
Prerequisite: None
This course is designed to introduce the concepts of programming, application development, and writing software solutions in the Visual Studio environment. Emphasis is placed on the software development process, principles of user interface design, and the writing of a complete Visual Basic program including obtaining and validating user input, logical decision making and processing, graphics, and useful output. Mathematics is reinforced. Work-based learning strategies appropriate for this course include entrepreneurship, mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW-BP122X0- Computer Programming II
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: BP10 Computer Programming I
This course is designed to teach students advanced programming concepts, including class structures, multimedia programming, advanced arrays, and file structures. Students will apply course concepts through the development of XNA Game Studio computer games. Mathematics is reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW-ME112X0 Entrepreneurship I
Recommended Maximum Enrollment: 25 **Hours of Instruction:** 135 (block)
Prerequisite: MM51 Marketing OR BF05 Personal Finance OR BF10 Principles of Business and Finance
In this course students evaluate the concepts of going into business for themselves and working for or operating a small business. Emphasis is on the exploration of feasible ideas of products/services, research procedures, business financing, marketing strategies, and access to resources for starting a small business. Students develop components of a business plan and evaluate startup requirements. English language arts and social studies are reinforced. Workbased learning strategies appropriate include cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship is not available for this course. DECA (an association for Marketing Education students) and Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- ME122X0 Entrepreneurship II
Recommended Maximum Enrollment: 25 **Hours of Instruction**: 135 (block)
Prerequisite: ME11 Entrepreneurship I

In this course students develop an understanding of pertinent decisions to be made after obtaining financing to open a small business. Students acquire in-depth understanding of business regulations, risks, management, and marketing. Students develop a small-business management handbook. English language arts and social studies are reinforced. Work-based learning strategies appropriate include cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship is not available for this course. DECA (an association for Marketing Education students) and Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

CC452X0   Career Management
This course is designed to prepare students to locate, secure, keep, and change careers. Competencies for this course are based on the National Career Development Guidelines. Strategies for this course include teamwork, technology, problem-solving, decision-making, goal setting, and self-management.

BD102X0   Multimedia and Webpage Design
The course focuses on desktop publishing, graphic image design, computer animation, virtual reality, multimedia production, and webpage design. Communication skills and critical thinking are reinforced through software applications. English language arts and arts are reinforced. Work-based learning strategies appropriate for this course include cooperative education, internship, school-based enterprise, service learning, and job shadowing. Apprenticeship is not available for this course. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

CS95X0B1   CTE Advanced Studies- Business
Prerequisite : Microsoft ITA and Teacher Approval
This course is designed to enhance the student's ability to write a research paper, produce a product (assist in EMHS web page), and deliver a presentation. Students demonstrate their abilities to use content and apply knowledge to professional business situations in a selected career. In addition, they will also demonstrate their ability to write, speak, apply knowledge, problem solve, and use skills such as time management and organization.

BA102X0   Accounting I
This course is designed to help students understand the basic principles of the accounting cycle. Emphasis is placed on the analysis and recording of business transactions, preparation, and interpretation of financial statements, accounting systems, banking and payroll activities, basic types of business ownership, and an accounting career orientation. Mathematics is reinforced. Work-based learning strategies appropriate for this course include cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship is not available for this course. Future Business Leaders of America (FBLA) competitive evens, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences
Also available- **63122   Accounting II**
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BF102X0   Principles of Business and Finance

This course introduces students to topics related to business, finance, management, and marketing to cover business in the global economy, functions of business organization and management, marketing basics, and significance of business financial and risk management. English language arts, social studies, and mathematics are reinforced. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Cooperative education is not available for this course. Apprenticeship is not available for this course. DECA (an association for Marketing Education students) and Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Courses to be discontinued:

Possibly- BM102X0   Microsoft Word and PowerPoint
Students in Microsoft IT Academies benefit from world-class Microsoft curriculum and cutting-edge software tools to tackle real-world challenges in the classroom environment. The first part of the class students will learn to use the newest version of Microsoft Word interface, commands, and features to create, enhance, customize, share and create complex documents, and publish them. In the second part, students will learn to use the newest version of Microsoft PowerPoint interface, commands and features to create, enhance, customize, and deliver presentations. English language arts are reinforced. Work-based learning strategies appropriate for this course include cooperative education, internship, service learning, and job shadowing. Apprenticeship is not available for this course. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skill through authentic experiences. This course can help prepare students for the Microsoft Office Specialist (MOS) in Excel and/or Access. **Honors credit is availble for students completing the MSITA Publisher certification.**

BB302X0C   Business Law
Prerequisite: BF10 Principles of Business and Finance
This course is designed to acquaint students with the basic legal principles common to all aspects of business and personal law. Business topics include contract law, business ownership including intellectual property, financial law, and national and international laws. Personal topics include marriage and divorce law, purchasing appropriate insurance, renting and owning real estate, employment law, and consumer protection laws. Social studies and English language arts are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, internship, and job shadowing. Apprenticeship and cooperative education are not available for this course. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

FAMILY AND CONSUMER SCIENCES EDUCATION

Summary of proposed changes:
Family and Consumer Sciences will be redesigned to include a new focus on commercial and industry standard culinary practices and equipment. As noted in the labor market data, the Sandhills region projects a small increase in the number of jobs available, while the region and state show greater growth.
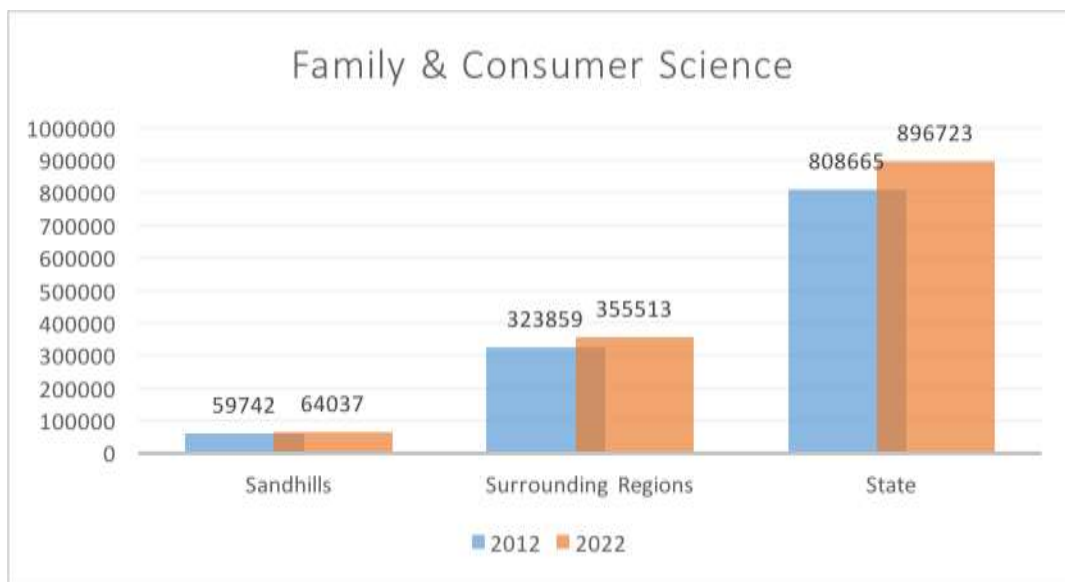
Data from NCCareers.org

Proposed Offerings for Consolidated School

NEW-FH212X0   Culinary Arts and Hospitality I
Prerequisite: FH20 Introduction to Culinary Arts and Hospitality
This course focuses on basic skills in cold and hot food production, baking and pastry, and service skills. Art, English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include service learning and job shadowing. Apprenticeship and cooperative education are not available for this course. Family, Career and Community Leaders of America (FCCLA) leadership activities provide the opportunity to apply instructional competencies and workplace readiness skills to authentic experiences.

NEW-FH222X0   Culinary Arts and Hospitality II
Prerequisite: FH21 Culinary Arts and Hospitality I
This course provides advanced experiences in cold and hot and food production, management (front and back of the house), and service skills. Topics include menu planning, business management, and guest relations. Art, English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning and job shadowing. Family, Career and Community leaders of America (FCCLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

BF052X0   Personal Finance

This course prepares students to understand economic activities and challenges of individuals and families, the role of lifestyle goals in education and career choices, procedures in a successful job search, financial forms used in independent living, and shopping options and practices for meeting consumer needs. The course also prepares students to understand consumer rights, responsibilities, and information, protect personal and family resources, and apply procedures for managing personal finances. English language arts and mathematics are reinforced. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Future Business Leaders of America (FBLA) and Family, Career, and Community Leaders of America (FCCLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

CS952X0FC   CTE Advanced Studies- Family and Consumer Science
Prerequisites: Three Family and Consumer Science/Technical Credits
This is an advanced course following the Family and Consumer Science Pathway. The three parts of the course include a research paper, a product, and a presentation. Topics include apparel design, community and family services, culinary arts and hospitality, early childhood education, food science, dietetics, and nutrition, or interior design career area. Skill development and FCCLA leadership activities provide the opportunities to apply instructional competencies and workplace readiness skills to authentic experiences.

Courses to be discontinued:

FN412X0   Foods I
This course examines nutritional needs of the individual. Emphasis is placed on the relationship of diet to health, kitchen and meal management, food preparation and sustainability for a global society, and time and resource management. English language arts, mathematics, science, and social studies are reinforced. Work-based learning strategies appropriate for this course service learning and job shadowing. Apprenticeship and cooperative education are not available for this course. Family, Career, and Community Leaders of America (FCCLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

FN422X0   Foods II – Advanced
Prerequisites: Foods I
This course focuses on advanced food preparation techniques while applying nutrition, food science, and test kitchen concepts using new technology. Food safety and sanitation receive special emphasis, with students taking the exam for the ServSafe� credential from the National Restaurant Association. Students develop skills in preparing foods such as beverages, salads and dressing, yeast breads, and cake fillings and frostings. A real or simulated in-school food business component allows students to apply instructional strategies. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprises, job shadowing, and service learning. Family, Career and Community Leaders of America (FCCLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

HEALTH SCIENCE EDUCATION

Summary of proposed changes:
Currently both high school offer Nursing Fundamentals as the capstone course. This leads to the Certified Nursing Assistant (CNA) credential. Through a new heath science Career and College Promise Pathway at Montgomery Community College (MCC), Montgomery County Schools (MCS) can articulate the nursing course. This means that MCC will begin teaching most of the CNA courses, thus allowing MCS to expand its offerings to include Biomed Technology and Pharmacy Technician. The regional labor market data for this sector indicates strong growth over the next years.
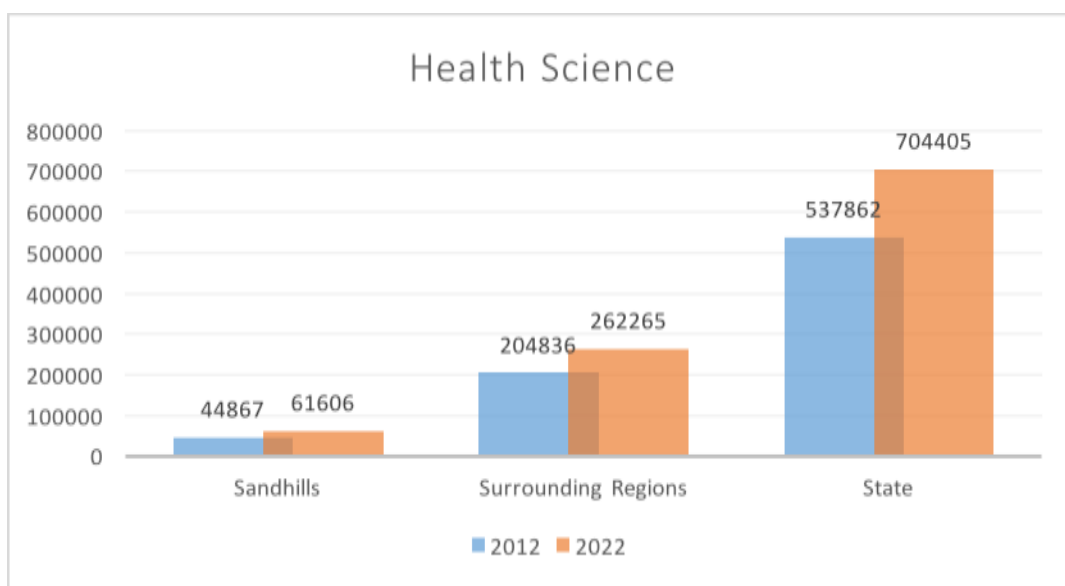
Data from NCCareers.org

Proposed Offerings for Consolidated School

NEW- HB112X0 Biomedical Technology I
Recommended Maximum Enrollment: 30 Hours of Instruction: 135 (block)
Prerequisite: None
This course challenges students to investigate current medical and health care practices using technology and advances in health care research. Topics include ethics, forensic medicine, infectious diseases, organ transplants, cell biology and cancer, and biomedical research. English language arts and science are reinforced in this course. Work-based learning strategies appropriate for this course include service learning and job shadowing. Apprenticeship and cooperative education are not available for this course. Health Occupations Students of America (HOSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- HB122X0 Biomedical Technology II
Recommended Maximum Enrollment: 25 Hours of Instruction: 135 (block)
Prerequisite: HB11 Biomedical Technology I

This course focuses on genetics, neurobiology, sleep disorder and biological rhythms, bioethics, the evolution of medicine, and use of technology to study cellular and molecular biology. The curriculum was developed by the National Institutes of Health (NIH). Students will learn about careers in biotechnology within the context of the course content. Projects, teamwork, and demonstrations serve as instructional strategies that reinforce the curriculum content. English language arts and science are reinforced in this course. Work-based learning strategies appropriate for this course include service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Health Occupations Students of America (HOSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Biology is recommended as good preparation for this course.

NEW- HH322X0 Pharmacy Technician
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block) 150
Prerequisite: HU42 Health Science II

This course has self-paced, on-line instruction designed to prepare high school seniors for a pharmacy technician career. Topics included in this course are federal law, medication used in major body systems, calculations, and pharmacy operations. Mathematics is reinforced in this course. Work-based learning strategies appropriate for this course include an apprenticeship, cooperative education, internship, or mentorship. Health Occupations Students of America (HOSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. This course is accredited by the Accreditation Council for Pharmacy Education (APCE). Upon successful completion of this course and after graduation, the student is eligible to take the Pharmacy Technician Certification Board (PTCB) exam.

HU402X0   Health Science I
This course focuses on human anatomy, physiology, and human body diseases and disorders, and biomedical therapies. Students will learn about healthcare careers within the context of human body systems. Projects, teamwork, and demonstration serve as instructional strategies that reinforce the curriculum content. English language arts and science are reinforced in this course. Work-based learning strategies appropriate for this course include service learning and job shadowing. Apprenticeship and cooperative education are not available for this course. Health Occupations Students of America (HOSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Biology is recommended as preparation for this course.

HU422X0   Health Science II
Prerequisite: Health Science I
This course is designed to help students expand their understanding of financing and trends of healthcare agencies, fundamentals of wellness, legal and ethical issues, concepts of teamwork, and effective communication. Students will learn healthcare skills, including current CPR and first aid training. English language arts and science are reinforced in this course. Work-based learning strategies appropriate for this course include internship, mentorship, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Health Occupations Students of America (HOSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Courses to be articulated through CCP:

HN432X0 Nursing Fundamentals
Prerequisite: Health Science II
This course is designed for students interested in medical careers where personal care and basic nursing skills are used. This course is an enhanced adaptation of the North Carolina Division of Health Service Regulation (DHSR) Nurse Aide I (NAI) curriculum and helps prepare students for the National Nurse Aide Association (NNAAP). Students who pass the NNAAP become listed on the NC NAI Registry. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include a required clinical internship in a long-term care agency. Healthcare agencies may require testing for tuberculosis and/or other diseases and a criminal record check for felonies related to drugs. Cooperative education is not available for this course. HOSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. (Students must provide transportation to and from Sandy Ridge in Candor and First Health Montgomery Memorial Hospital in Troy and pass a screening process to qualify for Nursing Fundamentals. Clinical times are from 7:30 am – 10:30 am daily.)   **Required materials: Uniforms, stethoscope, appropriate shoes for clinical setting, watch with second hand. See instructor for specifications.**

TECHNOLOGY, ENGINEERING AND DESIGN

Summary of proposed changes:

In addition to the new Engineering pathway at Montgomery County Early College, the offerings at the consolidated high school have been refreshed to align more with the labor market needs. This included new Engineering courses from Project Lead the Way and an additional AP Computer Science Course (which is also in the BFIT pathway). The labor market in this field shows a slight decline in the surrounding regions and an overall increase in the state. As you will note, manufacturing is grouped with the engineering career cluster, which may be the cause for the decline.
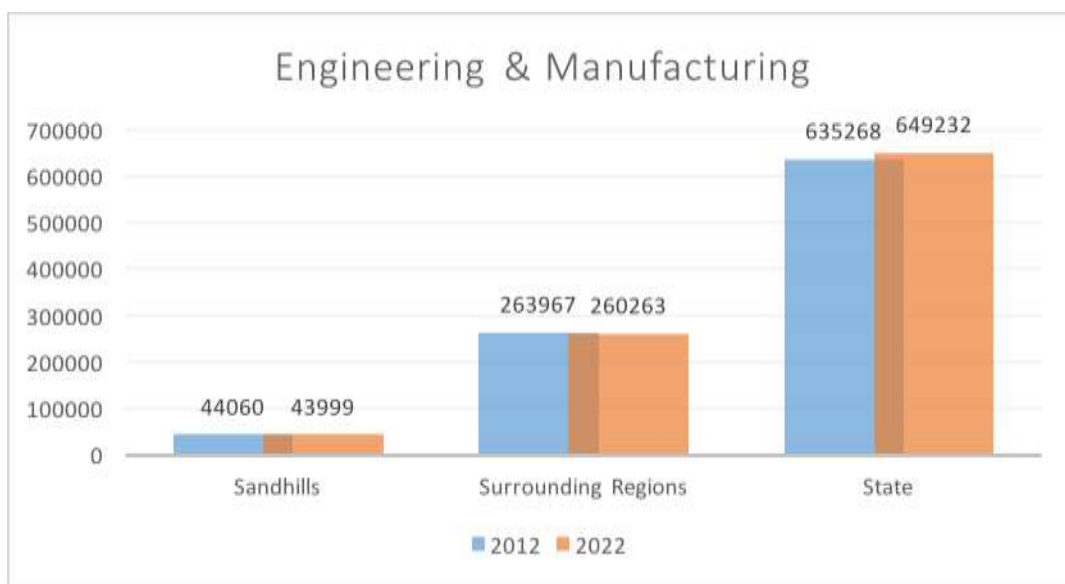
Data from NCCareers.org

Proposed Offerings for Consolidated School

NEW- TP117X0 PLTW Introduction to Engineering Design
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: None
In this foundation Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students are exposed to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document their work and communicate solutions to peers and members of the professional community. Art, English language arts, mathematics and science are reinforced. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- TP127X0 PLTW Principles of Engineering
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: None
In this foundation Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students survey engineering and are exposed to major concepts they will encounter in a postsecondary engineering course of study. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, documenting their work and communicating solutions to peers and members of the professional community. Art, English language arts, mathematics and science are reinforced. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- TP237X0 PLTW Civil Engineering and Architecture
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: Pathway to Engineering (PTE) Foundation Courses
In this specialization Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students apply what they learn about various aspects of civil engineering and architecture to the design and development of a property. Working in teams, students explore hands-on activities and projects to learn the characteristics of civil engineering and architecture. In addition, students use 3D design software to help them design solutions to solve major course projects. Students learn about documenting their project, solving problems, and communicating their solutions to their peers and members of the professional community of civil engineering and architecture. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- TP227X0 PLTW Computer Integrated Manufacturing
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: Pathway to Engineering (PTE) Foundation Courses
In this specialization Project Lead the Way (PLTW) Pathway to Engineering (PTE) course, students answer the questions: How are things made? What processes go into creating products? Is the process for making a water bottle the same as it is for a musical instrument? How do assembly lines work? How has automation changed the face of manufacturing? As students find the answers to these questions, they learn about the history of manufacturing, a sampling of manufacturing processes, robotics and automation. The course is built around several key concepts: computer modeling, Computer Numeric Control (CNC) equipment, Computer Aided Manufacturing (CAM) software, robotics, and flexible manufacturing systems. Art, English language arts, mathematics and science are reinforced. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

NEW- 25217X0-AP Computer Science
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: None
This is a college-level introductory course in computer science. Because the design and implementation of computer programs to solve problems involve skills that are fundamental to the study of computer science, a large part of the course is built around the development of computer programs that correctly solve a given problem. These programs should be understandable, adaptable, and when appropriate, reusable. At the same time, the design and implementation of computer programs is used as a context for introducing other important aspects of computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, the study of standard algorithms and typical applications, and the use of logic and formal methods. In addition, the responsible use of these systems is an integral part of the course. The course is designed to be the equivalent of a first-semester college course in computer science. Mathematics is reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, entrepreneurship, internship, mentorship, school-based enterprise, service learning, and job shadowing. Future Business Leaders of America (FBLA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Courses to be reduced or discontinued:

Scientific and Technical Visualization I
Course Number: TS212X0
Prerequisite: None
Description: This state-of -the-art course introduces students to the use of complex graphic tools. Emphasis is placed on the use of these tools to understand better technical, mathematical and/or scientific concepts. Emphasis is placed on the use of complex graphic tools to better understand a given mathematical, and/or scientific concept. Visualization activities may include graphics of mathematical models, molecular structures, topographical maps, stratospheric and climate models, and statistical analysis. Computer, communication, mathematical and scientific concepts are reinforced in this course. Job shadowing is an appropriate work-based learning strategy for this course. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Scientific and Technical Visualization II
Course Number: TS222X0
Prerequisite: Scientific and Technical Visualization I
Description: This course provides students with advanced skills in the use of complex visualization tools for the study of mathematical and/or sciences concepts. Students design and develop increasingly complex data and concept driven visualization models. Focusing on scientific and technical concepts, students learn how to communicate and analyze phenomena using statistical, graphic, and conceptual visualization computer applications. Communication, computer, technical, mathematics, and science skills are reinforced in this course. Work-based learning strategies appropriate for this course are apprenticeship, internships, and cooperative education. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Drafting I
Course Number: IC612X0
Prerequisite: None
Description: This course introduces students to the use of simple and complex graphic tools used to communicate and understand ideas and concepts found in the areas of architecture, manufacturing, engineering, science, and mathematics. Topics include problem-solving strategies, classical representation methods such as sketching, geometric construction techniques, as well as CAD (computer assisted design), orthographic projection, and 3-D modeling. Skills in communication, mathematics, science, leadership, and problem-solving are reinforced in this course. Job shadowing is an appropriate work-based learning strategy for this course. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Drafting II – Engineering
Course Number: IV222X0
Prerequisite: Drafting I
Description: This course focuses on engineering graphics introducing the student to symbol libraries, industry standards, and sectioning techniques. Topics include coordinate systems, principles of machine processes and gearing, and the construction of 3-D wireframe models using CAD. Mathematics, science, and mechanical engineering concepts involving the working principles and design of cams and gears are reinforced in this course. Work-based learning strategies appropriate for this course are apprenticeship, internships, and cooperative education. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Drafting II – Architectural
Course Number: IC622X0
Prerequisite: Drafting I
This course focuses on the principles, concepts, and use of complex graphic tools used in the field of architecture, structural systems, and construction trades. Emphasis is placed on the use of computer assisted design (CAD) tools in the creation of floor plans, wall sections, and elevation drawings. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Drafting III – Engineering
Course Number: IV232X0
Prerequisite: Drafting II-Engineering
This course introduces the student to advanced engineering concepts using computer assisted design (CAD) tools. Topics studied include descriptive geometry, geometric tolerancing, and advanced engineering design concepts such as surface and solid modeling. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Geometry is recommended as preparation for this course.

Drafting III- Architectural
Course Number: IC632X0
Prerequisite: Drafting II – Architectural

This course introduces students to advanced architectural design concepts. Emphasis is placed on the use of computer assisted design (CAD) tools in the design and execution of site and foundation plans as well as topographical information and detail drawings of stairs and wall section. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Geometry is recommended as preparation for this course.

TRADE AND INDUSTRIAL EDUCATION

Summary of Proposed Changes- Automotive

There will be no addition to the curriculum offerings for the automotive program due to NATEF and ASE regulations. However, MCS and MCC will be partnering to share this space so that a CCP pathway can be eventually developed and implemented. The regional labor market data indicates a steady increase in the Automotive Service sector as noted in the chart below.

Data from NCCareers.org

Proposed Offerings for Consolidated School

Introduction to Automotive Service
Course Number: IT112X0
Prerequisite: None
Description: This course introduces basic automotive skills and job opportunities in the auto repair industry. Topics include engine theory, automotive service preventive maintenance, brake repair, electrical systems troubleshooting, safety, test equipment, and measuring. English language arts are reinforced. Work-based learning strategies appropriate for this course include job shadowing. Apprenticeship and cooperative education are not available for this course. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Automotive Service I
Course Number: IT116X0
Prerequisite: Intro to Auto Service
Description: This course introduces basic automotive terminology, knowledge and introductory skills in safety, tools, basic servicing, maintenance and use of service information. Also, careers

and various job opportunities in the automotive repair industry will be discussed. Automotive Service Technology programs in North Carolina are National Automotive Technician Education (NATEF) certified. English language arts and mathematics are reinforced. Work-based learning strategies appropriate for this course include cooperative education and job shadowing. This course helps prepare students for the Automotive Service Excellence (ASE) certification in Maintenance and Light Repair. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Algebra I is a recommended prerequisite.
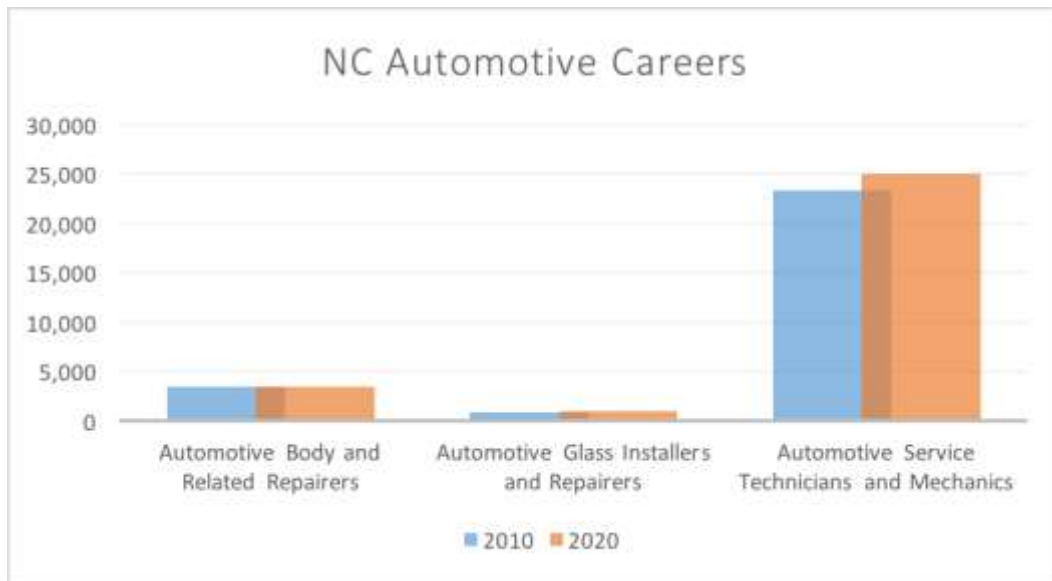
Automotive Service II*
Course Number: IT172X0
Prerequisite: Auto Service I
Description: This course develops advanced automotive skills in repair and/or replacement of vehicle components, emphasizing hands-on experiences. English language arts and mathematics are reinforced. Work-based learning strategies appropriate for this course include cooperative education and job shadowing. This course helps prepare students for the Automotive Service Excellence (ASE) certification in Maintenance and Light Repair. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. This is the completer course in the Automotive Service sequence.

Automotive Service III
Course Number: IT182X0
Prerequisite: Auto Service II
Description: This course builds advanced automotive skills and knowledge in servicing, testing, diagnosis, and repair of vehicle systems and components while emphasizing hands-on experiences. Work-based learning strategies appropriate for this course include cooperative education, entrepreneurship, internship, and job shadowing. This course helps prepare students for the Automotive Service Excellence (ASE) certification in Maintenance and Light Repair. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Summary of Proposed Changes- Construction Trades

New program offerings in construction include Core and Sustainable Construction and a carpentry sequence. These courses along with the current offerings in cabinetry and masonry, create a strong foundation for students interested in the construction trades. Having these programs on one site rather than two split programs, will allow MCS to make sections of the level III and IV of these programs. This has been a struggle with the current program design. The regional labor market data indicates a need for more construction tradesmen.

Trade & Industry

	Sandhills	Surrounding Regions	State
2012	22502	147037	339964
2022	27270	180096	423331
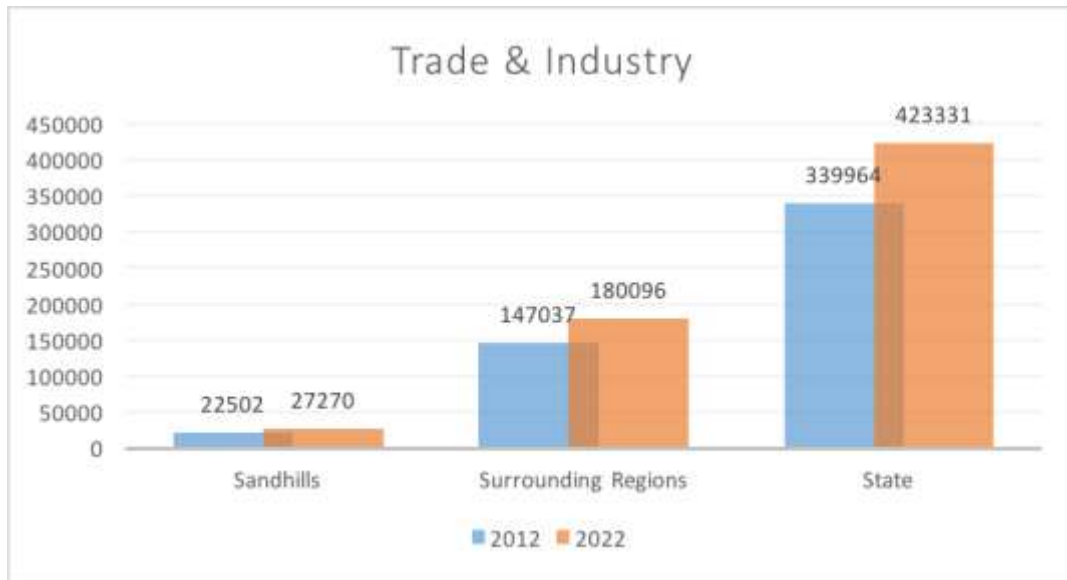
Proposed Offerings for Consolidated School

NEW- IC002X0 Core and Sustainable Construction
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: None
This course covers the National Center for Construction Education and Research (NCCER) Core certification modules required for all of the NCCER curriculum-area programs, and an additional Green module. The course content includes: basic safety, introduction to construction math, introduction to hand tools, introduction to power tools, introduction to blueprints, material handling, basic communication skills, and basic employability skills, and "Your Role in the Green Environment". The additional Green module has been added to provide students with instruction in the green environment, green construction practices, and green building rating systems. Also it will help students better understand their personal impacts on the environment and make them more aware of how to reduce their carbon footprint. English Language Arts and Mathematics are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. This course helps prepare students for additional National Center for Construction Education and Research (NCCER) Core certification. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Geometry is recommended as preparation for this course. *Due to potentially hazardous

NEW- IC212X0 Carpentry I:
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: IC00 Core and Sustainable Construction
This course covers basic carpentry terminology and develops technical aspects of carpentry with emphasis on development of introductory skills. English language arts and mathematics are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. This course helps prepare students for National Center for Construction Education and Research (NCCER) certification. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Geometry is recommended as preparation for this course.

NEW- IC222X0 Carpentry II
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: IC21 Carpentry I
This course covers additional technical aspects of carpentry with emphasis on development of intermediate skills. The course content includes floor systems, wall and ceiling framing, roof framing, introductions to concrete, reinforcing materials and forms, windows and exterior doors, and basic stair layout. English language arts and mathematics are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. This course helps prepare students for National Center for Construction Education and Research (NCCER) certification. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Geometry is recommended as preparation for this course.

NEW- IC232X0 Carpentry III
Recommended Maximum Enrollment: 20 **Hours of Instruction**: 135 (block)
Prerequisite: IC22 Carpentry II
This course develops advanced technical aspects of carpentry with emphasis on development of skills. The course content includes roofing applications, thermal and moisture protection, exterior finishing, cold formed steel framing and drywall installations. English language arts and mathematics are reinforced. Work-based learning strategies appropriate for this course include apprenticeship, cooperative education, internship, and job shadowing. This course helps prepare students for National Center for Construction Education and Research (NCCER) certification. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Geometry is recommended as preparation for this course.

Furniture and Cabinetmaking I
Course Number: IM212X0
Prerequisite: None
Description: This course introduces career information, employment opportunities, and skills required for work in the furniture and cabinetmaking industry. Topics include tools and equipment, theory and practice, types of woods, finishes, styles, bonds and fasteners. Skills in mathematics, reading, leadership, safety, and problem solving are reinforced in this course. Work-based learning strategies appropriate for this course are cooperative education and apprenticeship.

Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development. Geometry is a recommended prerequisite.

Furniture and Cabinetmaking II
Course Number: IM222X0
Prerequisite: Furniture and Cabinetmaking I
Description: This course covers development of more advanced knowledge and skills in the furniture and cabinetmaking industry. Emphasis is placed on construction principles as applied to mass production, and the construction and installation of cabinet drawers and doors. Skills in leadership, safety, mathematics, planning, and problem solving are reinforced in this course. Work-based strategies appropriate for this course are cooperative education and apprenticeship. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Masonry I
Course Number: IC112X0
Prerequisite: None
Description: This course introduces the nature of masonry technology, materials and supplies, and employability skills. Topics include safety, layout, tools, leveling, plumbing, use of straight-edge, and jointing brick and block in wall construction. Reading, mathematics, problem solving, and principles of technology are reinforced in this course. Job shadowing is an appropriate work-based learning strategy for this course. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Masonry II
Course Number: IC12240
Prerequisite: Masonry I
Description: This course provides a continuation of masonry skills, estimating, blueprint reading, and building codes. Topics include constructing walls, corners, sills, and similar structures using a variety of bonds and materials. Skills in safety, leadership, reading, mathematics, problem solving, and career development are reinforced in this course. Work-based learning strategies appropriate for this course are cooperative education and apprenticeship. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development. Geometry is a recommended prerequisite.

Masonry III
Course Number: IC132X0
Prerequisite: Masonry II
Description: This course provides advanced masonry skills, leadership development, and the preparation of technical presentations. Topics include constructing composite walls, steps, arches, lattice walls, sidewalks, brick and concrete pavers, window sills, chimneys, and fireplaces. Skills in safety, mathematics, reading, problem solving, and employability skills are reinforced in this course. Work-based learning strategies appropriate for this course are cooperative education and apprenticeship. Hands-on work experiences and SkillsUSA leadership activities provide many opportunities to enhance classroom instruction and career development.

Summary of Proposed Changes- Public Safety

No changes in curriculum offerings are being presented at this time; however; additional offerings are allowable for future expansion. These include Emergency Medical Technology, and Law Enforcement. As noted in the Star Jobs report from NC Commerce, firefighting is recognized in the Sandhills region as on the rise.
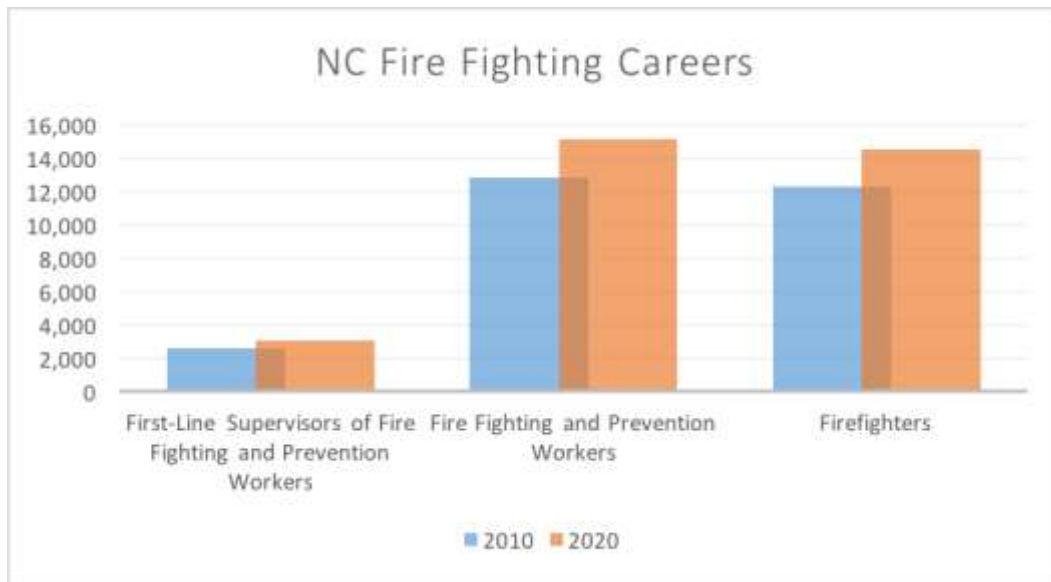
Proposed Offerings for Consolidated School

Fire Fighter Technology I
Course Number: IP312X0
Prerequisite: None
This course covers part of the NC Fire Fighter I/II combination certification modules required for all fire fighters in North Carolina. The modules include: Fire Department Orientation and Safety; Fire Prevention, Education, and Cause; Fire Alarms and Communications; Fire Behavior; Personal Protective Equipment; Portable Fire Extinguishers; and Fire Hose, Streams, and Appliances. English language arts are reinforced. Work-based learning strategies appropriate for this course including job shadowing. Apprenticeship and cooperative education are not available for this course. This course prepares students for the North Carolina Fire Fighter I/II certification modules. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Fire Fighter Technology II
Course Number: IP322X0
Prerequisite: 7835 Fire Fighter Technology I
This course covers additional NC Fire Fighter I/II combination certification modules required for all fire fighters in North Carolina. The modules include: Ropes; Ladders; Forcible Entry; Ventilation; Water Supply; Sprinklers; and Foam Fire Stream. English language arts are reinforced. Work-based learning strategies appropriate for this course including job shadowing. Apprenticeship and cooperative education are not available for this course. This course prepares

students for the North Carolina Fire Fighter I/II certification modules. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Fire Fighter Technology III
Course Number: IP332X0
Prerequisite: 7836 Fire Fighter Technology II
In this course, students select one specific occupation in the Career Cluster and conduct research to include the nature of the work, work environment, training, education, and advancement, and job prospects. Work-based learning strategies appropriate for this course including job shadowing and internship. Apprenticeship and cooperative training are not available for this course. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Public Safety I, II
Course Number: IP112X0
Prerequisite: None
This course provides basic career information in public safety including corrections, emergency and fire management, security and protection, law enforcement, and legal services. Additionally students will develop a personal plan for a career in public safety. The course includes skills in each area, using resources from the community to help deliver instruction to the students. English language arts are reinforced. Work-based learning strategies appropriate for this course include job shadowing. Apprenticeship and cooperative education are not available for this course. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

CULTURAL ARTS

Summary of proposed changes:
No changes are being presented at this time.

Description
The arts have been an inseparable part of the human journey. Arts education involves the "whole person." Arts education helps students perceive and think in new ways. The arts also help provide and extend meaning. An education in the arts benefits society because students of the arts disciplines gain powerful skills in understanding human experiences (past and present); teamwork and collaboration; making decisions creatively; learning problem recognition and problem solving; developing the essential senses; and analyzing nonverbal communication and making informed judgments. Students may enroll in any of the four forms of arts including dance, general and choral/vocal music, theatre arts and visual arts.

Proposed Offerings for Consolidated School

52302X0   Vocal Music (Beginning)
Prerequisite: None
This is an optional performing class. Proper breathing techniques and basic music theory are covered for the beginning vocalist. A variety of music is learned as well as choreography (movement). This course is designed for the person who likes to sing but is unsure of performing. Performance is an option for those who want and are approved by the director.

52312X0   Vocal Music (Ensemble)   (Intermediate)
Prerequisite: Chorus I is required and special permission from the conductor for ensemble.
Chorus II is a performance group. A variety of music is learned with choreography including musicals usually performed for elementary/middle schools. Advanced music theory and breathing techniques are included. Performances include football and basketball games, community events, and concerts.

52552X0   Band Beginning
52562X0   Band II Intermediate
52585X0   Band (Advanced) Honors
52575X0   Band (Proficient) Honors
This is a performing and educational unit designed to give band students the opportunity to develop musical skills as well as an appreciation for different musical styles. Basic music history and theory are also covered. Performances are required and are part of the grade of the grade for the course. A uniform dress code will also be required for performances.

54152   Visual Art Beginning
Prerequisite: None
This class is open to all students who have a desire to learn how to make art and to learn about Art History. Students are required to develop an overview of Art History by reading about specific artists, and by seeing videos of artists at work. Written tests and vocabulary quizzes are required. Students are required to learn effective use of line, form, shape, value, color, and texture in studio assignments. Assignments include composition skills, drawing, painting, three dimensional design, and computer drawing and designing. Students are required to work in a variety of mediums such as charcoal, pencil, ink, markers, water color printing, tempera painting, soft

pastel, print making, sculpture, textile design and others. Subjects include landscape, still life, animals, portrait, and functional products. Some materials may need to be purchased by students.

54162X0   Visual Art Intermediate

Prerequisite: Art I

This class is designed for students who have a serious desire to learn more about Artists, techniques, and materials. Students are expected to be proficient in all techniques and theory taught in Art I. Some materials may need to be purchased by students.

54175X0   Visual Arts Proficient (Honors)

This course will require research in the area of art history and an understanding of the principles of design. Drawing skills will be emphasized and extensive projects that require problem solving as well as technical skills will be required. Students will build a portfolio of work that will be presented as a part of their final grade.

54185X0   Visual Arts Advanced (Honors)

This course is for students who have serious intentions of entering the field of art as a career and plan to attend a professional art school, community college, four-year college, or university. There will be in-depth study of the principles of design.

54622X0   Graphic/Com. Design

Prerequisite: Visual Art I

This is a Visual Arts class promoting the use of technology as a production and creation tool. Classes will emphasize the development of techniques integrating computer technology, drawing, painting and sculpture. Students will be introduced to the commercial side of art production and develop a better understanding of art as it relates to our modern society. A basic knowledge of computers is recommended.

51152X0   Dance Beginning

This course is an introduction to the basic principles of dance. There is a major emphasis on exploring the different dance styles, learning dance technique in jazz, ballet, modern, performance technique and production, theatre and class etiquette, and dance history. Students will also study improvisation, composition, kinetic awareness, and dance in relation to other arts. Students must dress each day for class and participate in some form in the dance showcase performance at the end of each semester.

51162X0   Dance Intermediate

This course is a continuation of concepts studied in Dance I. Major emphasis on varied dance styles, increasing technique levels, performance and production technique, dance history, composition, and student choreography projects. Students must dress each day for class and participate in some form in the dance showcase performance at the end of each semester.

51275X0   Dance Proficient

This course is an in-depth continuation of concepts studied in Dance I, and Dance II. A major emphasis is placed on improvisation, choreography, history, social statements in dance, production and career opportunities. All students must dress out for class and participate in some form in the dance showcase performance at the end of each semester.

51185X0   Dance Advanced

This course is an in-depth continuation studied in previous dance courses. A major emphasis is placed on intense technique work, improvisation, choreography, physical fitness, production, careers, and performance experience. All students must dress out for class and participate in some form in the dance showcase performance at the end of each semester.

53152X0   Theatre Arts (Beginning)

Theatre Arts I is a course designed to introduce students to the various elements of the theatre and to encourage students in further participation. Students will examine and study the role that acting, directing, sound, lights, set, costumes, make-up, and publicity play in the creation of a line production. Students will be required to view and analyze one professional production during the semester. Students will also learn the basic approach to working comfortably on the stage through warm-ups, monologues, scene work and improvisation. Basic techniques of movement, voice projection, character development, and performance will be taught.

53162X0   Theatre Arts Intermediate

Prerequisite: Grade of 85 or above in Theatre I

 Theatre Arts II is a continuation of the work covered in Theatre Arts I. Students will engage in more intensive preparation of their craft. The creative physical, emotional, and mental aspects of performance are studied through scene work, monologues, and improvisations. Auditioning techniques will be examined as well. Students will be required to view and analyze one professional production during the semester. This course also includes an introduction to directing theatre. The director's concept and responsibilities are studied through scene work.

ENGLISH LANGUAGE ARTS

Summary of proposed changes:
There are no changes to the curriculum offerings at this time; however, it is important to note that the consolidated school will allow greater access to AP English Language and Composition, and the ENG prefix CCP courses with MCC.

Proposed Offerings for Consolidated School

10252X0   English Language Arts (local elective)
Prerequisite: Level I or II on 8th grade EOG
This course is designed to meet the needs of students who are not proficient in reading at the end of the 8th grade year. This combination of intensive reading instruction along with instruction in the other language arts processes (writing, speaking, and listening) helps students to improve in all language skills. A component of this course includes the READ180 program.

10212X0   English I
English I is a freshman level course designed to provide a study of literary genres (novels, short stories, poetry, drama, and literary nonfictions).   This survey course requires students to read and analyze US documents and one Shakespearean play. The purpose of this course is to provide integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language. Students will be required to complete class projects, oral presentations, and compositions as assigned.

10215X0   English I Honors
Honors English I is an academically rigorous freshman level course. It is recommended for students who are high achievers and are highly motivated. Students enrolled in English I will be required to demonstrate consistent honors-level effort in completing assignments. This course is designed to provide a study of literary genres (novels, short stories, poetry, drama, and literary nonfictions).   This survey course requires students to read and analyze US documents and one Shakespearean play. The purpose of this course is to provide integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language. Students will be required to complete class projects, oral presentations, and compositions as assigned.

10222X0   English II
English II introduces literary global perspectives focusing on literature from the Americas (Caribbean, Central, South, and North), Africa, Eastern Europe, Asia, Oceania, and the Middle East. This course requires students to read and analyze U.S. documents and a Shakespearean play.   Students will study a variety of literary selections and will complete various writing activities, which will include journal entries, letters, characterizations, and informational writing assignments. This course will include integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language.

10225X0   English II Honors

Honors English II is recommended for students who are high achievers and highly motivated. Higher level thinking skills, advanced vocabulary, and grammar study will be emphasized in conjunction with the study of literature. This course introduces literary global perspectives focusing on literature from the Americas (Caribbean, Central, South, and North), Africa, Eastern Europe, Asia, Oceania, and the Middle East. This course requires students to read and analyze U.S. documents and a Shakespearean play. Students will study a variety of literary selections and will complete various writing activities, which will include journal entries, letters, characterizations, and informational writing assignments. This course will include integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language.

10232X0   English III

English III includes an in-depth study of U.S. literature and U.S. literary nonfiction, especially foundational works and documents from the 17th century through the early 20th century. Students will be required to read and write about novels, short stories, poetry, and plays. This course will include integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language. All students will complete a research project that will include using bibliography cards, note cards, an outline, and a citation page.

10235X0   English III Honors

Honors English III is recommended for students who are high achievers and highly motivated to read and write. Students are asked to read and write about novels, short stories, poetry, nonfiction, and drama from both the textbook and outside sources. Vocabulary study will be advanced. Seminar format will be used extensively. This course includes an in-depth study of U.S. literature and U.S. literary nonfiction, especially foundational works and documents from the 17th century through the early 20th century. Students will be required to read and write about novels, short stories, poetry, and plays. This course will include integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language. All students will complete a research paper, which will include bibliography cards, note cards, outline, and a citation page.

10242X0   English IV

English IV completes the global perspective initiated in English II. Though its focus is on European (Western, Southern, Northern) literature, this course includes important U.S. documents and literature (texts influenced by European philosophy or action). Students will read and analyze at least one Shakespearean play. Students continue to explore expressive, expository, argumentative and literary contexts. This course will include integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language. All students will complete a research paper, which will include bibliography cards, note cards, outline, and a citation page.

For additional higher level ELA offerings please see:
 Career and College Promise Program, and NCVPS offerings found in the appendix.

10245X0   English IV Honors

Honors English IV is recommended for students who are high achievers and highly motivated to read and write. Students are asked to read and write about novels, short stories, poetry, nonfiction, and drama from both the textbook and outside sources. Vocabulary study will be advanced. English IV completes the global perspective initiated in English II. Though its focus is on European (Western, Southern, Northern) literature, this course includes important U.S. documents and literature (texts influenced by European philosophy or action). Students will read and analyze at least one Shakespearean play. Students continue to explore expressive, expository, argumentative and literary contexts. This course will include integrated educational experiences in the language arts strands of reading, writing, speaking, listening, and language. This course, moreover, requires student to study more challenging texts , to demonstrate critical thinking in generating thought provoking questions, and to work as self-directed and reflective learners independently and as leaders and collaborators in groups. All students will complete a research paper, which will include bibliography cards, note cards, outline, and a citation page.

1A007X0   AP English Language and Composition

This intense college-level, College Board class helps students become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and to become skilled writers who can compose for a variety of purposes. By their writing and reading in this course, students become aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effective writing. The course focuses on a study of both non-fiction and American literature. Students are required to take the AP English Language and Composition test. AP courses may only be offered through online, virtual streaming, off campus, or other hybrid methods as determined by enrollment. In some cases, a Career and College Promise course may be substituted.

10312X0   Journalism I

This course is open to juniors and seniors first semester. Journalism focuses on producing the yearbook and collecting/writing material for the weekly column in the Montgomery Herald. Each student will be responsible for designing pages and writing copy for a section of the yearbook. Students will also be responsible for ad sales and yearbook sales. Students must be willing to work after school.

10322X0   Journalism II

This is a second semester course. Instructor approval required.

WORLD LANGUAGES

Summary of proposed changes:
MCS has rarely, if ever, been able to offer an AP World Language course face to face. Currently, we rely on NCVPS to provide these. The consolidated school should allow the district to have enough students to offer at least one new AP World Language course.

Proposed Offerings for Consolidated School

NEW- AP World Language- Course number and language to be determined.

11412X0   Spanish I
Spanish I gives students an introductory course to the Spanish Language. Students have the opportunity to learn to read, write, listen, and speak the language at an elementary level. In Spanish I, the student will experience grammar, pronunciation, verb conjugations, simple conversations, and readings. In addition, students begin learning the Hispanic culture through readings and presentations.

10422X0   Spanish II
Prerequisite: Spanish I
Spanish II is a continuation of studies which began in Spanish I. More complex grammatical structures, more verb tenses and vocabulary are presented. Emphasis is given to the continued development of reading and writing skills. Spanish and Hispanic cultures are explored through more complex readings and presentations.

10435X0   Honors Spanish III
Prerequisites: Spanish II
Emphasis in Honors Spanish III is on advanced grammar and complex verb structures as well as specialized vocabulary. Historical, cultural, and current event topics are studied. Speaking, listening, reading, and writing abilities are further developed. This course carries a possible weight of 5 quality points.

10445X0   Honors Spanish IV
Prerequisite: Spanish III
This course involves a more intensive study of the language and culture. Students will be involved in independent activities and research guided by the teacher. This course carries a possible weight of 5 quality points.

12412X0   Latin I
Latin offerings at West Montgomery are set up to provide students a sequential, reading-based approach to the study of the language. In Latin I, the student will experience grammar, pronunciation, simple conversations, adapted readings from Latin authors and an emphasis on the Latin-English connection through the reading-based approach of the *Ecce Romani* series.

12422X0   Latin II
Prerequisite: Latin I

Latin II is a continuation of the sequential process which began in Latin I. More complex grammatical constructions are introduced. The reading-based approach of the *Ecce Romani* series continues with a continued emphasis on the Latin-English connection. The adapted readings, vocabulary, grammar, and stories are designed to enable the student to read from Latin originals, to understand the history and culture of the Roman civilization, and to strength understanding and use of the English language through the study of the Latin-English connection.

12435X0   Honors Latin III
Prerequisite: Latin II
Latin III will involve more readings from Latin originals, along with grammar, vocabulary, the Latin-English connection and cultural and historical material. A good background in Latin I and Latin II will be necessary for the advanced translation and complicated grammatical constructions requiring critical thinking skills. An independent research project will be required. This course carries the weight of five quality points.

12445X0   Honors Latin IV
Prerequisite: Latin III
Latin IV will use the reading-based Ecce Romani series. Latin originals with complex grammatical constructions will require a high degree of skill in Latin grammar and translation. Each student will be required to have a translation copy of Vergil's Aeneid, which will be used for a seminar project. Much of the work in the class may require independent study. This course carries the weight of five quality points.

11012X0   French I
This course is an introduction to the student of the French Language and its culture. It allows students to perform the most basic functions of the language and to become familiar with some elements of its culture. The emphasis is placed on the development of the four skills of listening, speaking, reading, and writing within a given context extending outside of the classroom setting when possible. Grammar is integrated throughout the course and is selected according to the language needs (functions). A general introduction to the culture, its products (i.e., literature, laws, foods, games) perspectives (e.g., attitudes, values, and beliefs) and practices (patterns of social interaction) is integrated throughout the course. Students acquire some insight into how languages and cultures work by comparing the target language and culture(s) to their own. Integration of other disciplines of is on-going throughout the course.

1022X0   French II
Prerequisite: French I
This course provides students with opportunities to continue the development of their listening, speaking, reading, and writing skills. Students participate in simple conversational situations by combine learned elements of the language orally and in writing. Students are able to satisfy basic survival needs and interact on issues of everyday life in the present time and past time inside and outside of the classroom setting. They compose related sentences that narrate, describe, compare, and summarize familiar topics from the target culture. Focus is placed on understanding main ideas. Students will develop an understanding of the similarities and differences between cultures and languages; as well as the examination of influences, beliefs and values of targeted cultures. Integration of other disciplines is on-going throughout the course.

MATHEMATICS

Summary of proposed changes:
There are no changes to the high school curriculum offerings at this time; however, it is important to note that the consolidated school will allow greater access to higher level math courses and the MAT prefix CCP courses with MCC.

Proposed Offerings for Consolidated School

20502X0   Foundations of Math I
This course is designed to introduce students to Math I concepts. Topics covered include the study of integers, linear equations, inequalities, and polynomials. Any student who does not make a proficient score on the eighth grade EOG test is recommended to take this course. Any student who feels insecure about Math I may take this course. Students earn one elective toward graduation but must take Math I to meet the state requirement for Math I.

21002X0   Math I
Math I provides students the opportunity to study concepts of algebra, geometry, functions, number operations, statistics and modeling throughout the same course. These concepts include expressions in the real number system creating and reasoning with equations and inequalities, interpreting and building simple functions, expressions geometric properties and interpreting categorical and quantitative data. Appropriate technology, from manipulatives to calculators and application software, should be used regularly for instruction and assessment.

22002X0   Math II
Prerequisite: Math I
Math II continues a progression of the standards established in Math I. In addition to these standards, Math II includes: polynomials, congruence and similarity of figures, trigonometry with triangles, modeling with geometry, probability, making inferences and justifying conclusions. Appropriate technology, from manipulatives to calculators and graphics software, should be used regularly for instruction and assessment. *A TI-84 Plus calculator is recommended for student use in this course.*

22005X0   Honors Math II
Prerequisite: Math I with a grade of 85% or higher.
Honors Geometry is a course for students who were highly successful in Math I. Honors Math II will be a more rigorous course of study. These are: Logic and Indirect Reasoning, Vectors, Reflections, and Transformations. Honors Math II students may be scheduled in a regular geometry class. *A TI-84 Plus calculator is recommended for student use in this course.*

23002X0   Math III
Prerequisite: Math II
Math III progresses from the standards learned in Math I and Math II. In addition to these standards, Math II extends to include algebraic conceptions such as: the complex number system, inverse functions, trigonometric functions and the unit circle. Math III also includes the geometric concepts of conics and circles. Appropriate technology, from manipulatives to calculators and application software, should be used regularly for instruction and assessment. *A TI-84 Plus calculator is recommended for student use in this course.*

23005X0   Honors Math III
Prerequisite: Geometry with a final grade in geometry of 85% or higher
Honors Math III is designed for students who have demonstrated high level of performance in Math II. Honors Math III students may be scheduled in a regular Math III class. *A TI-84 Plus calculator is recommended for student use in this course.*

24015X0   Honors Discrete Math
Prerequisite: Math III
Discrete Mathematics introduces students to the mathematics of networks, social choice, and decision making. The course extends students' application of matrix arithmetic and probability. Applications and modeling are central to this course of study. Appropriate technology, from manipulatives to calculators and application software, should be used regularly for instruction and assessment. *A TI-84 Plus calculator is recommended for student use in this course.*

24082X0   SREB Ready Math
Prerequisite: Math III
This course emphasizes understanding of math concepts rather than just memorizing procedures. Math Ready students learn the context behind the procedure: why to use a certain formula or method to solve a problem, for example. This equips them with higher-order thinking to apply math skills, functions and concepts in different situations. Prepares students for college-level math assignments based on the content.
(Not designed to prepare students for college-level math in STEM majors)

24035X0   Honors Pre-Calculus
Prerequisite: Math III
Highly Suggested Prerequisite: Discrete Math or Advanced Functions and Modeling
Pre-Calculus provides students an honors-level study of trigonometry, advanced functions, analytic geometry, and data analysis in preparation for calculus. Applications and modeling should be included throughout the course of study. Appropriate technology, from manipulatives to calculators and application software, should be used regularly for instruction and assessment. *A TI-84 Plus calculator is recommended for student use in this course.*

25017X0   Calculus
Prerequisite: Honors Pre-Calculus
Honors Calculus develops the student's understanding of the concepts of calculus (functions, graphs, limits, derivatives, and integrals) and provides experience with its methods and applications. The course encourages the geometric, numerical, analytical, and verbal expression of concepts, results, and problems. *A TI-84 Plus calculator is recommended for student use in this course.*

For additional higher level math offerings please see:
 Career and College Promise Program, NCSSM and NCVPS offerings found in the appendix.

PHYSICAL EDUCATION

Summary of proposed changes:
There are no changes to the physical education curriculum offerings at this time.

Proposed Offerings for Consolidated School

60492X0F   **Health & Physical Education 9-12**
60492X0M
Prerequisite: None
This course is directed toward a "total wellness" concept. Health emphasizes the importance of understanding the physical, mental, social, and emotional elements of the body, the responsibility of each person in maintaining and promoting good health and safety individually and as a group, and the development of desirable relationships with others.

60392X0AP1   **Advanced Physical Education**
This course is designed to give the students a general knowledge of skills and fundamentals of team sports. Students also learn rules and regulations of the sports as well as taking parting officiating and scoring. Team sports include football, volleyball, softball, baseball, and lead-up activities.

60392X0AP2   **Advanced Physical Education II**
This course is designed to give the students a general knowledge of skills and fundamentals in individual sports/lifetime sports. Students will learn rules and regulations of the sports as well as take part in officiating and scoring.

60392X0AP3   **Advanced Physical Education III**
This course is designed for students interested in coaching various team sports as well as individual sports. This course will involve teaching strategies, skills, and knowledge necessary to become a successful coach.

60392X0AP4   **Advanced Physical Education IV**
This course is designed for students interested in coaching various team sports as well as individual sports. This course will involve teaching strategies, skills, and knowledge necessary to become a successful coach.

60392X0WTI   **Weight Training/Conditioning I**
This program is designed for the novice weight-training student. It involves introductory techniques of weight training and cardiovascular conditioning, safety precautions and injury prevention, and other method of weight management. The major focuses are general muscle toning and achieving total fitness. The development of a personal fitness plan is a part of this program.

60392X0WT2   **Weight Training/Conditioning II**
This course will include muscular system, skeletal system, nutrition, and diet. It will also include lifts for strengthening individual muscles and team games and drills for conditioning purposes.

60392X0WT3   **Weight Training/Conditioning III**

The course will include cardiovascular system, substance abuse and a basic workout program for strengthening various parts of the body. It will also include team games and drills for conditioning purposes.

60392X0WT4   Weight Training/Conditioning IV
The course will include drug awareness, healthy diet, motivation strategies, team games, and drills for conditioning purposes.

62022X0SM1   Sports and Field Management
62022X0SM2
Prerequisite: Teacher/Principal Approval (Application Process)
This course is designed to teach students the proper use of field management equipment, procedures for paint marking fields, and the appropriate materials to use in field prep and maintenance. Athletic training, sports officiating, and all aspects of athletic support will be addressed.

62022X0WTG   Women's Athletic Enhancement& Weight Training
Strength and conditioning for women will be the focus of this program, with additional training skills, running, and movement exercises added to promote flexibility. Proper lifting techniques and nutrition will also be part of the program of study. This course will also have an emphasis on team and individual sports. There will be also be a variety of workouts designed to develop skills for each sport. Workouts will encompass the development of cardio-respiratory endurance, muscular strength and endurance, flexibility, balance and agility. This program is strongly recommended for student-athletes.

SCIENCE

Summary of proposed changes:
There are no changes to the curriculum offerings at this time; however, it is important to note that the consolidated school will allow greater access to AP Biology, Chemistry, Earth and Environmental Science, and the CCP science courses with MCC.

Proposed Offerings for Consolidated School

34102X0   Physical Science
Physical Science is the practical study of matter and energy. This course is designed to introduce students to fundamental concepts in physics and chemistry such as: the nature and limitations of science, atomic structure of matter, basic inorganic and organic chemistry, mechanics, electrical theory, and forms, uses, and interactions of energy.

33202X0   Biology
The Biology course encourages students to continue their investigations and deepen student understanding of the biological sciences begun in grades K-8. In depth study of the following concepts is included: the cell, the molecular basis of heredity, biological evolution, the interdependence of organisms, matter, energy and organization in living systems, and the adaptive responses of organisms. The unifying concepts and program strands provide a context for teaching content and process skill goals.

33205X0   Honors Biology
Prerequisite: TBD
Honors Biology is for advanced sophomores. It is a general survey course with emphasis on preparation for advanced biology courses and college preparatory work. Some major areas of study include ecology, cellular structure and function, genetics, evolution, and the diversity of living things. Laboratory exercises accompany class work when possible. Meets graduation requirements but is specifically designed and taught for accelerated/college prep students. Full lab reports are required.

33215X0   Honors Biology II
This course is designed to prepare students for college level course work. Concepts are covered at a more rapid pace, more detailed knowledge required, and greater depth of understanding. Topics will include chemistry of life, cell structure and function, genetics and DNA technology, mechanisms of evolution, and evolutionary history of biological diversity. Laboratory experience is highly emphasized. Students must be willing to put in a great deal of time outside of class reading and preparing for in class activities. Full lab reports are required. **This course requires a summer assignment.**

3A007X0   AP Biology Dependent upon enrollment
Successful completion of Honors Biology II is required.
This course is designed to be the equivalent of a college biology course. Laboratory experience is highly emphasized. Concepts are covered at a more rapid pace, more detailed knowledge required, and greater depth of understanding. Topics will include biochemistry, cell structure and function, genetics, DNA technology, evolution, biodiversity of species, plant form and function, animal form and function, and ecology.   Students must be willing to put in a great deal of time outside of class reading and preparing for in class activities. Students wishing to pursue college credit must take the Advanced Placement Biology exam. AP courses may only be offered through online, virtual streaming, off campus, or other hybrid methods as determined by enrollment. In some cases, a Career and College Promise course may be substituted.

35012X0   Earth/Environmental Science
This course is designed to inform students of Earth's history, structure, composition, and activity above and below surface. The use and limits of Earth's natural resources and the universe surrounding Earth are also included. Earth Science involves the use of metrics and learning mapping skills. Certain environmental science concepts will also be covered.

35015X0   Honors Earth/Environmental Science
Prerequisite: Level 3 on 8th Grade EOG in Science, Reading, and Math
This course is designed to study Earth's history, structure, composition, and activity above and below surface, use and limits of Earth's natural resources and the universe surrounding Earth as well as environmental science concepts. Earth Science involves the use of metrics and learning mapping skills. The objective of this course is to give students an appreciation and understanding of the natural phenomena that affects their lives. Full lab reports and projects are required.

3A027X0   AP Environmental Science   Dependent upon enrollment
Prerequisites: Math I
This course is designed to be the equivalent of an introductory college course in Environmental Science. The goal is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world to identify and analyze environmental problems both natural and human made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and or preventing them. AP courses may only be offered through online, virtual streaming, off campus, or other hybrid methods as determined by enrollment. In some cases, a Career and College Promise course may be substituted.

34202X0   Chemistry
Prerequisite: Math III
The Chemistry course encourages students to continue their investigations of the structure of matter along with chemical reactions and the conservation of matter and energy in those reactions. Inquiry is applied to the study of the composition, structure, properties and transformation of substances. The course focuses on basic chemical concepts and incorporates investigations to build understanding of these concepts. The unifying concepts and program strands provide a context for teaching content and process skill goals.

34215X0   Chemistry Honors II
Prerequisites: Math I, Math II, H Biology, and Chemistry.
This course is designed to prepare students for college level work. Concepts are covered at a more rapid pace, more detailed knowledge required, and greater depth of understanding. Topics covered will be advanced nomenclature, stoichiometry, thermodynamics, equations, bonding concepts, and gas laws. Each topic is covered with an emphasis on laboratory experience. Full lab reports required. A scientific calculator and a summer chemistry assignment **are required**. **This course requires a summer assignment.**

3A017X0   AP Chemistry Online/Streamed/Hybrid Format
Prerequisites: Successful completion of Honors Chemistry II.
AP Chemistry is an in depth study designed to prepare students to take the AP exam in the spring. Topics covered are electrochemistry, reaction production, thermochemistry, electron configuration, gaseous equilibrium, acid-base equilibrium, kinetics, solution process, bonding, solubility, and gas laws. Students wishing to pursue college credit must take the Advanced Placement Chemistry Exam. AP courses may only be offered through online, virtual streaming, off campus, or other hybrid methods as determined by enrollment. In some cases, a Career and College Promise course may be substituted. ***Seniors will have priority.**

34305X0   Honors Physics
Prerequisites: Math III
Physics provides a thorough investigation of the behavior and structure of matter, including the study of motion, heat, sounds, light, electricity, magnetism, and nuclear physics. Laboratory investigations are used to explore these concepts. Physics is a quantitative science that requires good skills in algebra, geometry, and trigonometry.

For additional higher level science offerings please see:
 Career and College Promise Program, NCSSM and NCVPS offerings found in the appendix.

SOCIAL STUDIES

Summary of proposed changes:
Current social studies offerings are limited to the four required courses for graduation, Bible History, and an occasional classical history class. With the consolidation, MCS is planning to expand offerings to include two AP courses; AP Human Geography and AP Government and Politics. Additionally, students will be able to have greater access to the social science CCP courses through MCC.

Proposed Offerings for Consolidated School

NEW- 45027X0 AP Human Geography
This is a year-long course. The purpose of the AP course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

NEW- 42027X0 AP Government and Politics
AP Government and Politics US includes general concepts used to interpret US politics (specific examples will be analyzed). Students in this course will confront critical questions about the American political landscape and their roles as citizens. We will question the compatibility of capitalism and democracy, the balance between security and liberty, and the relationship between rights and responsibilities. Our attention will focus on Constitutional principles, the political process, policy making institutions, rights and liberties, and the politics of national policy. We will analyze such important concepts as social capital, immigration, inequality, racism, education, First Amendment rights, and the media. Students will not only read their textbook and numerous outside readings in one semester, but they should anticipate an average of one hour of homework per night. Students will complete work on challenging projects and sophisticated tests and will be expected to contribute to critical discussion. Students will complete weekly journal reviews of political events.

43032X0   World History
This course provides the student with the cultural, social, governmental and civic development of Western Civilization and its relationship to other Civilization from the dawn of time.

43035X0   Honors World History
World History is a survey course that gives students the opportunity to explore recurring themes of human experience common to civilizations around the globe from ancient to contemporary times. Students will examine the historical roots of significant events, ideas, and movements. They will broaden their historical perspectives as they explore ways societies have dealt with continuity and change as exemplified by issues such as war and peace, internal stability and strife, and the development of institutions.

42092X0   Civics and Economics
Prerequisites: World History
Civics and Economics is a required course that will include the study of government, citizenship, and social, economic, and political systems. The student will learn how individuals, groups, and governments work together to solve problems. This course is required for graduation.

42095X0   Honors Civics and Economics
Prerequisites: World History
This course will provide a more rigorous examination of American economic and government systems. Students will analyze issues relating to all citizens through specialized activities, portfolios, readings, and writing assignments.

43042X0   American History I
43045X0   Honors American History I (Honor's Level Available- Check with your guidance counselor)

American History I: The Founding Principles will begin with the European exploration and colonial settlement to the Revolutionary and Constitutional eras. Students will learn about the important political and economic factors that contributed to the development of colonial America and the outbreak of the American Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. The coursework will guide students as they study the establishment of political parties, America's westward expansion, the growth of sectional conflict, how that sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction.

43052X0   American History II
43055X0   Honors American History II (Honor's Level Available- Check with your guidance counselor)

American History II: The Founding Principles will guide students from the late nineteenth century time period through the early 21st century. Students will examine the political, economic, social, and cultural development of the United States from the end of the Reconstruction era to present times. The essential standards of American History II: The Founding Principles will trace the change in the ethnic composition of American society; the movement toward equal rights for racial minorities and women; and the role of the United States as a major world power. An emphasis is placed on the expanding role of the federal government and federal courts as well as the continuing tension between the individual and the state. The desired outcome of this course is for students to develop an understanding of the cause-and-effect relationship between past and present events, recognize patterns of interactions, and understand the impact of event on the United States in an interconnected world.

48002X0CH   Classical History: The Empires of Greece and Rome   WMHS
This course will be an overview of the rise, maintenance, and fall of the great civilizations of ancient Europe, primarily the Greek and Roman Empires. Students will receive an in-depth survey of the importance of these civilizations in their own context as well as their impact on the formation of modern day philosophy, religion, language, and government principles. Course material will cover from the coalescence of the Greek city-states through the rise of Alexander's empire and the spread of classical Hellenism, to the rise of the Roman Republic, its transition to empire, and its eventual collapse.

48002X0BH   Bible History
48005X0BH   Bible History Part II

Bible History is a survey course that focuses on early Jewish and Christian culture, customs, and history. Students will also analyze the Bible's impact on ancient and modern world history. The primary textbook for the class is the Bible, supplemented by *The Bible and Its Influence*.

For additional higher level science offerings please see:
 Career and College Promise Program and NCVPS offerings found in the appendix.

ADDITIONAL ELECTIVES

96082X0   Media Assistant   (11-12)
Prerequisite: Media Specialist approval
Media Assistants perform regularly assigned duties in the Media Center. These include the following: circulating materials for patrons using automated library software and shelving and maintaining books and periodicals. Assistants will be evaluated in their assessment of patron needs, arrangement of books, knowledge of Dewey Decimal Classification System, and knowledge of reference materials.

54612X0G Glass Blowing   (11-12)
This course is taught off campus at StarWorks. It provides students with hands on experience in creating unique glass projects and creations as well as using alternative fuel sources for the projects.

CS972X0   CTE Internship
Prerequisite: Must be a junior or senior and be sponsored by a program area teacher who will serve as the advisor. A CTE Internship allows for additional development of career and technical competencies within a general career field. 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. 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.

CS962X0   CTE Apprenticeship
Recommended Maximum Enrollment: Does not apply **Hours of Instruction**: 135 (block
Prerequisite: Two technical credits in one Career Cluster
Students who participate in apprenticeships or pre-apprenticeships through the North Carolina Department of Labor, Apprenticeship and Training Bureau can also earn CTE credit while they earn hours and experience toward an adult apprenticeship leading to a completed journeyman certificate. This course is appropriate for occupations that do not require a college degree but require a high level of skill and knowledge.

CTE Advanced Studies
Course Number: C5952X0--
Prerequisite: Three technical credits within any career cluster.
Description: This culminating, career-focused course for seniors in CTE programs includes a research paper, product, and presentation. Emphasis is on students demonstrating their abilities to use content and apply knowledge to real-world situations. Skills in leadership, writing, speaking, problem solving, mathematics, and science are reinforced in this course. It is important to connect work-based learning such as internship, apprenticeship, and cooperative education to this course. Students work under the guidance of a teacher-facilitator in collaboration with community members, business representatives, and other school-based personnel. Hands-on work experiences and CTSO leadership activities provide many opportunities to enhance classroom instruction and career development.

96142X0   **AVID (Advancement Via Individual Determination)**
Prerequisite: Selection process, 2.0-3.5 GPA.

The AVID course is an elective class for students who are college-bound. The AVID curriculum focuses on writing, inquiry, collaboration, organization, and reading (WICOR) through the AVID High School curriculum in both teacher and tutor-led activities. While concurrently enrolled in a college-prep course of study, students learn strategies to enhance success. Note-taking, outlining, writing, speaking, reading, test-taking strategies, organization, and self-awareness are stressed. In addition, the course includes college motivational activities and includes preparation for the ACT and SAT.

NC Career & College Promise

NC Career & College Promise: What is it?

The Career & College Promise (CCP) program offers motivated North Carolina high school students a clear, focused, and affordable path to future success, allowing them to get a head start on their career and college preparation. Through CCP pathways, qualified North Carolina high school juniors and seniors have the opportunity to enroll – tuition free – in community college courses that lead to a certificate, diploma, or degree as well as provide entry-level job skills. Academic credits earned will enable students who continue into postsecondary education after high school graduation to complete a postsecondary credential in less time than would normally be required.

What are the CCP pathways available at Montgomery Community College?

- **College Transfer** – Montgomery Community College offers both of the College Transfer pathways now available to North Carolina high school students – the pathway leading to the Associate in Arts and the pathway leading to the Associate in Science. Students successfully completing one of these pathways can earn 33-35 semester hours of college credits. ***New course options are proposed for Fall 2015; pending NCCCS approval.***

- **Career/Technical Education** – Career/Technical Education (CTE) pathways are aligned with high school career clusters and lead to a certificate or diploma in a technical career area. Career clusters refer to fields of employment or industries that lead to careers within a specific field or industry. MCC currently offers fourteen CTE certificate pathways and one CTE diploma pathway.

Accounting	Forest Management Technology
Air Conditioning, Heating, & Refrigeration Technology	Human Services Technology
Business Administration	Hunting/Shooting Sports Management
Computer Technology Integration	Medical Assisting
Criminal Justice Technology – certificate and diploma options	Office Administration
Early Childhood Education	Taxidermy: Fish
Electrical Systems Technology	Taxidermy: Mammal

Who can enroll in a CCP pathway?

- **College Transfer** – NC high school juniors and seniors with a minimum weighted GPA of 3.0 on high school courses who have demonstrated college readiness on an approved assessment or placement test may apply for admission to a College Transfer pathway.
- **Career/Technical Education** – NC high school juniors and seniors who have a minimum weighted GPA of 3.0 on high school courses or have the recommendation of the high school principal or designee may apply for admission to a CTE pathway. Students must demonstrate college readiness by meeting any course or program prerequisites.

What are the costs?

Tuition is waived for all CCP students. A $25 book fee per course will be charged to students attending high schools located in Montgomery County; students attending high schools located in other counties are responsible for purchasing their own textbooks. Lab fees are charged for various courses in the Air Conditioning/Heating/Refrigeration Technology, Electrical Systems Technology, and Taxidermy pathways. See the program pathway pages in this booklet for specific information on fees.

Ontgomery
Community College

Career & College Promise

In today's global economy, successful careers could require a two- or four-year degree or a nationally-recognized job credential.

Career & College Promise ("CCP") is North Carolina's dual enrollment program for high school students. This program allows eligible NC high school students to enroll in college classes at North Carolina community colleges and universities through their high school. Students who successfully complete college courses earn college credit they can take with them after graduation. In many cases, students can also earn dual credit - meeting high school graduation requirements with college courses.

Career & College Promise offers students the option to choose from these pathways:

- **College Transfer** - Designed for students planning to continue their educational career beyond high school to eventually achieve an Associate's or Bachelor's degree at a community college or university.
- **Career & Technical Education** - Allows students to begin a certification or diploma program in a particular technical field or career area.
- **Cooperative Innovative High Schools** - North Carolina's early colleges and other innovative schools are small public high schools, usually located on the campus of a university or community college, where students simultaneously work toward completion of both the high school diploma and an associate's degree.

Career & College Promise offers North Carolina high school students the option to pursue educational and career goals of their choice using a rigorous yet supportive structure designed to help them become successful.

For more information, visit www.careercollegenc.org.
Visit us online at: www.montgomery.edu

Career & College Promise Pathway Descriptions and Eligibility Requirements

College Transfer Pathway	Career Technical Education Pathway
- Earn college credits that transfer seamlessly to any public or participating private college or university. - Reduced cost for a two- or four-year degree. - Accelerated completion of a diploma, associate degree or four-year degree. - Develops skills for success at the next level.	- Obtain a certificate or diploma in a technical field tuition-free. - Includes applied academic skills needed for workplace success. - Earn technical course credits while working toward a high-school diploma.
Eligibility: - Be a high school junior or senior. - Enter the program with a weighted 3.0 GPA and maintain a 2.0 on college coursework after completing two courses. - Continue to make progress toward high school graduation. - Demonstrate college readiness in English, reading and mathematics on an approved assessment or placement test (visit careercollegenc.org for details). - Select a program of study.	**Eligibility:** - Be a high school junior or senior. - Enter the program with a weighted 3.0 GPA (or have a principal's recommendation) and maintain a 2.0 on college coursework after completing two courses. - Continue to make progress toward high school graduation. - Demonstrate career and college readiness through career pathway prerequisites. - Take PLAN assessment while in grade 10. - Select a program of study.

Revised: Jan. 2015

CCP Courses offered by MCC

	Pathways	Abbreviation
College Transfer	College Transfer pathway leading to the Associate in Arts	CTAA
	College Transfer pathway leading to the Associate in Science	CTAS
Career Technical Education	Accounting	ACC
	Air Conditioning, Heating, & Refrigeration Technology	ACHR
	Business Administration	BA
	Computer Technology Integration	CTI
	Criminal Justice Technology - certificate	CJC
	Criminal Justice Technology - diploma	CJD
	Early Childhood Education	EC
	Electrical Systems Technology	EST
	Forest Management Technology	FMT
	Human Services Technology	HST
	Hunting & Shooting Sports Management	SSM
	Industrial Systems Technology	IST
	Medical Assisting	MA
	Nurse Aide	NA
	Office Administration	OA
	Phlebotomy – *Program pending approval by the NCCCS State Board*	PBT
	Taxidermy: Fish	TXYF
	Taxidermy: Mammal	TXYM

		Course	Program(s)	Online	Seated	Hybrid
College Transfer Pathway leading to the Associate in Arts		**English Composition (6 shc required)**				
		ENG 111 Writing & Inquiry	CTAA/CTAS/CJD	X	X	X
	*	ENG 112 Argument-Based Research (prereq = ENG 111)	CTAA/CTAS	X	X	X
		Communication/Humanities/Fine Arts (9 shc required); choose 3 courses from at least 2 different subjects				
		ART 111 Art Appreciation	CTAA/CTAS	X		
		COM 231 Public Speaking	CTAA/CTAS		X	
	*	ENG 231 American Literature I (prereq = ENG 112)	CTAA/CTAS	X	X	
	*	ENG 232 American Literature II (prereq = ENG 112)	CTAA/CTAS	X	X	
		MUS 110 Music Appreciation	CTAA/CTAS	X		X
	*	PHI 215 Philosophical Issues (prereq = ENG 111)	CTAA/CTAS	X		X
	*	PHI 240 Intro to Ethics (prereq = ENG 111)	CTAA/CTAS	X		X
		Social/Behavioral Science (9 shc required); choose 3 courses from at least 2 different subjects				
		ECO 251 Principles of Microeconomics	CTAA/CTAS	X	X	
		ECO 252 Principles of Macroeconomics	CTAA/CTAS	X	X	
		HIS 111 World Civilizations I	CTAA/CTAS	X	X	
		HIS 112 World Civilizations II	CTAA/CTAS	X	X	
		HIS 131 American History I	CTAA/CTAS	X	X	
		HIS 132 American History II	CTAA/CTAS	X	X	
		POL 120 American Government	CTAA/CTAS	X	X	
		PSY 150 General Psychology	CTAA/CTAS/HST/PBT	X	X	X

		Online	Seated	Hybrid
SOC 210 Intro to Sociology	CTAA/CTAS	X	X	

Math (3-4 shc required); choose 1 course

		Online	Seated	Hybrid
MAT 143 Quantitative Literacy	CTAA		X	
MAT 152 Statistical Methods I	CTAA		X	X
MAT 171 Precalculus Algebra	CTAA/CTAS		X	X

Natural Science (4 shc required); choose 1 course

		Online	Seated	Hybrid
BIO 111 General Biology I	CTAA/CTAS		X	X
CHM 151 General Chemistry I	CTAA/CTAS	X	X	X

Academic Transition (1 shc required)

		Online	Seated	Hybrid
ACA 122 College Transfer Success	CTAA/CTAS	X	X	X

			Online	Seated	Hybrid

College Transfer pathway leading to the Associate in Science

English Composition (6 shc required)

			Online	Seated	Hybrid
	ENG 111 Writing & Inquiry	CTAA/CTAS/CJD	X	X	X
*	ENG 112 Argument-Based Research (prereq = ENG 111)	CTAA/CTAS	X	X	X

Communication/Humanities/Fine Arts (6 shc required); choose 2 courses from 2 different subjects

			Online	Seated	Hybrid
	ART 111 Art Appreciation	CTAA/CTAS	X		
	COM 231 Public Speaking	CTAA/CTAS		X	
*	ENG 231 American Literature I (prereq = ENG 112)	CTAA/CTAS	X	X	
*	ENG 232 American Literature II (prereq = ENG 112)	CTAA/CTAS	X	X	
	MUS 110 Music Appreciation	CTAA/CTAS	X		X
*	PHI 215 Philosophical Issues (prereq = ENG 111)	CTAA/CTAS	X		X
*	PHI 240 Intro to Ethics (prereq = ENG 111)	CTAA/CTAS	X		X

Social/Behavioral Science (6 shc required); choose 2 courses from 2 different subjects

			Online	Seated	Hybrid
	ECO 251 Principles of Microeconomics	CTAA/CTAS	X	X	
	ECO 252 Principles of Macroeconomics	CTAA/CTAS	X	X	
	HIS 111 World Civilizations I	CTAA/CTAS	X	X	
	HIS 112 World Civilizations II	CTAA/CTAS	X	X	
	HIS 131 American History I	CTAA/CTAS	X	X	
	HIS 132 American History II	CTAA/CTAS	X	X	
	POL 120 American Government	CTAA/CTAS	X	X	
	PSY 150 General Psychology	CTAA/CTAS/HST/PBT	X	X	X
	SOC 210 Intro to Sociology	CTAA/CTAS	X	X	

Math (8 shc required); choose 2 courses

			Online	Seated	Hybrid
	MAT 171 Precalculus Algebra	CTAA/CTAS		X	X
*	MAT 172 Precalculus Trigonometry (prereq = MAT 171)	CTAS		X	X
*	MAT 263 Brief Calculus (prereq = MAT 171)	CTAS		X	X
*	MAT 271 Calculus I (prereq = MAT 172)	CTAS		X	X

A student may place directly into MAT 271 if the student has met at least one of the following criteria within the past 5 years:
1. A score of 2 or higher on the AP Calculus AB Exam.
2. A grade of C or higher in an AP Calculus course and an unweighted HS GPA of 3.0 or higher.
3. A score of 90 or higher on the ACCUPLACER College-Level Math (CLM) test.
4. A score of 46 or higher on the trigonometry section of the ACT Compass Math Placement Test.
5. A score of 580 or higher on the SAT Math and a grade of C or higher in the North Carolina Standard Course of Study Pre-Calculus course or an equivalent course from another state.
6. A score of 27 or higher on the ACT Math and a grade of C or higher in the North Carolina Standard Course of Study

				Online	Seated	Hybrid
		Pre-Calculus course or an equivalent course from another state. 7. A score of 560 or higher on the SAT Subject Test in Mathematics Level 2.				
	Natural Science (8 shc required); choose a 2-course *sequence* of either BIO 111 + 112 or CHM 151 + 152					
		BIO 111 General Biology I	CTAA/CTAS		X	X
	*	BIO 112 General Biology II (prereq = BIO 111)	CTAS		X	X
		CHM 151 General Chemistry I	CTAA/CTAS	X	X	
	*	CHM 152 General Chemistry II (prereq = CHM 151)	CTAS	X	X	
	Academic Transition (1 shc required)					
		ACA 122 College Transfer Success	CTAA/CTAS	X	X	X
				Online	**Seated**	**Hybrid**
CTE Accounting		ACC 120 Principles of Financial Accounting	ACC/BA	X	X	
	*	ACC 121 Principles of Managerial Accounting (prereq = ACC 120)	ACC	X	X	
		ACC 129 Individual Income Taxes	ACC	X	X	
	*	ACC 140 Payroll Accounting (prereq = ACC 120)	ACC	X	X	
	*	ACC 150 Accounting Software Applications (prereq = ACC 120)	ACC	X	X	
		CIS 111 Basic PC Literacy	ACC/BA	X	X	

				Online	Seated	Hybrid
CTE AC, Heating, & Refrigeration	#	AHR 110 Intro to Refrigeration - $25 course fee required	ACHR		X	
		AHR 113 Comfort Cooling	ACHR		X	
	*	AHR 114 Heat Pump Technology (prereq = AHR 110 or AHR 113)	ACHR		X	
		AHR 151 HVAC Duct Systems I	ACHR		X	
		AHR 160 Refrigerant Certification	ACHR		X	
				Online	**Seated**	**Hybrid**
CTE Business Admin		ACC 120 Principles of Financial Accounting	BA/ACC	X	X	
		BUS 110 Intro to Business	BA	X	X	
		BUS 115 Business Law I	BA	X	X	
		BUS 121 Business Math	BA	X	X	
		CIS 111 Basic PC Literacy	BA/ACC	X	X	
		ECO 251 Principles of Microeconomics	BA	X	X	
				Online	**Seated**	**Hybrid**
CTE Computer Technology Integration		CET 111 Computer Upgrade/Repair I	CTI			X
		CET 211 Computer Upgrade/Repair II	CTI		X	
		CIS 110 Introduction to Computers	CTI	X	X	
		CTI 110 Web, Pgm, & Db Foundation	CTI	X		
		CTI 120 Network and Sec Foundation	CTI			X
				Online	**Seated**	**Hybrid**
CTE Criminal Justice certificate		CJC 111 Intro to Criminal Justice	CJC/CJD	X	X	
		CJC 121 Law Enforcement Operations	CJC/CJD	X	X	
		CJC 131 Criminal Law	CJC/CJD	X	X	
		CJC 221 Investigative Principles	CJC/CJD	X	X	
		CJC 231 Constitutional Law	CJC/CJD	X	X	
				Online	**Seated**	**Hybrid**
CTE Criminal Justice diploma		CJC 111 Intro to Criminal Justice	CJC/CJD	X	X	
		CJC 112 Criminology	CJD	X	X	
		CJC 113 Juvenile Justice	CJD	X	X	
		CJC 121 Law Enforcement Operations	CJC/CJD	X	X	
		CJC 131 Criminal Law	CJC/CJD	X	X	
		CJC 132 Court Procedure & Evidence	CJD	X	X	
		CJC 160 Terrorism: Underlying Issues	CJD	X	X	
		CJC 214 Victimology	CJD	X	X	
		CJC 221 Investigative Principles	CJC/CJD	X	X	
		CJC 225 Crisis Intervention	CJD	X	X	
		CJC 231 Constitutional Law	CJC/CJD	X	X	
		CJC 241 Community-Based Corrections	CJD	X	X	
	*	ENG 111 Writing & Inquiry	CJD/CTAA/CTAS	X	X	X
	* Prereq = English/Reading scores must be high enough to place student **out of** the DRE 098 developmental English/Reading course.					
		REL 110 World Religions	CJD	X	X	

				Online	Seated	Hybrid
CTE Early Childhood		EDU 119 Early Childhood Education	EC	X	X	
	*	EDU 144 Child Development I	EC	X	X	
	*	EDU 145 Child Development II	EC	X	X	
	*	EDU 146 Child Guidance	EC	X	X	
	*	EDU 151 Creative Activities	EC	X	X	
	* Prereq = English/Reading scores must be high enough to place student **out of** the DRE 097 developmental English/Reading course.					

				Online	Seated	Hybrid
CTE Electrical Systems	#	ELC 112AB DC/AC Electricity (Part A) - $25 course fee required	EST/IST		X	
	*	ELC 112BB DC/AC Electricity (Part B) (prereq = ELC 112AB)	EST/IST		X	
	Students must complete both 112AB and 112BB to receive credit for the course.					
	#	ELC 113 Basic Wiring I - $25 course fee required	EST		X	
	#	ELC 117 Motors & Controls - $25 course fee required	EST		X	

				Online	Seated	Hybrid
CTE Forest Mgt		FOR 121 Dendrology	FMT		X	
		FOR 131 Forest Measurements	FMT		X	
		FOR 171 Intro to Forest Resources	FMT		X	
	*	FOR 232 Forest Mensuration (prereq = FOR 131)	FMT		X	

				Online	Seated	Hybrid
CTE Human Services		HSE 110 Intro to Human Services	HST	X	X	
		HSE 125 Counseling	HST	X	X	
		HSE 225 Crisis Intervention	HST	X	X	
		PSY 150 General Psychology	HST/PBT/CTAA/CTAS	X	X	
		SAB 110 Substance Abuse Overview	HST	X		
		SAB 210 Substance Abuse Counseling	HST	X		

				Online	Seated	Hybrid
CTE Hunting & Shooting Sports Mgt		BUS 110 Intro to Business	SSM/BA	X	X	
		SSM 110 Intro to Shooting Sports	SSM	X		
		SSM 111 Gun Shop Management	SSM	X		
		SSM 112 Sports Hunting	SSM	X		
		SSM 114 Shooting Sports Management	SSM	X		

				Online	Seated	Hybrid
CTE Industrial Systems Tech		BPR 111 Blueprint Reading	IST		X	
	#	ELC 112AB DC/AC Electricity (Part A) - $25 course fee required	EST/IST		X	
	*	ELC 112BB DC/AC Electricity (Part B) (prereq = ELC 112AB)	EST/IST		X	
	Students must complete both 112AB and 112BB to receive credit for the course.					
		ELC 126 Electrical Computations	IST		X	
		MEC 111 Machine Processes	IST		X	

				Online	Seated	Hybrid
CTE Medical Assisting	*	BIO 165 Anatomy & Physiology I	MA		X	X
		* Prereq = English/Reading scores must be high enough to place student **out of** the DRE 097 developmental English/Reading course.				
	*	BIO 166 Anatomy & Physiology II (prereq = BIO 165)	MA		X	X
		MED 118 Medical Law and Ethics	MA	X		
		MED 121 Medical Terminology I	MA	X	X	
	*	MED 122 Medical Terminology II (prereq = MED 121)	MA		X	X
				Online	**Seated**	**Hybrid**
CTE Nurse Aide		NAS 101 Nurse Aide I	NA	Instructional methods to be determined.		
		NAS 102 Nurse Aide II	NA			
				Online	**Seated**	**Hybrid**
CTE Office Admin	*	OST 130 Comprehensive Keyboarding	OA	X	X	
		OST 134 Text Entry & Formatting (prereq = OST 130 or OST 131)	OA	X	X	
		OST 136 Word Processing	OA	X		
		OST 164 Texting Editing Applications	OA	X		
	*	OST 289 Administrative Office Management (prereqs = OST 164 and either OST 134 or OST 136)	OA	X		
				Online	**Seated**	**Hybrid**
CTE Phlebotomy		*Program pending approval by NCCCS State Board*				
		PBT 100 Phlebotomy Technology	PBT	Instructional methods to be determined.		
		PBT 101 Phlebotomy Practicum	PBT			
		PSY 150 General Psychology	PBT/HST/CTAA/CTAS			
				Online	**Seated**	**Hybrid**
CTE Taxidermy: Fish	#	TXY 101AB Fish Taxidermy (Part A) - $25 course fee required	TXYF		X	
	*#	TXY 101BB Fish Taxidermy (Part B) - $25 course fee required	TXYF		X	
		Students must complete both 101AB and 101BB to receive credit for the course.				
				Online	**Seated**	**Hybrid**
CTE Taxidermy: Mammal	#	TXY 103AB Mammal Taxidermy (Part A) - $25 course fee required	TXYM		X	
	*#	TXY 103BB Mammal Taxidermy (Part B) - $25 course fee required	TXYM		X	
		Students must complete both 103AB and 103BB to receive credit for the course.				
	*	Prerequisite or Corequisite course required				
	#	Course fee required				
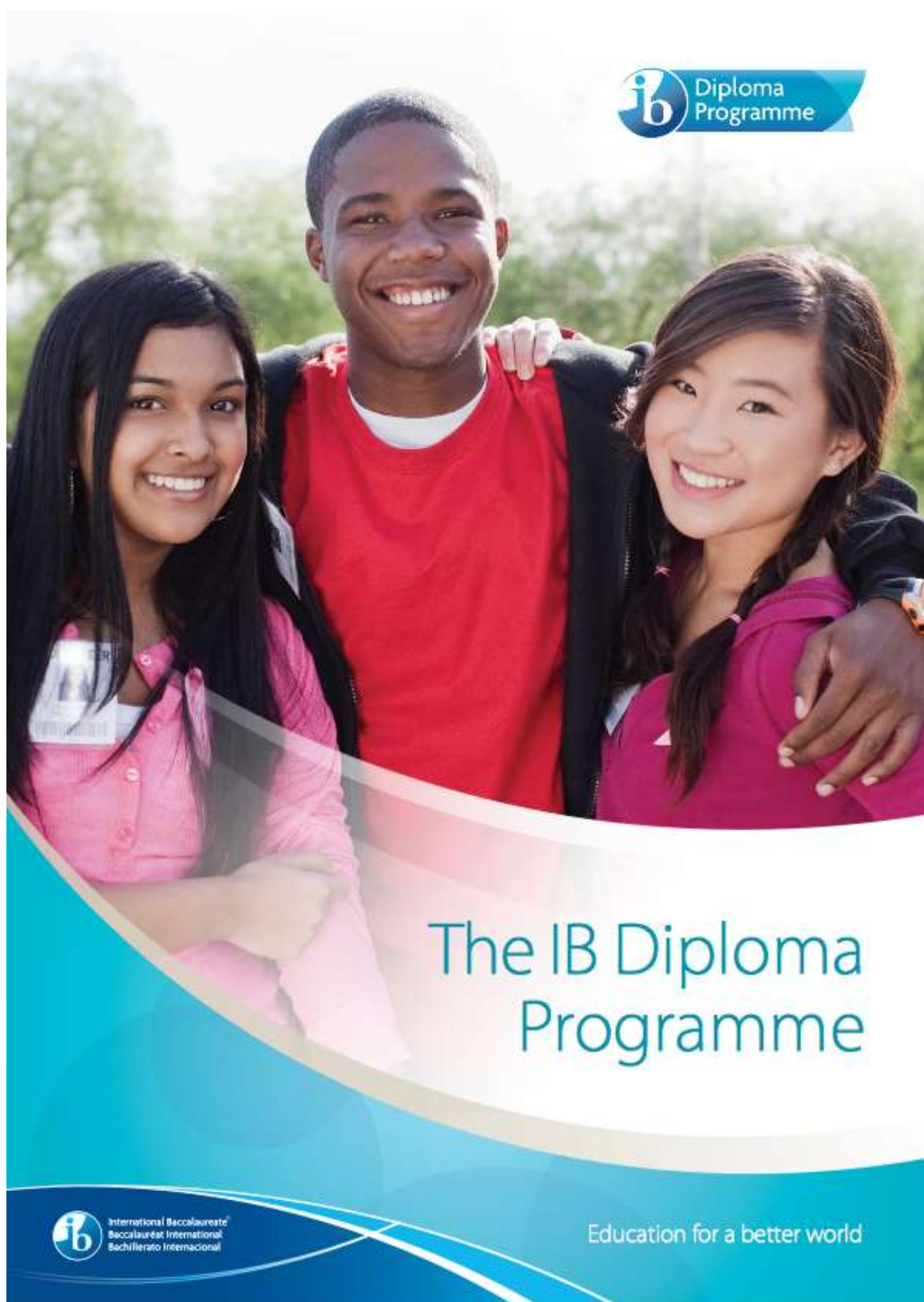
Diploma Programme

The IB Diploma
Programme

International Baccalaureate
Baccalauréat International
Bachillerato Internacional

Education for a better world

The Diploma Programme: preparing students for success in higher education and to be active participants in a global society

What is an IB education?

The IB continuum of international education for 3 to 19 year olds is unique because of its academic and personal rigour. We challenge students to excel in their studies and in their personal growth. We aim to inspire a quest for learning throughout life that is marked by enthusiasm and empathy.

The IB aspires to help schools develop well-rounded students with character who respond to challenges with optimism and an open mind, are confident in their own identities, make ethical decisions, join with others in celebrating our common humanity and are prepared to apply what they learn in real-world, complex and unpredictable situations.

The IB offers high-quality programmes of international education that share a powerful vision. Informed by the values described in the learner profile, an IB education:

- focuses on learners - the IB's student-centred programmes promote healthy relationships, ethical responsibility and personal challenge
- develops effective approaches to teaching and learning - IB programmes help students to develop the attitudes and skills they need for both academic and personal success
- works within global contexts - IB programmes increase understanding of languages and cultures, and explore globally significant ideas and issues
- explores significant content - IB programmes offer a curriculum that is broad and balanced, conceptual and connected.

IB learners strive to become inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced, and reflective. These attributes represent a broad range of human capacities and responsibilities that go beyond intellectual development and academic success.

What is the IB Diploma Programme (DP)?

The IB Diploma Programme (DP) is an academically challenging and balanced programme of education with final examinations that prepares students, aged 16 to 19, for success at university and life beyond. It has been designed to address the intellectual, social, emotional and physical well-being of students. The programme has gained recognition and respect from the world's leading universities.

The Diploma Programme prepares students for effective participation in a rapidly evolving and increasingly global society as they:

- develop physically, intellectually, emotionally and ethically
- acquire breadth and depth of knowledge and understanding, studying courses from six subject groups
- develop the skills and a positive attitude towards learning that will prepare them for higher education
- study at least two languages and increase understanding of cultures, including their own

- make connections across traditional academic disciplines and explore the nature of knowledge through the programme's unique theory of knowledge course
- undertake in-depth research into an area of interest through the lens of one or more academic disciplines in the extended essay
- enhance their personal and interpersonal development through creativity, action and service.

The curriculum

IB Diploma Programme students must choose one subject from each of the five groups (1 to 5), ensuring breadth of knowledge and understanding in their best language, additional language(s), the social sciences, the experimental sciences and mathematics. Students must also choose either an arts subject from group 6, or a second subject from groups 1 to 5.

DP subjects can be taken at higher level or standard level.

At least three and not more than four subjects are taken at higher level (240 teaching hours), while the other subjects are taken at standard level (150 teaching hours). Students can study and take examinations, in English, French or Spanish.

Two DP subjects are classified as interdisciplinary subjects and so satisfy the requirements of more than one subject group:

- Literature and performance - group 1 and group 6
- Environmental systems - group 3 and group 4

In addition to disciplinary and interdisciplinary study, the Diploma Programme features three core elements that broaden students' educational experience and challenge them to apply their knowledge and skills.

The Diploma Programme core

- **The extended essay** asks students to engage in independent research through an in-depth study of a question relating to one of the DP subjects they are studying. The world studies extended essay option allows students to focus on a topic of global significance which they examine through the lens of at least two DP subjects.

- **Theory of knowledge** develops a coherent approach to learning that unifies the academic disciplines. In this course on critical thinking, students inquire into the nature of knowing and deepen their understanding of knowledge as a human construction.

- **Creativity, action, service (CAS)** involves students in a range of activities alongside their academic studies throughout the Diploma Programme. Creativity encourages students to engage in the arts and creative thinking. Action seeks to develop a healthy lifestyle through physical activity. Service with the community offers a vehicle for new learning with academic value. The three strands of CAS enhance students' personal and interpersonal development through experiential learning and enable journeys of self-discovery.

IB DIPLOMA PROGRAMME

STUDIES IN LANGUAGE AND LITERATURE

LANGUAGE ACQUISITION

THEORY OF KNOWLEDGE

KNOWLEDGE

APPROACHES TO TEACHING

THE IB LEARNER PROFILE

EXTENDED ESSAY

INDIVIDUALS AND SOCIETIES

MATHEMATICS

SCIENCES

APPROACHES TO LEARNING

CREATIVITY, ACTION, SERVICE

THE ARTS

INTERNATIONAL-MINDEDNESS

Diploma Programme subject groups

Group 1 – Studies in language and literature

Language A: literature – *55 languages offered*
Language A: language and literature – *16 languages offered*
Literature and performance (also group 6) – *3 languages offered*

Group 2 – Language acquisition

Language B – *23 languages offered*
Language ab initio – *12 languages offered*
Classical languages – *2 languages offered*

Group 3 – Individuals and societies

- Business and management
- Economics
- Geography
- History
- Information technology in a global society
- Philosophy
- Psychology
- Social and cultural anthropology
- World religions (SL only)
- Environmental systems and societies (also group 4)

Group 4 – Sciences

- Biology
- Chemistry
- Design technology
- Environmental systems and societies (also group 3)
- Physics
- Computer science
- Sports, exercise and health science (SL only)

Group 5 – Mathematics

- Mathematical studies SL
- Further Mathematics HL
- Mathematics SL
- Mathematics HL

Group 6 – The arts

- Music
- Theatre
- Visual arts
- Dance
- Film
- Literature and performance (also group 1)

Diploma Programme courses online

Students can enrol in a range of authorized DP courses online offered via their IB World School through Pamoja Education Ltd.

Assessment

Students take written examinations at the end of the programme, which are marked by external IB examiners. Students also complete assessment tasks in the school, which are either initially marked by teachers and then moderated by external moderators or sent directly to external examiners.

The marks awarded for each course range from 1 (lowest) to 7 (highest). Students can also be awarded up to three additional points for their combined results on theory of knowledge and the extended essay. The diploma is awarded to students who gain at least 24 points, subject to certain minimum levels of performance across the whole programme and to satisfactory participation in the creativity, action, service requirement. The highest total that a Diploma Programme student can be awarded is 45 points.

Assessment is criterion-related, which means student performance is measured against pre-specified assessment criteria based on the aims and objectives of each subject curriculum, rather than the performance of other students taking the same examinations. The range of scores that students have attained remains statistically stable, and universities value the rigour and consistency of Diploma Programme assessment practice.

"At King Edward's School we made the decision to move to a solely IB Diploma curriculum because we believed that it would provide a really challenging education and would be the best preparation for university study".

John Claughton, Chief Master, King Edward's School, Birmingham UK.

Quality assurance and professional development

Any school, or group of schools, wishing to offer one or more IB programmes as an IB World School must first be authorized. The requirements are the same for all schools, and the procedure is designed to ensure that schools are well prepared to implement the programme(s) successfully. All IB World Schools are required to participate in an ongoing process of review and development, using the same programme standards and practices.

As part of its ongoing commitment to the development of a highly skilled global learning community, the IB provides a wide range of high-quality professional development opportunities to help new, experienced and expert school leaders and educators understand, support, and successfully deliver IB programmes reflecting IB standards and practices.

The IB Mission

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end, the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

- Become an IB student
- Teach at an IB World School
- Become an IB World School
- Volunteer or work for the IB

Support our mission and join the IB community at http://www.ibo.org or contact your IB regional office:

IB Africa, Europe and Middle East   ibaem@ibo.org
IB Asia-Pacific   ibap@ibo.org
IB Americas   iba@ibo.org

Appendices- Miscellaneous Background Information

The following section provides miscellaneous background information. These are included for informational purposes so the reader can frame and understand all aspects of the high school curriculum requirements. Included here are:

I.	High School Graduation Requirements
II.	Typical High School Course Matrix
III.	UNC System Minimum Course Requirements
IV.	Testing Requirements
V.	Promotion Requirements
VI.	Miscellaneous information regarding GPA and Class Ranking
VII.	Course Types and Details
VIII.	Exceptional and Academically Gifted Programs
IX.	Early Graduation
X.	Credit Recovery
XI.	Online and Distance Learning Courses
XII.	North Carolina School of Science and Math Pathways and Offerings
XIII.	North Carolina Virtual Public Schools
XIV.	Credentialing Opportunities

High School Graduation Requirements

Every high school student must meet state course and credit requirements in addition to any local requirements in order to graduate from high school. To view the state course and credit requirements, look below for the section that matches when a student entered ninth grade for the first time.

Refer to State Board of Education policy http://sbepolicy.dpi.state.nc.us for a list of AP/IB, Dual enrollment and other courses that my satisfy certain requirements per State Board of Education Policy.

School counselors are available to answer any questions you may have about what is needed to reach the goal of high school graduation.

	For Ninth Graders Entering in 2012-13 and Later Two Courses of Study Leading to One Diploma	
CONTENT AREA	**FUTURE-READY CORE** Course of Study Requirements	**FUTURE-READY OCCUPATIONAL** Course of Study Requirements
English	**4 Credits** I, II, III, IV or a designated combination of 4 courses	**4 Credits** English I*, II*, III*, IV*
Mathematics	**4 Credits** Math I, II, III 4th Math Course to be aligned with the student's post high school plans *A student, in some circumstances, may have an alternative math course sequence as outlined under State Board of Education policy or due to the transition in standards. Please see your school counselor for more details.*	**3 Credits** Introduction to Mathematics Math I* Financial Management
Science	**3 Credits** A physical science course, Biology, Earth/Environmental Science	**2 Credits** Applied Science Biology*
Social Studies	**4 Credits** American History: The Founding Principles, Civics and Economics, World History, American History I: American History II **OR** AP US History**, IB History of the Americas**, additional social studies course**	**2 Credits** American History I* American History II*
World Languages	Not required for high school graduation. A two-credit minimum is required for admission to a university in the UNC system.	Not required
Health and Physical Education	**1 Credit** Health/Physical Education	**1 Credit** Health/Physical Education

See Footnotes on page 2

I

CONTENT AREA	FUTURE-READY CORE Course of Study Requirements	FUTURE-READY OCCUPATIONAL Course of Study Requirements
	Continued From Previous Page	
Electives or other requirements***	**6 Credits required** **2 elective credits of any combination from either:** – Career and Technical Education (CTE) – Arts Education – World Languages **4 elective credits strongly recommended (four course concentration) from one of the following:** – Career and Technical Education (CTE)**** – JROTC – Arts Education (e.g. dance, music, theater arts, visual arts) – Any other subject area (e.g. social studies, science, mathematics, English)	**6 Credits** Occupational Preparation I, II, III, IV***** Elective credits Additional requirements: – Completion of IEP Objectives – Career Portfolio
Career/Technical		**4 Credits** Career/Technical Education electives
Arts Education (Dance, Music, Theatre Arts, Visual Arts)		
Total	22 Credits plus any local requirements	22 Credits plus any local requirements

* OCS Pathway courses aligned with North Carolina Standard Course of Study in English I, II, III, IV; Math I and American History I, II, and Biology.

** A student who takes AP US History or IB History of the Americas instead of taking American History I and American History II must also take an additional elective social studies course in order to meet the four credits requirement.

*** Examples of electives include Arts Education, JROTC and other courses that are of interest to the student.

**** For additional information on CTE courses that meet requirements for selected Courses of Study, refer to the CTE Clusters chart located at:
http://www.ncpublicschools.org/docs/cte/standards/careerclusters2012.pdf.

***** For students entering 9th grade in 2013-14 or earlier, completion of 300 hours of school-based training, 240 hours of community-based training, and 360 hours of paid employment. For students entering 9th grade in 2014-15 or later, completion of 150 hours of school-based training, 225 hours of community-based training, and 225 hours of paid employment.

2

Differentiated Diploma

The Board is committed to every student being provided the necessary tools to become productive citizens, to gain meaningful employment and to further his/her education. A Differentiated Diploma Pathway gives an option to students who are at risk of dropping out of school. This pathway allows students with specific eligibility requirements to graduate with a North Carolina Future-Ready Core Diploma of 21 or 22 credits. Differentiated Diploma Pathway candidates would be students who demonstrate at-risk characteristics that may threaten their potential to graduate. See your school counselor for Candidacy Requirements, Referral Process, and applicable forms. (Policy 3460-R)

Local Requirements

All students must meet North Carolina testing and exit standards requirements in addition to course requirements. Montgomery County Schools requires students entering high school for the 2011-2012 school year and beyond to complete 28 credits for graduation.

Permission to Register: Each school has courses that require prerequisite courses, special skills, or are limited in class size by law or available resources (i.e. computer lab, technology class). If a student wishes to be considered for enrollment in one of these courses, he/she should get a registration sheet from the counseling office.

Typical High School Course Matrix

TEACHER	SEM 1 1ST BLOCK	SEM 1 2ND BLOCK	SEM 1 3RD BLOCK	SEM 1 4TH BLOCK	SEM 2 1ST BLOCK	SEM 2 2ND BLOCK	SEM 2 3RD BLOCK	SEM 2 4TH BLOCK
ENGLISH DEPARTMENT								
Teacher 1	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher	H. English I (18)	PLAN	H. English IV (30)	English IV (29)
Teacher 2	English III (20)	H. English IV (33)	H. English IV (29)	PLAN	H. English III (33)	English IV (24)	PLAN	English III (19)
Teacher 3	Read 180	PLAN	English II (20)	English II (31)	English I (13)	PLAN	English I (36)	H. English II (11)
Teacher 4	PLAN	English III (12)	English II (29)	H. English II (16)	PLAN	H. English III (19)	English III (41)	H. English III (12)
Teacher 5	English II (31)	English I (33)	H. English I (34)	PLAN	PLAN	H. English II (29)	English II (35)	H. English I (24)
MATHEMATICS DEPARTMENT								
Teacher 6	Shared Teacher	PLAN	AVID (H. Math II) (22)	Math III (32)	Math III (36)	AVID (H. Math II) (22)	H. Math II (10)	PLAN
Teacher 7	Foundations/MATH 1 (26)	Foundations (33)	PLAN	Foundations (38)	Math I (7)	Math I (30)	Math I (38)	PLAN
Teacher 8	Foundations (20)	PLAN	SREB (36)	Foundations (40)	Math I (6)	Math I (30)	PLAN	Math I (35)
Teacher 9	Discrete (32)	H. Math III (32)	Pre-Calculus (26)	PLAN	H. Math II (19)	PLAN	Discrete (35)	Math III (27)
Teacher 10	Math II (29)	Math II (31)	PLAN	Math I (28)	Math II (37)		Math II (33)	H. Math III (7)
SCIENCE DEPARTMENT								
Teacher 11	AVID (Phys Science) (23)	PLAN	Physical Science (21)	Physical Science (25)	AVID (Science) (23)	Physical Science (32)	Physical Science (12)	PLAN
Teacher 12	Biology (24)	Biology (29)	PLAN	H. Earth Science (23)	Biology (31)	Biology (23)	PLAN	AP Envirn (21)
Teacher 13	Earth Science (22)	Physical Science (20)	Earth Science (33)	PLAN	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
Teacher 14	H. Biology (16)	PLAN	Biology (24)	H. Biology II / AP (27)	PLAN	AP Biology (27)	H. Biology (11)	H. Biology (17)
Teacher 15	Earth Science (24)	PLAN	Chemistry (2)	H. Chemistry (31)	PLAN	H. Earth Science (15)	H. Chemistry (21)	H. Chemistry (18)
SOCIAL STUDIES DEPARTMENT								
Techer 16	Civics (20)	Civics (31)	H. Civics (24)	PLAN	Civics (26)	Civics (24)	H. Civics (26)	PLAN
Techer 17	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher	PLAN	World History (20)	World History (25)	Civics (40)
Techer 18	Amer History I (24)	Amer History I (21)	PLAN	H. Amer History I (17)	Amer History II (25)	Amer History II (29)	H. Amer History II (19)	PLAN
Techer 19	World History (19)	PLAN	Amer History I (36)	H. World History (9)	World History (29)	PLAN	Amer History II (22)	H. World History (16)
Techer 20	PLAN	H. Amer History I (24)	H. Amer History I (26)	Amer History I (14)	H. Amer History II (21)	H. Amer History II (27)	PLAN	Amer History II (15)
Techer 21	PLAN	Bible History I (11)	Bible History I (31)	Bible History II / III (4)	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
CTE DEPARTMENT								
Teacher 22	Health Science II (10)	Health Science I (17)	PLAN	Health Science I (20)	Nursing Fundamentals (TBD)	Nursing Fundamentals (TBD)	PLAN	Health Science II (16)
Teacher 23	Foods I (23)	Foods I (21)	Foods I (18)		Foods I (23)	Foods I (21)	PLAN	Foods II
Teacher 24	PLAN	Intro to Auto Serv (24)	Intro to Auto Serv (25)	Auto Service I (16)	Intro to Auto Serv (25)	PLAN	Auto Service II (16)	Auto Service I (25)
Teacher 25	Fire Fighting II/III (17)	Fire Fighting I (25)	PLAN	Fire Fighter I (25)	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
Teacher 26	PLAN	Agri Apps (29)	Animal Science I (27)	Agri Apps (30)	Ag Mech I (29)	Ag Mech I (13)	Animal Science II (11)	PLAN
Teacher 27	Masonry II / III (24)	PLAN	Masonry I (29)	Masonry I (23)	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
Teacher 28	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher	PLAN	Cabinet I (24)	Cabinet I (24)	Cabinet II / III (21)
Teacher 29	MaWD (27)	MaWD (22)	PLTW Engineering (13)	PLAN	MS Word & PPT (26)	MS Word & PPT (26)	MS Word & PPT (21)	PLAN
Teacher 30	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher	Career Manage (28)	PLAN	Personal Finance (22)	Career Manage (30)
PHYSICAL EDUCATION DEPARTMENT								
Teacher 31	Health & PE (M) (12)	Health & PE (M) (23)	PLAN	Sports Management (18)	Health & PE (M) (14)	Health & PE (M) (31)	Sports Management (6)	PLAN
Teacher 32	Weight Training (30)	Weight Training (27)	Weight Training (19)	PLAN	PLAN	Weight Training (21)	Weight Training (12)	Adv PE (27)
Teacher 33	Weight Training (30)	Yearbook (20)	PLAN	Adv PE (19)	Weight Training (29)	Yearbook (12)	H. World History (38)	PLAN
Teacher 34	Health & PE (F) (13)	Health & PE (F) (22)	Wt Training (F) (28)	PLAN	Health & PE (F) (15)	Health & PE (F) (26)	PLAN	Wt Training (F) (30)
FOREIGN LANGUAGE DEPARTMENT								
Teacher 35	Spanish III / IV (8)	PLAN	Spanish II (9)	Spanish I (17)	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
Teacher 36				Latin I (8)	Shared Teacher	Shared Teacher	Shared Teacher	Latin II (4)
Teacher 37	French I (21)	PLAN	French I (25)	French I (19)	French II (23)	PLAN	French II/III (21)	French II (18)
Teacher 38	PLAN	Spanish I (27)	Spanish I (30)	Spanish I (14)	PLAN	Spanish II (27)	Spanish II (23)	Spanish II (29)
FINE & APPLIED ARTS DEPARTMENT								
Teacher 39	Shared Teacher	Shared Teacher	Shared Teacher	Marching Band (9)	Shared Teacher	Shared Teacher	Shared Teacher	Concert Band (7)
Teacher 40	PLAN	Art (Prof/Adv) (9)	Art (Int) (23)	Art (Beg) (30)	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
Teacher 41	Dance (Int) (30)	Dance (Beg) (31)	Dance (Prof/Adv) (16)	PLAN	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher
Teacher 42	Shared Teacher	Shared Teacher	Shared Teacher	Shared Teacher	Theatre I (32)	PLAN	Theatre I (26)	Theatre II / III (21)
AFJROTC DEPARTMENT								
Teacher 43	ROTC (20)	ROTC (12)	PLAN	ROTC (16)	ROTC (9)	PLAN	ROTC (15)	ROTC (33)
EC DEPARTMENT								
EC Teacher 1	PLAN	Teacher	Teacher	Teacher	PLAN	Teacher	Teacher	Teacher
EC Teacher 2	PLAN	Occupational Course of Study	Occupational Course of Study	Occupational Course of Study	PLAN	Occupational Course of Study	Occupational Course of Study	Occupational Course of Study
EC Teacher 3	Teacher	Teacher	Teacher	PLAN	PLAN	Teacher	Reynolds/Shoffner	Teacher
ESL DEPARTMENT								
ESL Teacher 1	Shared Teacher	Shared Teacher	Shared Teacher	ESL Inclusion	Shared Teacher	Shared Teacher	Shared Teacher	ESL Inclusion
ESL Teacher 2	ESL Inclusion	Sheltered Instruction (5)	ESL Inclusion	PLAN	ESL Inclusion	ESL Inclusion	ESL Inclusion	PLAN
DISTANCE LEARNING								
Distance Learning	DL	DL	DL	DL	DL	DL	DL	DL
Distnace Learning	SEED (14)	Credit Recovery	Distance Learning	Latin I	SEED (28)	Credit Recovery	Distance Learning	Latin II
MEDIA CENTER								
Media	Shared Teacher	Shared Teacher	Shared Teacher	Media Asst (2)	Shared Teacher	Shared Teacher	Shared Teacher	Media Asst (2)
CIS	CIS	CIS	JCPC (4)	CIS	CIS	CIS	JCPC (3)	CIS
NCSSM					Forensics			
DLC		Tech (1)		Tech (1)	Tech (2)	Tech (3)	Tech (2)	
PLANNING	9	10	10	11	12	9	7	10

UNC Minimum Course Requirements

For Undergraduate Admission to the 16 Campuses

College Foundation of North Carolina

What Students Need to Know about UNC Minimum Course Requirements

Listed to the right are the minimum course requirements for students entering the University of North Carolina. The University of North Carolina is made up of 16 campuses, which are listed in the box at right. The minimum course requirements are established by the Board of Governors of the University of North Carolina, although individual institutions may require other courses in addition to the minimum requirements. For some transfer students and students who graduated from high school prior to 1990, special considerations have been made. Check with each institution for additional information specific to that campus.

UNC Minimum Course Requirements

Six course units* in language, including
- four units in English emphasizing grammar, composition, and literature, and
- two units of a language other than English.

Four course units of mathematics, in any of the following combinations:
- algebra I and II, geometry, and one unit beyond algebra II,
- algebra I and II, and two units beyond algebra II, or
- integrated math I, II, and III, and one unit beyond integrated math III.

(The fourth unit of math affects applicants to all institutions except the North Carolina School of the Arts.) *It is recommended that prospective students take a mathematics course unit in the 12th grade.*

Three course units in science, including
- at least one unit in a life or biological science (for example, biology),
- at least one unit in physical science (for example, physical science, chemistry, physics), and
- at least one laboratory course.

Two course units in social studies, including one unit in U.S. history. An applicant who does not have the unit in U.S. history may be admitted on the condition that at least three semester hours in that subject will be passed by the end of the sophomore year.

* *"Course units" as defined in these requirements may include those high school-level courses taken and passed by an applicant after graduating from high school, as well as those taken while enrolled as a high school student. For some transfer students and students who graduated from high school prior to 1990, special considerations have been made.*

The 16 Campuses of the University of North Carolina

Appalachian State University
East Carolina University
Elizabeth City State University
Fayetteville State University
North Carolina Agricultural and Technical State University
North Carolina Central University
North Carolina School of the Arts
North Carolina State University
University of North Carolina at Asheville
University of North Carolina at Chapel Hill
University of North Carolina at Charlotte
University of North Carolina at Greensboro
University of North Carolina at Pembroke
University of North Carolina at Wilmington
Western Carolina University
Winston-Salem State University

Some additional, helpful college planning publications:

- "Writing Your Admissions Essay"
- "College Entrance Tests"
- "High School Planner"

Publications are available for downloading from CFNC.org or by calling the toll-free number.

New qualifications are published periodically. Please check here for the most up-to-date information. http://www.northcarolina.edu/aa/admissions/requirements.htm

Testing Requirements

This section in included for reference so that the reader has a comprehensive understanding of all aspects of the curriculum.

End-of-Course Exams
Currently, three end-of-course exams are required by the North Carolina Department of Public Instruction. They are English II, Algebra I, and Biology.

Career & Technical Education Tests
The Career and Technical Education (CTE) Program of Study mandates testing in all CTE classes. Students are required to take the test, which is administered as a final exam and counts 25 percent of the student's final grade.

NC Final Exams
Some other non-EOC and non-CTE courses require a NC Final Exam. These exams cover the essential standards for that course. The Final Exam counts as 25% of the student's final grade.

ACT WorkKeys

The ACT WorkKeys assessment is administered to seniors who are Career and Technical Education (CTE) concentrators. This is defined as students who complete a 4 course sequence in a defined career cluster with one of the classes being a second level completer course. The WorkKeys test measures include Locating Information, Reading for Information, and Applied Mathematics.

ACT

The ACT College Admissions Assessment is given to all students in the 11th grade. The ACT is designed to assess what high school students have learned in school. The multiple-choice tests cover four skill areas: English, mathematics, reading, and science. The optional Writing Test measures skill in planning and writing a short essay. An alternate assessment is provided for students who qualify.

Promotion and Graduation Requirements:
To be a sophomore: 6 credits
To be a junior: 12 credits
To be a senior: 18 credits

Special Notes:
- ***Special exceptions will be made for students who transfer in from a school system with different graduation requirements.***
- Students graduate under the state and local requirements, which were in place when they entered the ninth grade.

High School Grades & GPA

MCS high schools grade on a percentage basis as follows: The conversion of grades to quality points is standardized. Implicit is a conversion of percentage grades to letter grades according to the following widely used scale: 90-100 = A; 80-89 = B; 70-79= C; 60-69 = D; $\leq$ 59 = F. Grades and the corresponding number of quality points are shown below. Standard scale — Numeric Grades with a letter grade legend.

90-100 = 4.0	80-89 = 3.0	70-79 = 2.0	60-69 = 1.0	$\leq$ 59 = 0.0	WF = 0.0
FF = 0.0	WP = 0.0	INC = 0.0	AUD = 0.0	P = 0.0	

Class Rank & GPA

High schools compile class rankings at the end of each semester and make the information available to the student, his or her parents or guardians, and to other institutions, at the request of the student or his or her parents or guardians. All grades for transfer courses taken at accredited institutions will be included in a student's class rank and GPA, including the state weighted grades for honors and advanced placement (AP) courses. See the appendix for a chart outlining how your GPA is calculated.

Credit By Demonstrated Mastery

"Credit by demonstrated mastery" (CDM) is the process by which school districts shall, based upon a body-of-evidence, award a student credit in a particular course without requiring the student to complete classroom instruction. "Mastery" is defined as a student's command of course material at a level that demonstrates a deep understanding of the content standards and application of knowledge. This is a semester long process and requires that students not be enrolled in the course they are wishing to complete by the CDM process.

Course Types and Details

	Regular Courses	Honor Courses	Advanced Placement Courses	Career and College Promise Courses
Fees	no	no	AP Test Fee may apply	no
Prerequisites	May apply	Yes	Yes	See page 21
Quality Points for students entering 15-16	4	4.5	5	College Pathway= 5 Career and Technical Pathway=4
Quality Points for Junior and Seniors	4	5	6	College Pathway= 5 Career and Technical Pathway=4
Online or Face to face	Both	Both	Both	Both
Testing Requirement	EOC and Final Exam may be required	EOC and Final Exam may be required	AP Test highly recommended	Final exam may be required by the instructor
College Credit	no	no	Yes- if AP test is passed	Yes
Grades	Reported on HS transcript	Reported on HS transcript	Reported on HS transcript	Reported on HS and college transcript
Benefits	Meets HS graduation requirements	Meets HS graduation requirements plus extra quality value	Meets HS graduation requirements, added quality value, and may lead to college credit upon passing the AP exam	Meets HS graduation requirements, added quality value, earns college credit, books and tuition provided for free

Home School Credits
Students who enter a Montgomery County high school with credits from home school must schedule a conference with the guidance department at the appropriate school. Academic counselors can help parents and students understand credits that will or will not be accepted.

Schedule Changes & Drop Policy
Once students have selected their courses in the spring, they are expected to pursue that course of study in the fall. Course changes may not be permitted due to enrollment numbers. In accordance with state policy, any course dropped after the first five days of each semester will result in the course being recorded on the student's transcript with a grade of Withdrawal Passing or Withdrawal Failing. Also, N.C. guidelines regarding courses with State mandated end-of-course tests do not allow course changes after the 10th day of the course.

Withdrawing and Transferring
A student who plans to transfer to another high school must get a withdrawal form from the school's counseling center and take it to each teacher so that all grades and absences can be recorded. The completed withdrawal form is required for entry to the school where the student is transferring.

Courses Taken Outside Montgomery County Schools
Students who transfer from outside Montgomery County Schools receive credit for all courses taken in accredited high schools. If a MCS student wishes to participate in a special program which carries high school credit either during the school year or in the summer, he or she must obtain permission from the school.

Advanced Placement (AP) and Honors Courses

Montgomery County high schools offer a number of Advanced Placement (AP) and Honors courses. These courses are designed for students who are ready for the rigors of college level work and are willing to dedicate significant time outside of class to be academically successful at a high level. These classes may require summer reading, after school or weekend labs, and additional review sessions. The courses are not limited to only juniors and seniors. Students are encouraged to begin AP and Honors courses as soon in their high school career as appropriate. AP and Honors courses may only be offered through online, virtual streaming, off campus, or other hybrid methods as determined by enrollment. In some cases, a Career and College Promise course may be substituted.

Students are encouraged to take the most rigorous courses offered in their schools in preparation for AP courses. To be granted college credit, students must sign up and successfully pass the College Board's AP test for each AP course taken. College credit may be earned by attaining the required scores on the national AP exams. Students should consult with their chosen college to determine the test grade required to receive credit at that institution. Standards vary across the state and the nation.

Exceptional Children Program

Exceptional children are learners who, because of permanent or temporary mental, physical, or emotional disabilities, need specially designed instruction. These students are unable to have their educational needs met in a regular class without specially designed instruction and related services.

For most exceptional learners, the curriculum follows the regular education curriculum. Educators use certain modifications of instructional programs, creative instructional approaches, and individualized programming to meet students' needs. The Individualized Education Plan (IEP) for exceptional children states in writing the special curricular offerings to be provided to each exceptional learner. The Montgomery County School System offers courses in English, math, science, and social studies for exceptional students whose IEP requires a more restrictive setting than a resource program or consultative service within the regular education courses. Certified special educators provide these services.

Academically Intellectually Gifted Program

Honors, AP, and college credit courses are available. Participation in clubs such as the National Honor's Society and Beta Club is encouraged. Governor's School is an opportunity for academically gifted students.

High School Early Graduation

Any student who plans to graduate early from Montgomery County Schools must successfully complete regular graduation requirements including (but not limited to): End of Course exams, high school exit standards, and state mandated competency requirements.

Any student, who wishes to graduate early, must notify their counselor at the time of registration during their junior year.

Credit Recovery

The term "credit recovery" will be used to refer to a block of instruction that is less than the entirety of the standard course. Credit recovery, therefore, delivers a subset of curriculum 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. Credit recovery only serves to recover the credit toward graduation and does not affect a student's grade point average (GPA). Therefore, the credit recovery course will appear on the transcript with either a "P" for pass or "F" for fail. Neither of these marks will affect the student' GPA. If the credit recovery course is passed, then the transcript will show a unit of credit for the course, which will count toward graduation. The record of the student originally failing the course will remain on the transcript with the failing grade associated with it and will continue to impact the student's GPA. **Testing may be required.**

Online Learning Opportunities

Montgomery County Schools offers additional learning opportunities through a variety of sources. Over the next few pages, you will find important information about how you can extend your learning.

North Carolina School of Science and Mathematics
Distance Education Course Descriptions
All Courses require student access to a computer and internet during class

Sample Streaming Schedule- These are elective courses.

1st Block 8:05 a.m. – 9:15 a.m.	2nd Block 9:50 a.m. – 11:00 a.m.	3rd Block 11:40 a.m. – 12:50 p.m.	4th Block 1:30 p.m. – 2:40 p.m.
Honors Forensic Science	Honors Forensic Science	Honors Forensic Science	Honors Physics
Honors Aerospace Engineering	Honors Statistics**	Honors Calculus AB**	Honors Genetics and Biotechnology
	Honors Aerospace Engineering	Honors Genetics and Biotechnology	Honors African American Studies **(1:45 p.m. – 2:55 p.m.)**

** Indicates a two-course sequence. Students must register for the fall and spring courses in the sequence.

2nd Semester

1st Block 8:05 a.m. – 9:15 a.m.	2nd Block 9:50 a.m. – 11:00 a.m.	3rd Block 11:40 a.m. – 12:50 p.m.	4th Block 1:30 p.m. – 2:40 p.m.
Honors Forensic Science	Honors Forensic Science	AP Calculus AB**	Honors Physics
Honors Aerospace and Engineering	AP Statistics**	Honors Forensic Science: Anthropology	Honors Genetics and Biotechnology
	Foundations of Multivariable Calculus		

** Indicates a two-course sequence. Students must register for the fall and spring courses in the sequence.

About Interactive Videoconferencing (Streaming)

Two-way videoconferencing allows students to see and hear the instructor and the other class participants, wherever they are in the world, in real time.

Schools can set up basic IVC classrooms by using:
- USB microphone, external speakers, Polycom m100 Telepresence software and a laptop connected to a flat-panel monitor or LCD projector.
- Individual students can now participate with an iPad using a free app from Polycom.
- Schools, for $15 a month, can lease software from MCNC called Movi-Jabber. This software can be loaded on a laptop that is equipped with a camera and microphone which will allow 1 or 2 students to participate this way.

Using IVC technology, NCSSM connects with schools all over the world.

Online Courses: NCSSM Online

What is NCSSM Online?

NCSSM Online is a unique, tuition-free two-year program of online learning blended with a host of real-time connections and onsite NCSSM residential activities. NCSSM Online offers a host of rigorous online honors or college level courses parallel to those offered in the NCSSM residential academic program. A unique feature of this two-year program is its design to bring students together for onsite collaborative learning experiences—a vital component of the total NCSSM experience.

The NCSSM Online program is available to the same highly qualified applicants who apply to the NCSSM residential school program. It is designed to expand the NCSSM academic experience beyond the boundaries of the Durham campus to more North Carolina high school students in a virtual environment. This program supplements continued enrollment at a local school, and also will provide for a separate NCSSM transcript for the curriculum taken in the NCSSM Online program.

Students who enroll in these classes will be required to attend an orientation at NCSSM's site in late July.

Note: Enrollment in NCSSM Online courses requires the student to apply and meet all acceptance criteria for NCSSM. While students remain enrolled in their public schools, counselors should not enroll them in online courses for credit at the public school until after they have been accepted into the NCSSM Online Program.

Rigorous Prerequisites apply Check with your guidance counselor for assistance.

MATHEMATICS

- **Applied Finite Math- MA366 (fall)**
- **AP Calculus AB- MA416 and AP Calculus BC- MA426 (two-course sequence)**
- **Applications of Calculus/Vector Functions- MA484 (fall)**
- **Partial Derivatives, Multiple Integrals & Vector Fields (Multivariable Calculus)-MA486 (spring)**

COMPUTATIONAL SCIENCE

- **Introduction to Computational Science- IE340 (fall)**
- **Computational Biology—Bioinformatics- IE380 (spring)**
- **Computational Chemistry- CH412 (fall)**
- **Computational Medicinal Chemistry- CH414 (spring)**
- **Computational Physics- PH412- (spring)**
- **Scientific Programming- CS308- (Spring)**

SCIENCE

- **Advanced Topics in Environmental Science- BI430 and AP Environmental Science- BI432 (two-course sequence)**
- **Agricultural Biotechnology Solutions- Course Number TBD- (spring)**
- **Classical Genetics- BI358 (fall and spring)**
- **AP Physics 1**
- **Climate Change Biology- BI404- (fall)**
- **Energy and Sustainability- IE408- (spring)**
- **Epidemiology- Course Number TBD- (fall and spring)**
- **Forensic Science- IE306- (fall and spring)**
- **Genetics and Biotechnology-BI354- (fall and spring)**
- **"Green" Environmental Geology- IE404- (spring)**
- **Molecular Genetics- BI360- (fall and spring)**
- **Nanotechnology- Course Number TBD- (spring)**

ENGINEERING & TECHNOLOGY

- **Aerospace Engineering- EE364- (spring)**
- **AP Computer Science Principles- Course Number TBD- (fall and spring)**
- **Biomedical Engineering- EE358- (fall and spring)**
- **Civil and Environmental Engineering- EE356- (fall and spring)**
- **Statics and Strenghts of Materials- EE450- (spring)**

HUMANITIES

- **AP Human Geography- EN364- (fall)**
- **Ecocriticism: Literature and Humanism- EN364- (spring)**
- **Introduction to International Relations- SS3589- (fall)**
- **Introduction to Political Thought- SS350- (spring)**
- **Twenty-First Century Media Studies- SS354- (fall)**

North Carolina Virtual Public Schools (NCVPS) Online Courses
The purpose of the North Carolina Virtual Public School (NCVPS) is to provide courses that students are unable to take at their local schools. In other words, NCVPS will provide courses that augment a student's local school's program of study.

For example, a student may wish to take an AP course the local school does not offer. Another student may want to complete the remaining requirement for graduation this semester yet the course needed at the student's school is already full this semester. Another student may be home bound or hospital bound due to illness or injury and wish to remain on schedule to graduate on time. Yet another student may wish to graduate from high school in three years.

All courses will be taught by a certified teacher in the subject certified to teach in North Carolina. Once the on-line course is completed the student receives credit on his or her school transcript
The initial course offerings are for high school students. In subsequent years course offerings will be available for middle school and elementary school students. Course offerings can found at www.ncvps.org.

The authorizing legislation for NCVPS states:
"NCVPS shall be available at no cost to all students in North Carolina who are enrolled in North Carolina's public schools, Department of Defense schools, and schools operated by the Bureau of Indian Affairs."

Note- If a course is offered face to face preference will be given to that course.

Credentialing Opportunities

The following information is included to express the variety of CTE credentialing opportunities available in Montgomery County Schools. This list is ever-evolving as NCDPI expands its scope.

Nurse Aide, Level I Certification (CNA)

A student may acquire Nurse Aide Level I certification at the end of HS II if the student:

1. Successfully completes selected core competencies in **Health Science I, Health Science II, Nursing Fundamentals** and supplemental competencies identified by the state approved Nurse Aide, Level I curriculum.
2. Is taught by a state-approved teacher (Registered Nurse) in a state-approved program. (Teacher for
   72432 is Registered Nurse.)
3. Scores at least 75 in Nursing Fundamentals and Masters Performance Skills.
4. Obtains 65 hours of clinical experience, 40 of which is in a skilled nursing facility. *(No days of clinical experience can be missed if hour requirement is to be met.)
5. Students may be require to set up their own testing dates (outside county) and follow the directions for testing.
6. **The cost to take the CNAI (written and skill) test is $101.00. The student pays for the test. The State requires that the student must have a valid social security card and a valid photo identification from Division of Motor Vehicles to take the test.**

Students' names and demographic data are entered into the North Carolina Nurse Aide Central Nurse Registry that is electronically accessible statewide to potential employers.

Cardiopulmonary Resuscitation (CPR)

All student must be trained in basic CPR, however students may become CPR certified thought the Health Science Department. Ask your counselor to find out how.

American Red-Cross First Aide Certification

Students in the Health Science program also have the opportunity to earn their First Aide certification. Ask you counselor to find out how.

Automotive Service Excellence (ASE)

The Automotive Service Excellence (ASE) certification is administered by the independent, non-profit National Institute for Automotive Service Excellence (ASE). ASE tests and certifies the competence of individual automotive repair technicians to assure consumers and employers of their skills and knowledge. There are numerous reasons why North Carolina Career and Technical Education, Trade and industrial Education (T&I) students should obtain ASE credentials. See your automotive instructor for more information. www.ase.com

Woodwork Career Alliance Certification Passport

The Woodwork Passport is a portable, personal, permanent record of a woodworker's achievements. Developed by industry, our simple system for testing skills and recording the results leads to an industry-recognized credential that stays with an individual throughout their career. As a result, employers can be confident of a woodworker's skills before making an offer, and students and potential employees can be assured that their skills match what employers are looking for.

North Carolina Career Readiness Certificate
WorkKeys- https://www.act.org/workkeys/

North Carolina's Career Readiness Certificate (CRC) is designed to meet the needs of both employers and job seekers in this transitioning economy. NC ranks as the 5th highest state in the nation for the number of CRCs issued. The CRC is a portable skills credential that gives employers and career seekers an objective measure of key workplace skills. It certifies that a person has workplace skills that are transferrable between industry sectors, and across jobs within a sector. The CRC is issued at three levels: Bronze, Silver, and Gold. In North Carolina the CRC is based on three WorkKeys™ assessments: Applied Mathematics, Locating Information, and Reading for Information.

- For employers, the CRC offers a reliable means of determining whether a potential employee has the necessary literacy, numeracy, and problem solving skills to be "job ready."
- For job seekers, the CRC serves as a portable credential that can be more meaningful to employers than a resume citing experience in a different job setting

The WorkKeys System is Nationwide

The WorkKeys Assessment System is rapidly becoming the nationwide standard for measuring and communicating basic workplace skills. It is currently in use in all 50 states in the United States. The WorkKeys System was developed by ACT, Inc., the creators of the college entrance exam.

Note that the WorkKeys System deals with the foundation skills required by all jobs, such as reading, mathematics, teamwork and others. These skills are required by essentially all jobs, from entry-level positions to white-collar professionals, although to different degrees in each job. It allows you to see how much and to what degree of complexity each skill is required in an individual position. The WorkKeys System does not deal with job-specific training. For instance, it would not train or measure the performance of a person to be a printing press operator. However WorkKeys assessments do ensure that a prospective employee could read and understand a typical press operation manual, read the gauges and dials on the machine, work with others in the company, and with the proper guidance become a successful press operator. Without first knowing that a person possesses these basic abilities, efforts to train a potential press operator could be wasted. In this way, WorkKeys assessments help a business to avoid mistakes in hiring and training a person who is not ready to absorb the information presented in the training.

Microsoft Information Technology Academy

North Carolina Public Schools is the first state educational agency in the country to enter into an agreement with Microsoft to pilot the statewide implementation of Microsoft Information Technology Academy (ITA) which provides students with real-world technology skills they need to be successful in college and a career and to earn industry certifications. North Carolina is the largest ITA in the world.

The ITA also allows faculty to participate in professional development and earn industry credentials. The ITA consists of web-based modules and instruction, which allow students to learn Microsoft computer programs, such as Microsoft Word, Excel, PowerPoint and Access, at their own pace within the classroom and at home.

National Center for Construction Education Research (NCCER) CORE Credential

The National Center for Construction Education Research (NCCER) is a not-for-profit 501(c) (3) education foundation created in 1996 to develop standardized construction, maintenance, and pipeline curricula with portable credentials to help address the critical skilled workforce shortage that exists in construction.

NCCER's training process of accreditation, instructor certification, standardized curriculum, national registry, assessment, and certification is a key component in the industry's workforce development efforts.

The North Carolina Career and Technical Education, Trade and Industrial Education Construction program area of NCDPI has formed a partnership with NCCER to provide teacher certification, program/facility certification, and student written and performance assessments, leading to portable credentials for

students. NCCER national certifications for secondary and post-secondary construction programs are recognized as a national industry standard. When a school program is NCCER certified, there are several accompanying requirements:

- Teachers must become certified as Craft Instructors by successfully completing the Instructor Certification Training Program (ICTP). Schools must also apply and become Accredited Training and Education Facilities (ATEF).
- Students must successfully complete both written and performance assessments as described in the Contra Curriculum for their respective area.

NC Hunter Education Course

The Hunter Education Program of the N.C. Wildlife Resources Commission provides free hunter education courses throughout the year in every county. More than a firearm safety course, instruction includes ethics and responsibility, conservation and wildlife management, wildlife identification, survival and first aid, specialty hunting and tree stand safety. Courses are a minimum of 10 hours hunter education specialists and certified volunteer instructors, and certification is accepted in every state and province in North America. Due to hunter education, hunting accidents have decreased by over 50% during the last twenty years making hunting one of the safest recreational activities. Ask your counselor for more information.

ServSafe Food Protection Manager Certification

ServSafe is a nationally recognized food safety and sanitation certification for the restaurant and hospitality industries. North Carolina Family and Consumer Sciences Education (FACS) students taking Foods II Advanced/Enterprise or Culinary Arts and Hospitality sequences of courses can sit for the ServSafe Manager Food Protection assessment. The textbook, ServSafe® Essentials, 5th Edition, is used in the classroom to help prepare students for the examination. There are numerous reasons why North Carolina Career and Technical Education, FACS students should obtain the ServSafe credential:

- ServSafe training meets the needs of teenaged learners. It is engaging, for greater comprehension and better application. The ServSafe Manager Food Protection Certification is accredited by the American National Standards Institute (ANSI) Conference for Food Protection (CFP).
- The ServSafe Manager Food Protection Certification Exam is valid, reliable, and legally defensible.
- This is a certification the industry trusts. More than 3 million ServSafe Food Protection Manager Certifications have been awarded to date.
- Because ServSafe Certification meets the needs of today's diverse industry. Written examination booklets are offered in English, Spanish, Chinese, Korean, Japanese, French Canadian and large print. Online exams are offered in English, Spanish and Chinese.

Fire Fighter Technology Credentialing Opportunities

FF I	FF II	FF III
Fire Department Orientation and Safety FIP# 3323	Ropes FIP# 3309	Emergency Medical Care FIP# 3316
Fire Prevention, Education, & Cause FIP# 3321	Ladders FIP# 3310	Rescue FIP# 3317
Fire Alarms and Communications. FIP# 3303	Forcible entry FIP# 3307	Fire Control FIP# 3313
Fire Behavior FIP# 3304	Ventilation FIP# 3308	Salvage FIP# 3314
Personal Protective Equipment FIP# 3306	Water supply FIP# 3318	Overhaul FIP# 3315
Portable Fire Extinguishers FIP# 3305	Sprinklers FIP# 3319	Building Construction FIP# 3322
Fire Hose, Streams, & Appliances FIP# 3311	Foam Fire Stream FIP# 3312	