2019-2020

DOUGLAS COUNTY
SCHOOL SYSTEM

CAREER PLANNER

DEAR PARENTS AND STUDENTS

Preparing students for success after high school is an inherent component of the Douglas County School System's vision. Whether students plan to enter the workforce immediately or attend college after high school graduation, careful consideration of high school course options can impact their futures. To better prepare students for the demands of the 21st century economy and for post-secondary education, the Douglas County School System has provided this planning guide for use by students and their parents.

Use this planning guide for the next four years to set career goals and plan for the world of future work. Go over the information in the guide together and begin to have discussions concerning post high school plans and how you can reach the goals that you set. Bring this guide with you to each annual advisement appointment at your high school and share with your advisor as you all work together to map out the next year's schedule of courses. Finally, mark your choices in the guide as you go through high school and as your career decisions possibly change and evolve.

This planning guide shows the clear connection between class work and future success, pointing out the relevance of academic learning in the classroom. It also provides information on a variety of occupations that differ in the scope of education and training required to obtain future employment.

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COLLEGE AND CAREER INSTITUTE
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Douglasville, GA 30135
770.947.7690
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DOUGLAS COUNTY SUCCESS CENTER
2300 Shoals School Road
Douglasville, GA 30135
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SCHOOL BOARD MEMBERS

Trent North, Superintendent

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D.T. Jackson, Sr., District 2

Tracy Rookard, District 3

Michelle Simmons, District 4

Jeff Morris, District 5

WHAT ARE CAREER PATHWAYS?

Career Pathways are state-approved career enhancement programs defined as a coherent, articulated sequence of rigorous academic and career-related courses starting in the ninth grade and leading to an associate degree, and/or an industry-recognized certificate or licensure, and/or a baccalaureate degree and beyond.

Career, Technical, and Agricultural Education (CTAE) provides students with the opportunity to select at least three sequenced courses in a career pathway.

CTAE CONCENTRATOR: A concentrator is defined as a student who takes at least three CTAE courses in a specific program area during their high school career.

PATHWAY COMPLETER: A pathway completer is a concentrator who completes the requirements for CTAE pathway concentrators.

Selection of a pathway is based on self-awareness and the investigation of occupations plus related educational levels aligned with the pathway. Most high- demand, high-skilled, high-wage occupations in all concentrations still require education beyond high school.

Implementation of career pathways is a collaborative effort between the Douglas County School System, the Georgia Department of Education, the Technical College System of Georgia and the University System of Georgia.

OVERVIEW OF CAREER CLUSTERS/PATHWAYS

- Georgia's 17 Career Cluster/Pathways provide a structure for organizing and delivering quality Career, Technical and Agricultural Education (CTAE) programs.
- Modeled after the National Career Clusters configuration utilized by most of the United States, Georgia's 17 Career Cluster/Pathways Model represents approximately 96 career pathways to help students navigate their way to greater success in college and career.
- As an organizing tool for curriculum design and instruction, the 17 Career Clusters provide essential knowledge and skills for the students' career pathways.
- This model functions as a:
  - *Useful guide in developing programs of study that bridge secondary and postsecondary curriculum*
  - *Indicator of a range of career options for students' graduation plans of study*
  - *Method of allowing students to discover their interests and passions, empowering them to choose the educational pathway that may lead to success in high school, college and career*
- The 17 Career Cluster/Pathways encompass both secondary and postsecondary education and will strengthen and improve student transition from secondary to postsecondary education.

ADDITIONAL PATHWAYS

An Advanced Academic Pathway may be followed in any of these four content areas: ELA(English/ Language Arts), mathematics, science or social studies. A student has completed an Advanced Academic Pathway in ELA, mathematics, science, or social studies when the criteria described below have been met.

EXPLANATION OF TERMS

CTAE Pathway
A series of 3 or 4 specified courses in a CTAE-approved pathway. Consult your district CTAE Director/Coordinator for specific course codes or contact Dawn Mann at GaDOE, dmann@doe.k12.ga.us

Advanced Academic Pathway
An advanced Academic Pathway may be followed in any of these four content areas: ELA, mathematics, science or social studies. A student has completed an Advanced Academic Pathway in ELA, mathematics, science, or social studies when the criteria described in A (page 5) have been met.

Fine Arts Pathway
A Fine Arts Pathway may be followed in any of these five areas of study: visual arts, theater, dance, music, or journalism. A student has completed a Fine Arts Pathway when three courses, from those identified in the five accompanying attachments (B-Visual Arts, C-Theater, D-Dance, E-Music, F- Journalism), have been successfully completed in any one of thefive areas.

World Language Pathway
A World Language Pathway may be followed in any of the world language areas included in the state list of approved courses. A student has completed a World Language Pathway when the criteria described have been met.

ADDITIONAL PATHWAYS

ADVANCED ACADEMIC PATHWAY IN ELA (ENGLISH/LANGUAGE ARTS) CRITERIA:

1. Student graduated, thereby completing 4 required credits in ELA, AND
2. Student's course history in ELA (23 course codes) includes at least one AP* Course Code (23. 043; 23.053; 23.065) or one IB* Course Code (23.06800; 23.06900; 23.06110; 23.06120; 23.06130) or one post secondary enrollment code in 23 that fulfills a core graduation requirement in ELA, AND
3. Student earned credits in two sequential courses in one world language.

ADVANCED ACADEMIC PATHWAY IN MATHEMATICS CRITERIA:

1. Student graduated, thereby completing 4 required credits in mathematics, AND
2. Student's course history in mathematics (27 course codes) includes at least one AP* Course Code (27.072; 27.073; 27.074) or one IB* Course Code (27.06120; 27.06130; 27.05220; 27.05240) or one post secondary enrollment code in 27 that fulfills a core graduation requirement in Mathematics, AND
3. Student earned credits in two sequential courses in one world language.

ADVANCED ACADEMIC PATHWAY IN SCIENCE CRITERIA:

1. Student graduated, thereby completing 4 required credits in science, AND
2. Student's course history in science (26 course codes and 40 course codes) includes at least one AP* Course Code (26.014; 26.062; 40.053; 40.083; 40.0841; 40.0842) or one IB* Course Code (26.01800; 26.01900; 26.06300; 40.08500; 40.08600) or one post secondary enrollment code in 26 or 40 that fulfills a core graduation requirement in Science, AND
3. Student earned credits in two sequential courses in one world language.

ADVANCED ACADEMIC PATHWAY IN SOCIAL STUDIES CRITERIA:

1. Student graduated, thereby completing 3 required credits in social studies, AND
2. Student's course history in social studies (45 course codes) includes at least one AP* Course Code (45.016; 45.052; 45.053; 45.062 45.063; 45.077; 45.0811; 45.082; 45.084) or one IB* Course Code (45.01310; 45.01320; 45.01700; 45.017100; 45.06500; 45.06600; 45.07800; 45.07900; 45.08700; 45.08800; 45.08900) or one post secondary enrollment code in 45 that fulfills a core graduation requirement in Social Studies,

   AND
3. Student earned credits in two sequential courses in one world language.

WORLD LANGUAGE PATHWAY GUIDELINES AND PATHWAY CRITERIA:

1. Student graduated, AND
2. Student's course history in one world language includes 3 distinct high school Course Codes OR includes at least 2 distinct Course Codes plus a third code reflecting an AP* course, where AP courses are offered (60.017, French; 60.077, Spanish; 60.078, Spanish Lit; 61.017, German; 61.047, Latin; 62.0196, Chinese; 63.039. Japanese); or a third code reflecting an IB* course, where courses are offered (French, 60.01120, 60.01130; Spanish, 60.07130, 60.07160; German, 61.01120, 61.01130; Latin, 61.04120, 61.04130; Chinese, 62.01900, 62.01910; Japanese, 62.03920, 62.03930; Arabic, 63.10700, 63.01800;) or one post secondary enrollment course code in the same World Language reflecting a third course at the college level.

* *AP, IB and Dual Enrollment courses must have earned credit*

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Throughout this book, a school key system is used to indicate which programs, classes, and clubs are offered at each school. If the ● is replaced with a ■ this indicates the class is Industry Certified. *See page 21 for additional information on Industry Certification.*

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

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AGRICULTURE, FOOD AND NATURAL RESOURCES

Careers with common knowledge and skills related to production, processing, marketing, financing, distribution, and development of agricultural commodities and resources. These commodities include food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

Forestry/Wildlife Systems pathway	20
Plant and Landscape Systems pathway	21

ARCHITECTURE AND CONSTRUCTION

Careers with common knowledge and skills related to the designing, planning, managing, and building structures

Architectural Drafting pathway	22

ARTS, AUDIO-VIDEO TECHNOLOGY AND COMMUNICATIONS

Careers with common knowledge and skills related to designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

Audio/Video Technology and Film pathway	23
Graphic Communications pathway	24

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DISCLAIMER: The information contained within this book is as accurate as possible at the time of publication. Classes offered at each high school can change due to scheduling and allotment conflicts.

This Career Pathways Planner is provided by the US DOE Carl Perkins Grant.

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BUSINESS MANAGEMENT AND ADMINISTRATION

Careers with common knowledge and skills related to the preparation of students with computer skills for future college and career plans. Cluster skills mastered include planning, organizing, directing, and evaluating as well as owning and operating a successful business.

Business and Technology pathway	25
Entrepreneurship pathway	26
Human Resources Management pathway	27

EDUCATION & TRAINING

Careers with common knowledge and skills related to planning, managing, and providing education and training services as well as related learning support services.

Early Childhood Care and Education pathway	28
Teaching as a Profession pathway	29

FINANCE

Careers with common knowledge and skills related money management, including planning, investing, and spending. Students gain career development skills for the finance world with opportunities that expand beyond basic business skills into financial literacy, banking, investing, insurance, and risk management.

Advanced Accounting pathway	30
Business Accounting pathway	31
Financial Services pathway	32

GOVERNMENT AND PUBLIC ADMINISTRATION

Careers with common knowledge and skills related to planning and performing of government management and administrative functions at local, state, and federal levels. Careers are available in national security, foreign service, revenue, and regulations.

JROTC - Army	33
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HEALTH SCIENCE

Careers with common knowledge and skills related to planning, managing, and providing services in therapeutics, diagnostics, health informatics, support areas, and biotechnology research and development.

Therapeutic Services - Allied Health & Medicine pathway	36
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HOSPITALITY AND TOURISM

Careers with common knowledge and skills related to the management, marketing, and operations of restaurants, and other food services, lodging, attractions, recreation events, and travel related services.

Sports and Entertainment Marketing pathway	39
Hospitality, Recreation and Tourism pathway	40

HUMAN SERVICES

Careers with common knowledge and skills related to family and human needs such as nutrition and food science, counseling and mental health services, family and community services, personal care, and consumer services.

Nutrition and Food Science pathway	41
Personal Care Services - Cosmetology pathway	42

INFORMATION TECHNOLOGY

Careers with common knowledge and skills related to the preparation for careers that create, use, modify, and engage technology skills. Graphics, multimedia animation, web design, game and application development, networking, and computer repair are all possibilities.

Web and Digital Design pathway	43
Internet of Things pathway	44
Programming pathway	45
Computer Science pathway	46
Cybersecurity pathway	47

LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY

Careers with common knowledge and skills related to employment in emergency and fire services, legal services, protective services, and homeland security.

Law Enforcement Services pathway	48

MARKETING

Careers with common knowledge and skills related to the process of anticipating, managing, and satisfying consumers' demand for products, services, and ideas. The Marketing career cluster generates the strategy that underlies advertising and promotional techniques, business communication, and business development.

Marketing and Management pathway	49

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

Careers with common knowledge and skills related to planning, managing, and providing scientific research and professional and technical services.

Engineering and Technology pathway	50
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TRANSPORTATION, DISTRIBUTION & LOGISTICS

Careers with common knowledge and skills related to planning, managing, and moving people, materials, and goods by road, pipeline, air, rail, and water, and also includes other related professional and technical support services.

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Georgia's HOT Careers to 2026

The careers in this chart have it all!

Skills and Abilities
● advanced skills required ❍ moderate skills required

Work Activities
● frequently found ❍ occasionally found

HOT jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.

	Skills and Abilities										Work Activities							Occupational Characteristics	
	Critical Thinking/Problem Solving	Judgement & Decision Making	Service Oriented/Instructing	Listening/Reading	Oral Expression/Comprehension	Dexterity/Arm-Hand Steadiness	Reasoning	Written Expression/Comprehension	Assisting & Caring for Others	Coaching/Training & Teaching Others	Communicating Outside Organization	Control Machines/Inspect Equipment	Interacting With Computers	Monitor Processes, Matrls, Surroundgs	Physical Acts/Handle-Move Objects	Process/Analyze Data or Information	Schedule/Organiz, Plan, & Prioritiz Wrk	Thinking Creatively	2017 Edition - Georgia Wage Survey	2016-26 Annual Openings
Doctoral or professional degree																				
Physical Therapists	❍	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	$86,800	410
Physicians & Surgeons, All Other	❍	●	●	●	●		●	●	●	❍	●		●	●		●	❍	●	$224,200	440
Postsecondary Teachers, All Other	●	●	●	●	●		●	●	❍	●	●		●	●		●	●	●	$77,200	490
Master's degree																				
Education Administrators, Elem & Sec	●	●	●	●	●		●	●	●	●	●	❍	●	●		●	●	●	$94,400	730
Educational, Guidance, School, & Voc Counselors	●	●	●	●	●		●	●	●	❍	●		●	●		●	●	●	$55,300	1,270
Healthcare Social Workers	●	●	●	●	●		●	●	●	●	●		●	●		❍	●	●	$51,200	580
Instructional Coordinators	●	●	●	●	●		●	●	●	●	●		●	●		●	❍	●	$57,600	700
Nurse Practitioners	●	●	●	●	●	●	●	●	●	●	●	❍	●	●		●	●	●	$101,900	420
Physician Assistants	●	●	●	●	●	❍	●	●	●	❍	●		●	●		●	❍	●	$100,800	400
Bachelor's degree																				
Accountants & Auditors	●	●		●	●	❍	●	●			●		●			●	●	●	$78,100	4,200
Administrative Services Managers	●	●	●	●	●			●			●		●	●		●	●	●	$93,900	880
Airline Pilots, Copilots, & Flight Engineers	●	●	●	●	●	●		●				❍	●	●		●	●		$92,300	800
Business Operations Specialists, All Other	❍	●	❍	●	●	●	●	●		❍	●	❍	●	●	❍	●	●	●	$71,800	3,650
Civil Engineers	●	●	❍	●	●		●	●		●		❍	●	●		●	●	●	$90,200	880
Coaches and Scouts	●	●	●	●	●		●	●		●	●		●		●	❍	●	●	$47,500	880
Compliance Officers	❍	●	❍	●	●		●	●			●	❍	●	●		●	●		$62,400	770
Computer & Information Systems Managers	●	●	❍	●	●		●	●		●	●		●	●		●	●	●	$138,800	1,040
Computer Occupations, All Other	●	●	❍	●	●		●	●		●	●		●			●	●	●	$88,200	920
Construction Managers	●	●	❍	●	●		●	●		●	●	❍	●	●		●	●	●	$105,800	720
Cost Estimators	●	●		●	●		●	●		●	●		●			●	●	●	$62,300	640
Elementary School Teachers, Exc Spec Ed	●	●	●	●	●		●	●	●	●	●		●	●		●	●	●	$55,600	4,620
Financial Analysts	●	●		●	●		●	●			●		●	●		●	❍	●	$80,800	700
Financial Managers	●	●		●	●		●	●		●	●		●	●		●	●	●	$143,700	1,740
Financial Specialists, All Other	●	●	❍	●	●		●	●		●	●		●	●		●	❍	●	$77,900	440
General & Operations Managers	●	●	●	●	●		●	●		●	●		●	●		●	●	●	$116,400	8,910
Health Educators	●	●	●	●	●		●	●	●	●	●		●			●	●	●	$77,100	460
Human Resources Managers	❍	●	●	●	●		●	●	●	●	●		●	●		●	●	●	$122,400	460
Human Resources Specialists	❍	●	❍	❍	●		●	●		●	●		●			●	●	●	$61,200	1,940
Industrial Engineers	●	●		●	●		●	●		●	●	●	●	●		●	●	●	$82,800	580
Kindergarten Teachers, Exc Spec Ed	●	●	❍	●	●		●	●	●	●				●			●	●	$53,300	740
Loan Officers	●	●	●	●	●		●	●			●		●			●	●	●	$76,900	790

✓ Fast job growth ✓ Above average wages ✓ At least 400 expected annual job openings

https://explorer.gdol.ga.gov/gsipub/index.asp?docid=356

Georgia DOL Department of Labor

Georgia Department of Labor • Mark Butler, Commissioner

Equal Opportunity Employer/Program • Auxiliary Aids and Services Available upon Request to Individuals with Disabilities

Georgia's HOT Careers to 2026

The careers in this chart have it all!

Skills and Abilities
● advanced skills required ○ moderate skills required

Work Activities
● frequently found ○ occasionally found

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	Skills and Abilities										Work Activities										Occupational Characteristics	
	Critical Thinking/Problem Solving	Judgement & Decision Making	Service Oriented/Instructing	Listening/Reading	Oral Expression/Comprehension	Dexterity/Arm-Hand Steadiness	Reasoning	Written Expression/Comprehension	Assisting & Caring for Others	Coaching/Training & Teaching Others	Communicating Outside Organization	Control Machines/Inspect Equipment	Interacting With Computers	Monitor Processes, Matrls, Surroundgs	Physical Acts/Handle-Move Objects	Process/Analyze Data or Information	Schedule/Organiz, Plan, & Prioritiz Wrk	Thinking Creatively	2017 Edition - Georgia Wage Survey	2016-26 Annual Openings
Bachelor's degree continued																				
Logisticians	●	●	●	●	●		●	●		●	●		●	●		●	●	●	$73,400	580
Management Analysts	●	●	●	●	●		●	●		●	●		●	●		●	●	●	$96,900	2,650
Market Research Analysts & Marketing Spec	●	●		●	○		●	●			●		●	●		●	●	●	$64,200	2,500
Marketing Managers	●	●	●	●	●		●	●		●	●		●	●		●	●	●	$138,600	730
Mechanical Engineers	●	●	○	●	●		●	●		○	●	○	●	●		●	○	●	$83,700	430
Medical & Health Services Managers	●	●	●	●	●		●	●		●			●	●		●	●		$109,100	840
Middle Schl Teachers, Exc Spec & Career/Tech Ed	●	●	●	●	●		●	●	●	●	●		●	●		●	●	●	$57,100	2,420
Personal Financial Advisors	○	●		●	●		●	○	●	●	●		●	●		●	●	●	$124,000	680
Producers & Directors	●	●		●	●		●	●			●		●	●		●	●	●	$77,000	550
Public Relations Specialists	●	●	●	●	●		●	●		●	●		●	●		●	●	●	$58,200	620
Registered Nurses	●	●	●	●	●	●	●	●	●	●	●	○	●	●	●	●	●	●	$65,600	5,410
Sales Managers	●	●	●	●	●		●	●		●	●		●			●	●	●	$130,800	1,580
Secondary Schl Teachers, Exc Spec & Career/Tech Ed	●	●	●	●	●		●	●	●	●	●		●	●		●	●	●	$57,100	2,220
Software Developers, Applications	●	●		●	●		●	●		○			●	●		●	○	●	$103,000	2,300
Training & Development Specialists	●	●	●	●	●		●	●		●	●		●	●		●	●	●	$62,300	1,120
Associate's degree																				
Dental Hygienists	○	●	●	●	●	●	●	●	●	○		●	●	●	●	○	●		$66,100	540
Paralegals & Legal Assistants	○	●	○	●	●		●	●			●		●	●		●	●		$53,600	1,060
Postsecondary non-degree award																				
Aircraft Mechanics & Service Technicians	●	●	●	○	●	●	●	●	●	●		●	●	●	●	●	●	●	$70,000	800
Some college, no degree																				
Computer User Support Specialists	●	●	●	●	●	○	●	●		○		○	●	●		●	○	●	$54,200	1,930
High school diploma or equivalent																				
Automotive Body & Related Repairers	○			○	●	●						○		●	●				$51,500	620
Electrical Power-Line Installers & Repairers	●	●		●	●	●	●	●	●	●	●	●		●	●	●	○	●	$51,000	630
Supvrs of Construction Trades & Extraction Workers	●	●	●	○	●	●	●	●		○	●	●		●	●	●	●	●	$62,400	1,590
Supvrs of Helpers, Laborers, & Material Movers, Hand	●	●	○	●	●		●	●		●		●	●	●	●	●	●	●	$51,600	1,010
Supvrs of Mechanics, Installers, & Repairers	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	$63,500	1,460
Insurance Sales Agents	●	●	○	●	●		●	●			●		●	●		●	●		$67,800	1,630
Production, Planning, & Expediting Clerks	●	●		●	●		●	●		○		○	●	●		●	●	●	$48,900	1,290
Property, Real Estate, & Community Assoc Mgrs	●	●	○	●	●		●	●		●	●	○	●	●		●	●	●	$86,700	700
Sales Reps, Services, All Other	●	●		●	●		●	●		○	●		●	●		●	●	●	$58,800	4,050
Sales Reps, Wholesale & Mfg, Exc Tech & Scientific Products	○	●	○	●	●		●	●			●		●	●		●	●	●	$63,600	6,590

✓ Fast job growth ✓ Above average wages ✓ At least 400 expected annual job openings

Note: This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the Georgia Department of Labor and does not necessarily reflect the official position of the U.S. Department of Labor. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

For more information, please contact Workforce Statistics & Economic Research at (404) 232-3875 • Fax (404) 232-3888
Email: Workforce_Info@gdol.ga.gov

GEORGIA'S STEM Careers to 2026

Science I Technology I Engineering I Mathematics

Knowledge
Understanding of principles and facts of subject matter
● full knowledge required
❍ some knowledge required

Education
Typical education needed to enter an occupation

Hot jobs have faster than state annual average job growth, above the state annual average wage, and have at least 400 annual openings.

	Knowledge																	Education				Occupational Characteristics	
	Administration and Management	Biology/Chemistry	Design/Bldg and Construction	Clerical/Customer and Personal Svc	Telecom/Communications and Media	Computers and Electronics	Economics and Accounting	Education and Training	Engineering and Technology	English Language	Law and Govt/Public Safety and Security	Mathematics	Mechanical/Production and Processing	Medicine and Dentistry	Personnel and Human Resources	Physics	Psychology/Sociology and Anthropology	Therapy/Counseling	Doctoral or Professional Degree	Master's Degree	Bachelor's Degree	HS Diploma/Assoc Degree/Some College	2017 Edition - Georgia Wage Survey	2016-26 Annual Openings
Life and Physical Science, Engineering, Mathematics, and Information Technology Occupations																								
Aerospace Engineers			❍			●			●	●		●	●			●					✓		$112,400	240
Civil Engineering Technicians			●			●			●	●	❍	●										✓	$47,800	190
Civil Engineers Hot	●		●	❍		●	●		●	●	❍	●			●	●					✓		$90,200	880
Computer & Information Systems Managers Hot	●			❍		●		●	●	●		●			●						✓		$138,800	1,040
Computer Network Architects			❍	❍	❍	●			●	●		●									✓		$117,200	350
Computer Network Support Specialists	●			❍	●	●			●	●												✓	$73,100	580
Computer Occupations, All Other Hot	●		❍	❍	●	●	●		●	●		●					❍				✓		$88,200	920
Computer Systems Analysts	●			❍		●			●	●		●									✓		$93,500	1,150
Computer User Support Specialists Hot				❍	●	●				●		●										✓	$54,200	1,930
Database Administrators				❍	●	●				●		●									✓		$89,600	350
Electrical & Electronics Engineering Techs			❍	❍		●			●	●		●	●			●						✓	$60,200	360
Electrical Engineers			❍			●		●	●	●		●	❍			●					✓		$90,400	340
Electronics Engineers, Exc Computer			❍	❍	❍	●			●	●		●	●			●					✓		$93,700	400
Engineers, All Other	●	●	❍	❍	❍	●		●	●	●	❍	●	●			●					✓		$92,100	230
Environmental Engineers	●	●	❍	❍		●		●	●	●	●	●	❍			●					✓		$68,200	140
Industrial Engineers Hot	●		❍	❍		●		●	●	●		●	●								✓		$82,800	580
Information Security Analysts	●			❍	●	●		●	●	●	❍										✓		$91,000	210
Mechanical Engineers Hot	●	❍	❍	●		●		●	●	●		●	●			●					✓		$83,700	430
Medical Scientists, Exc Epidemiologists	●	●				●				●		●	●	●					✓				$64,000	150
Network & Computer Systems Administrators	●					●				●		●									✓		$88,200	750
Operations Research Analysts	●					●			●	●		●	❍								✓		$64,300	240
Sales Reps, Wholesale & Mfg, Tech & Scientific Products	●			❍		●				●		●	❍								✓		$88,000	1,040
Software Developers, Applications Hot			❍	❍		●			●	●		●									✓		$103,000	2,300
Software Developers, Systems Software			❍	❍	❍	●			●	●		●									✓		$98,600	970
Statisticians						●				●		●								✓			$87,200	100
Surveying & Mapping Technicians			●	❍		●			●	●	●	●										✓	$41,100	240
Web Developers			❍	❍	❍	●				●		●										✓	$78,200	350
Health Occupations																								
Dental Hygienists Hot		❍		❍				●		●				●			❍					✓	$66,100	540
Dentists, General	●	❍		❍			●	●		●				●	●		❍		✓				$176,100	160
Diagnostic Medical Sonographers		❍		●		●		●		●				●		❍	❍					✓	$63,400	140
Emergency Medical Techs & Paramedics	●	●		●	❍			●		●	●	●		●			❍	●				✓	$33,400	780
Family & General Practitioners		●		❍						●		●		●			❍	●	✓				$213,800	180
Health Diagnosing & Treating Practitioners, All Other	●	●		●				●		●				●			●	●		✓			$103,500	190

https://explorer.gdol.ga.gov/gsipub/index.asp?docid=356

Georgia DOL Department of Labor
Georgia Department of Labor • Mark Butler, Commissioner
Equal Opportunity Employer/Program • Auxiliary Aids and Services Available upon Request to Individuals with Disabilities

GEORGIA'S STEM Careers to 2026

Science I Technology I Engineering I Mathematics

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- ● full knowledge required
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	Knowledge																	Education				Occupational Characteristics	
	Administration and Management	Biology/Chemistry	Design/Bldg and Construction	Clerical/Customer and Personal Svc	Telecom/Communications and Media	Computers and Electronics	Economics and Accounting	Education and Training	Engineering and Technology	English Language	Law and Govt/Public Safety and Security	Mathematics	Mechanical/Production and Processing	Medicine and Dentistry	Personnel and Human Resources	Physics	Psychology/Sociology and Anthropology	Therapy/Counseling	Doctoral or Professional Degree	Master's Degree	Bachelor's Degree	HS Diploma/Assoc Degree/Some College	2017 Edition - Georgia Wage Survey	2016-26 Annual Openings
Health Occupations *Continued*																								
Health Technologists & Technicians, All Other	●	❍		●		●		●		●	❍	●		●	●		❍					✓	$42,200	340
Internists, General	●	●		●		●		●		●	●	●		●	●		●	●	✓				$255,200	90
Licensed Practical & Licensed Vocational Nurses	●	❍		●				●		●	●	●		●			●	●				✓	$40,700	2,250
Med & Clinical Laboratory Technicians		●		●				●		●	❍	●		●								✓	$36,700	430
Med & Clinical Laboratory Technologists		●		●				●		●		●	❍	●							✓		$58,600	370
Med Records & Health Information Techs				●		●				●												✓	$38,900	450
Nurse Practitioners Hot		●		●	❍	●		●		●	●	●		●			●	●		✓			$101,900	420
Nursing Instructors & Teachers, Postsec	●	●		●	❍	●		●		●	❍	●		●			●	●		✓			$65,400	110
Occupational Therapists		❍		❍				●		●				●			●	●		✓			$83,100	240
Pharmacists	●	●		●		●				●	❍	●		●			❍	●	✓				$117,600	510
Pharmacy Technicians				●						●		●		●								✓	$29,400	1,170
Physical Therapists Hot	●			●				●		●				●			❍	●	✓				$86,800	410
Physician Assistants Hot		●		❍		●		●		●				●			●	●		✓			$100,800	400
Physicians & Surgeons, All Other Hot	●	●		❍		●	●	●		●	●	●		●	●	●	❍	●	✓				$224,200	440
Radiologic Technologists		❍		●		●		●		●	❍	●	●	●		●	❍					✓	$52,600	360
Registered Nurses Hot		❍		❍		●		●		●		●		●			❍	●			✓		$65,600	5,410
Respiratory Therapists		●		❍		●		●		●		●		●			❍					✓	$55,200	310
Speech-Language Pathologists				❍				●		●				●			❍	●		✓			$74,100	260
Surgical Technologists				❍				●		●				●								✓	$41,900	350
Veterinarians	●	●		❍						●		●		●					✓				$86,900	120
Veterinary Technologists & Technicians		❍		●						●		●		●								✓	$31,000	310
Architecture Occupations																								
Architects, Exc Landscape & Naval	●		●	❍		●	●		●	●	●	●			●						✓		$98,300	250
Architectural & Civil Drafters			●	❍		●			●	●	❍	●										✓	$53,800	300
Architectural & Engineering Managers	●		❍	❍		●			●	●	●	●	●		●	●					✓		$138,100	370
Landscape Architects	●	❍	●	●	❍	●	●		●	●	●	●									✓		$71,400	90
Social Science Occupations																								
Clinical, Counseling, & School Psychologists	●			●		●		●		●	●	●					●	●	✓				$83,400	230
Economists						●	●	●		●		●								✓			$105,100	30
Political Science Teachers, Postsec	●			❍	❍	●		●		●	❍						●		✓				$76,400	40
Psychology Teachers, Postsec						●		●		●		●					●	●	✓				$68,700	70
Social Science Research Assistants	●			●		●		●		●		●					●				✓		$46,400	100
Social Scientists & Related Workers, All Other	●		●	❍					●	●	❍	●									✓		$68,000	130
Urban & Regional Planners	●		❍	❍	❍			●		●	●	●			●		❍			✓			$56,800	50

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https://explorer.gdol.ga.gov/gsipub/index.asp?docid=356

For more information, contact Workforce Statistics & Economic Research (WS&ER) at (404) 232-3875 or at workforce_info@gdol.ga.gov

Navigating the Journey

from 8th grade to High School

A

Who should attend high school registration?

All eighth grade STUDENTS and their PARENTS should attend registration at their designated high school.

If the parent is unable to attend, another (adult) family member/designee should attend with the student.

B

What is the purpose of attending high school registration?

Both the parent and the student will have an opportunity to gain information and have questions answered regarding course recommendations from the middle school.

C

How do I know where to go for high school registration?

A student's high school placement is based on the address (and associated residency information) on file at the middle school or acceptance in a specific high school program.

Current DCSS high school programs are:

- **Alexander High School** AP Capstone
- **Chapel Hill High School** AP Magnet
- **Douglas County High School** IB
- **Lithia Springs High School** STEM
- **New Manchester High School** FAME
- **College and Career Institute (CCI)** Located at West Georgia Technical College

D

What do I need to do to prepare for high school registration?

Download the **Career Planner** from the Douglas County School System website (www.dcssga.org), save, and review the Career Planner prior to attending high school registration.

E

How do I prepare for a successful transition before school starts in August?

Attend the **Freshman Expo** on Thursday, **March 21st** (usually about 6-8 pm).

Check your high school website for updates during the month of July.

Check your mail for any information your high school may send during the summer.

Attend any **Freshman Orientation** activities before school starts.

F

How are courses chosen for students?

Academic and Elective courses can be taken at your high school, the CCI (College and Career Institute), college or technical school.

Academic Courses include English, Math, Science, and Social Studies. Course recommendations will be made by middle school teachers based on each student's current class performance, last year's standardized test scores and any high school rubric/minimum requirements. World Language is an academic elective. Students who have successfully completed World Language in DCSS in 7th and 8th grades have the opportunity to take French II or Spanish II in 9th grade.

Elective Courses are similar to middle school connection classes which include Physical Education and Fine Arts.

CCI (Douglas County College and Career Institute) Classes taken at the CCI, college or technical school require a separate application process. Parents and students must work with the high school counselor to facilitate the process for any courses taken. Applications are available from your middle school counselor.

Douglas County School System

9030 Highway 5, Douglasville, GA 30134
770.651.2000 www.dcssga.org

INFORMATION FOR STUDENTS ENTERING HIGH SCHOOL

23 TOTAL NUMBER OF CREDITS REQUIRED FOR GRADUATION

English	**4 credits**
• 1 credit 9th Grade Literature	
• 1 credit American Literature	
• 2 additional Literature classes	
Math	**4 credits**
• 1 credit Algebra	
• 1 credit Geometry	
• 1 credit Algebra II	
• 1 additional Math credit	
Science	**4 credits**
• 1 credit Biology	
• 1 credit Physical Science or Physics	
• 1 credit Chemistry, Earth Systems, Environmental Science, or AP	
• 1 Additional Science credit	
Social Studies	**4 credits**
• 1 credit American Government	
• 1 credit World History	
• 1 credit United States History	
• 1 credit Economics	
CTAE, World Language or Fine Arts	**3 credits**
Health	**.5 credit**
Personal Fitness	**.5 credit**
Electives	**3 credits**

* *Board of Regents requires 2 years of the same World Language for ALL 4 year colleges and universities.*

PROMOTION REQUIREMENTS

- 9th to 10th Grade **5 credits**
- 10th to 11th Grade **11 credits**
- 11th to 12th Grade **18 credits**

END-OF-COURSE 20% of grade

- 9th Grade Literature
- American Literature
- Physical Science
- Biology
- Algebra I
- Geometry
- US History
- Economics

HONORS/AP REQUIREMENTS

- Teacher Recommendation
- Signed Student/Parent Agreement
- Recommended Lexile of at least 1150

BOARD SCHOLAR

- 2 units from the same World Language
- 1 extra core class from Math, Science, Social Studies, English, or World Language
- 3.5 cumulative GPA; No F's

INFORMATION FOR STUDENTS ENTERING HIGH SCHOOL

SEALS FOR DIPLOMAS

- **Fine Arts Seal** Complete 3 fine arts credits; 2 in the same area
- **CTAE Cord** Complete CTAE pathway and pass End of Pathway Exam.
- **World Language Seal** Complete 3 units in the same World Language
- **Academic Seal** Complete 3 of any of the following: AP courses, college core Dual Enrollment courses, or technical college Dual Enrollment certification programs
- **International Skills Diploma Seal** Coursework- 8 credits of courses with International focus 7 can be from World Languages (minimum 3 credits World Languages or ESOL). Community Service (20 hours) involving a global/cross cultural focus. Extracurricular activities and experience with global themes or context (minimum 4). Capstone Presentation on Knowledge gained in courses and activities listed above (Possible Format: performance, presentation, video, journal reading).
- **International Baccalaureate** Complete thetwo year IB program and graduate in good standing as an IB diploma candidate.
- **STEM Seal** Complete the requirements of the STEM program and graduate in good standing as a STEM diploma candidate.
- **Georgia's New Seal of Biliteracy** The Seal of Biliteracy will be available for graduating high school students starting in 2016-17. On May 3, 2016, HB 879 was signed into law establishing Georgia's Seal of Biliteracy. All Georgia public school students are eligible to attain the Seal based on evidence of achieving the required level of language proficiency in English plus one or more other languages during their high school years, be that language a native language, a heritage language, or a language learned in school or another setting.

  The requirements are:
  (1) Completion of all English language arts requirements for graduation with an overall grade point average of 3.0 or above in those classes; and

  (2) Proficiency in one or more languages other than English, demonstrated by passing a foreign language advanced placement examination with a score of.4 or higher or an International Baccalaureate examination with a score of 5 or higher. For languages in which an Advanced Placement examination is not available, the Department of Education may provide a listing of equivalent summative examinations that local school systems may use in place of such an Advanced Placement examination.

PARTICIPATION IN GRADUATION CEREMONY

Complete all 'GRADUATION COURSE REQUIREMENTS'
Please note that Georgia no longer requires passing an assessment in order to earn a diploma.

HOPE Academic rigor requirement has been added for more info, see HOPE Program section @ GAfutues.org

College Prep
- 3.0 GPA in ALL core classes (E, M, Sc, SS, FL)
- Covers 90% previous year's tuition

Zell Miller Scholar Program
- 3.7 GPA in ALL core classes (E, M, Sc, SS, FL)
- 26 ACT or 1200 SAT (critical reading & math only)

NONTRADITIONAL PROGRAMS

Success Centers
- Performance Learning Center (PLC)
- Virtual Academy (VA)
- Project Eclipse (night school)

IMPORTANT WEB SITES

- **College Board** www.collegeboard.com
- **ACT** www.act.org
- **Georgia Futures** www.GAfutures.org

SCHOLARSHIPS AND GRANTS

While in high school, you should be deciding on what you will do after graduating. If continuing your education is your plan, part of that plan will be how you're going to pay for it. There are several scholarship and grant options available for you. Ask your counselor what your best options are. This should include HOPE and DCEF (Douglas County Education Foundation). DCEF manages several local scholarships offered to Douglas County School System graduating seniors. These local scholarships are based on financial need, GPA, participation in extracurricular activities, school organizations, and community service. Over $126,000 has been awarded through DCEF since 1993. Visit DCEF's website dcef.dcssga.org for additional details including scholarships offered, qualifications and deadlines.

Douglas County
EDUCATION FOUNDATION
www.DCEF.DCSSGA.org

CTAE FOURTH SCIENCES AND EMBEDDED COURSES

The following courses are typically considered Career, Technical, Agricultural Education (CTAE) Courses. The State Department of Education along with the University System of Georgia have determined that these courses may also be used to fulfill certain graduation and college admission requirements. If you have any questions, please talk with your student's high school counselor.

COURSE NAME	Counts as 4th Science for Graduation	Counts as 4th Science to a 4 yr. College	Counts as 4th Math for Graduation	World Language Credit for Graduation Electives ONLY
Animal Science/Technology/Biotechnology	X	X		
Essentials of Healthcare	X	X		
Food for Life	X	X		
Food Science	X	X		
Forest Science	X	X		
General Horticulture and Plant Science	X	X		
Natural Resources Management	X	X		
Plant Science and Biotechnology	X	X		
Sports Medicine	X	X		
* Advanced Placement Computer Science	X	X		X
* Advanced Placement Computer Science Principles	X	X		X
* Computer Science Principles	X	X		X
* Embedded Computing	X	X	X	X
* Game Design: Animation and Simulation	X	X	X	X
* International Baccalaureate Computer Science, Year One	X	X	X	X
* International Baccalaureate Computer Science, Year Two	X	X	X	X
* Programming, Games, Apps and Society	X	X	X	X
* Web Development	X	X	X	X

* *Two computer science sequenced courses will satisfy the two year foreign language requirement for graduation electives but may not be accepted for foreign language credit by the colleges and universities.*

Certain CTAE courses have been identified by the State Department of Education as courses in which the standards of specific academic courses are also embedded. Since mastery of the standards in the CTAE course would also indicate mastery of the standards in the academic course, satisfactory completion of the CTAE courses will also earn credit for the student in the academic course. In short, the student earns two credits for one CTAE course. The following courses are included in this provision at this time:

Course Name **Essentials of Healthcare**

Course Credits on your transcript **Essentials of Healthcare and Anatomy for a total of two credits**

CERTIFICATES, OPPORTUNITIES AND RESOURCES

CTAE INDUSTRY CERTIFICATION

When a program becomes industry certified, it receives a "Stamp of Excellence", which represents the apex of program quality. Only those programs that have successfully undergone rigorous reviews by leaders from business and industry are recognized with this distinction.

This formal process strengthens all program components, including:

- *Classrooms and labs which are equipped with state-of-the-art equipment and technology*
- *CTAE and academic performance standards that are aligned to national standards*
- *In-depth, project-based instruction in all curriculum areas*
- *Appropriate and varied Career Related Education (CRE) instruction, including school-based enterprises and entrepreneurial ventures*
- *Career and Technical Student Organizations (CTSOs) which offer co-curricular competitive events on the local, state and national level and provide leadership development skills for personal and professional growth; and*
- *Business, industry and community involvement in all aspects of the program*

Industry certified programs not only offer outstanding opportunities to students who receive instruction through such programs but they also offer positive benefits for schools as well as employers.

NONTRADITIONAL OCCUPATIONS

Nontraditional careers are those occupations or fields of work for which individuals from one gender comprise less than 25% of the individuals employed. Students are encouraged to enroll in courses that fit their career goals regardless of the gender make-up in the classroom. Some examples of nontraditional careers are:

- *Nursing for males*
- *Drafting for females*
- *Cosmetology for males*
- *Automotive for females*

CAREER PLANNING RESOURCES

http://gacrn.gcic.edu/
Georgia Career Resource Network is a web site designed to assist students, parents, and school personnel with career-related programs, initiatives, and information.

www.GAfutures.org
GAfutures is an internet site to help students with high school, college and career planning, financial aid, and applying for college.

www.careeronestop.org
CareerOneStop, sponsored by the U.S. Department of Labor, provides opportunities for visitors to identify interests, explore careers, and find education options.

www.bls.gov/oco/
The Occupational Outlook Handbook is a nationally recognized source of career information. It describes what workers do on the job, working conditions, the training and education needed, earnings, and expected job prospects. The handbook covers a wide range of occupations.

www.Myplan.com
MyPlan.com is a career database which allows visitors to search, browse, or query through over 900 different careers, read career profiles, job descriptions, and educational requirements, and explore career outlooks.

The Standard of Excellence
DOUGLAS COUNTY SCHOOL SYSTEM

High School Career Pathways

2019-2020 OPTIONS

ALEXANDER HIGH SCHOOL

6500 Alexander Parkway, Douglasville, GA 30135
770-651-6000
AHS.DCSSGA.org

Liberal Arts College Preparatory
AP Capstone

- Advanced Accounting
- Allied Health & Medicine
- Automobile Maintenance Light Repair
- Business Accounting
- Computer Science
- Cybersecurity
- Early Childhood Care & Education
- Engineering & Technology
- Entrepreneurship
- Financial Accounting
- Forestry/Wildlife Systems
- Hospitality, Recreation & Tourism
- JROTC - Army
- Law Enforcement
- Marketing & Management
- Nutrition & Food Science
- Plant & Landscape Systems
- Programming
- Teaching as a Profession
- Web & Digital Design

CHAPEL HILL HIGH SCHOOL

4899 Chapel Hill Road, Douglasville, GA 30135
770-651-6200
CHHS.DCSSGA.org

Advanced Placement
Magnet Program

- Allied Health & Medicine
- Architectural Drafting
- Computer Science
- Early Childhood Care & Education
- Engineering Drafting & Design
- Entrepreneurship
- Human Resources
- Internet of Things
- JROTC - Navy
- Marketing & Management
- Nutrition & Food Services

DOUGLAS COUNTY HIGH SCHOOL

8705 Campbellton Street, Douglasville, GA 30134
770-651-6500
DCHS.DCSSGA.org

IB International Baccalaureate

- Allied Health & Medicine
- Business & Technology
- Cosmetology
- Cybersecurity
- Early Childhood Care & Education
- Engineering & Technology
- Hospitality, Recreation & Tourism
- JROTC - Army
- Nutrition & Food Science
- Web & Digital Design

LITHIA SPRINGS HIGH SCHOOL

2520 East County Line Road, Lithia Springs, GA 30122
770-651-6700
LSHS.DCSSGA.org

STEM Academy
Science, Technology, Engineering & Mathematics

- Computer Science
- Cosmetology
- Cybersecurity
- Early Childhood Care & Education
- Emergency Medical Responder
- Engineering & Technology
- Entrepreneurship
- Hospitality, Recreation & Tourism
- Human Resources
- JROTC - Marines
- Nutrition & Food Science
- Sports Medicine
- Teaching as a Profession
- Web & Digital Design

NEW MANCHESTER HIGH SCHOOL

4925 Highway 92/166, Douglasville, GA 30135
770-651-2700
NMHS.DCSSGA.org

FAME
Fine Arts Magnet Program

- Audio/Video Technology & Film
- Business & Technology
- Early Childhood Care & Education
- Entrepreneurship
- Law Enforcement
- Nutrition & Food Science
- Marketing & Management
- Sports & Entertainment Marketing
- Web & Digital Design

DOUGLAS COUNTY COLLEGE & CAREER INSTITUTE

4600 Timber Ridge Drive, Bldg D, Douglasville, GA 30135
770-947-7690
CCI.DCSSGA.org

Dual Enrollment
West Georgia Technical College

- Audio/Video Technology
- Automobile Maintenance & Light Repair
- Cosmetology
- Early Childhood Care & Education
- Graphic Communications
- Law Enforcement
- Nutrition & Food Science

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FORESTRY/ WILDLIFE SYSTEM PATHWAY

INDUSTRY CREDENTIAL

Precision Natural Resource

Those working in the forestry and natural resources field conserve and manage our forest and natural resources. Those working in this field regularly work with landowners, loggers, forestry technicians and aides, farmers, ranchers, government officials, special interest groups, and the general public. Anyone interested in this field should enjoy working outdoors. The federal, state, and local governments employ many forestry and natural resources workers.

Pathway Concentration Courses

- Basic Agriculture
- Forest Science
- Wildlife Management

Recommended Courses

- Forestry Technology
- Natural Resources
- Wildlife Technology
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

An associate's or bachelor's degree in forestry is the minimum education recommended for a professional career in forestry. Forestry and natural resources technicians usually receive their training through a combination of community colleges and on-the-job training. Many states require licensure of professional foresters.

Career and Technical Student Organizations

- FFA

Top Career Choices

Jobs in Georgia will be available for qualified foresters at a slower than average rate; however, nationally the market will be seeking almost 2000 foresters between 2010-2020. Employment of conservation scientists is expected to increase 5 percent from 2010 to 2020, slower than the average for all occupations.

Additional Career Choices

Aquacultural Managers
Biological Science Postsecondary
Conservation Scientists
Fish and Game Officers
Fish and Game Wardens
Fisheries Manager
Forest and Conservation Technicians
Forest Manager
Forest Worker
Foresters
Log Graders and Scalers
Logger
Logging Equipment Operators
Natural Sciences Managers
Park Naturalists
Park Manager
Range Managers
Soil and Water Conservationists
Teachers
Wildlife Manager
Zoologist and Wildlife Biologists

PLANT AND LANDSCAPE SYSTEMS PATHWAY

This course is designed as an introduction for the Horticulture/Plant Science Pathway Program of Study. The course introduces the major concepts of plant and horticulture science. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Pathway Concentration Courses

- Basic Agricultural Science
- Introduction to Business and Technology
- Nursery and Landscape

Recommended Courses

- Biology
- Business Management
- Computer Applications
- Economics
- Environmental Science
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Associates in Science

Colleges/Universities

- Bachelor of Science, Agricultural Business
- Bachelor of Science, Agricultural Education
- Bachelor of Science, Plant Science
- Master and PhD in all areas

Career and Technical Student Organizations

- FFA

Top Career Choices

Interior-Scape Designers
$65,000-$70,000 annual salary
B.S. Degree or higher

Landscape Designers
$42,000-$75,000 annual salary
No degree required. B.S. recommended

Garden Center Owner/Operator
Salaries vary based on scope of business
No degree required.

Golf Course Manager/Athletic Field Manager
$64,000-$84,000 annual salary
Bachelors Degree

Additional Career Choices

Chemical, Equipment, Plants or Seed Sales
Commercial Landscape Designers
Cooperative Extension Agent
Farmer
Fruit and Orchard Production
Garden Writers
Greenhouse
Horticulture Teacher
Irrigation System Design and Installation
Landscape and Nursery
Marketing for Gardens or Green Industry
Orchard and Vegetable Farm
Organic Vegetable Production
Park Design and Maintenance
Production Marketing
Public and Private Garden Curators
Public Gardens
Public Relations
Research Scientist or Plant Breeding
Sod Production and Sales
Wetland Reclamation
Zoo or City Government Horticulturist

ARCHITECTURAL DRAFTING PATHWAY

People with careers in engineering, drawing, and design are people who solve problems and focus on making things work more efficiently and effectively. Engineers apply the theories and principles of science and mathematics to research and develop economical solutions to technical problems. Their work is the link between perceived social needs and commercial applications.

Pathway Concentration Courses

- Introduction to Drafting and Design
- Architectural Drawing and Design I
- Architectural Drawing and Design II

Recommended Courses

- Advanced Algebra/Trigonometry
- Calculus
- Computer Applications
- Entrepreneurship
- Introduction to Animation and 3D Design
- Physics
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- CAD Operator
- Land Development
- Project Management
- Specialty Construction

Colleges/Universities

- Architecture
- Civil Engineering Technology
- Construction Engineering
- Construction Management
- Surveying and Mapping

Career and Technical Student Organizations

- SkillsUSA

Top Career Choices

Architect
Moderate-Term On-the-Job Training needed
$53,000 annual salary
110 annual average openings in Georgia

Architectural and Civil Drafter
Post-Secondary Vocational Training needed
$42,078 annual salary
80 annual average openings in Georgia

Mechanical Drafter
Post-Secondary Vocational Training needed
$42,141 annual salary
40 annual average openings in Georgia

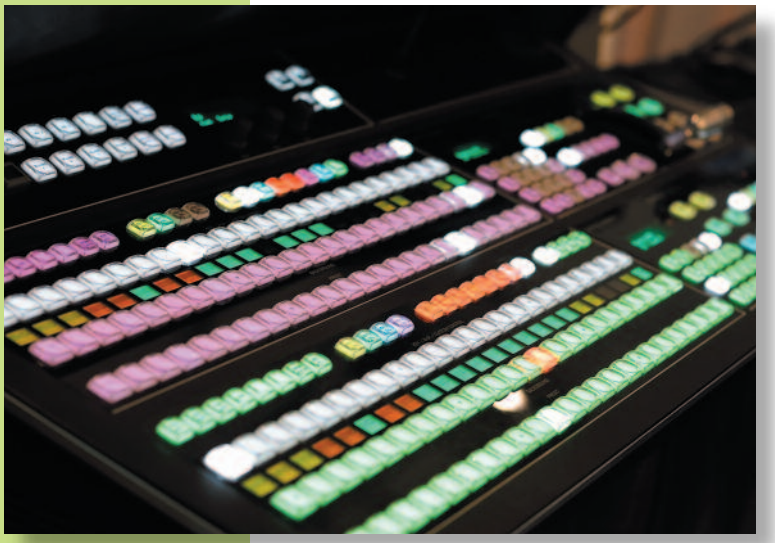
Surveying and Mapping Technician
Moderate-Term On-the-Job Training needed
$43,540 annual salary
110 annual average openings in Georgia

Surveyor
Bachelor Degree needed
$59,000 annual salary
110 annual average openings in Georgia

Additional Career Choices

Architectural Detailer
Architectural Engineer
Building Inspector
Civil Engineer
Designer
Drafter
Electrical Engineer
Environmental Engineer
Interior Designer
Landscape Designer
Structural Detailer
Structural Engineer
Technician
Urban Planner

AUDIO/VIDEO TECHNOLOGY AND FILM PATHWAY



Audio and Video Technology and Film is a class that teaches all aspects of video production from pre-production, production, and post-production, including theory and practical application. Students will have the opportunity to participate in various types of broadcast/video production from events and commercials to mini-movies and documentaries.

Pathway Concentration Courses

- Audio and Video Technology and Film I
- Audio and Video Technology and Film II
- Audio and Video Technology and Film III

Recommended Courses

- Introduction to Business and Technology
- Business Communications
- Digital Design
- Intro to Animation and 3D Design
- Marketing Principles
- Photography
- Visual Arts
- Work-Based Learning
- World Language
- Yearbook/Journalism

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Technical Studies
- Telecommunications Arts

Colleges/Universities

- Broadcast Design
- Journalism and Broadcasting
- Mass Communications
- Mass Media/Arts
- Public Relations
- Video/Digital

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Audio and Video Equipment Technician
Long-Term On-the-Job Training needed
$40,498 annual salary
80 annual average openings in Georgia

Broadcast News Analyst
Bachelor Degree needed
$57,845 annual salary
20 annual average openings in Georgia

Broadcast Technician
Associate Degree needed
$35,443 annual salary
50 annual average openings in Georgia

Broadcast Technician
Associate Degree needed
$35,443 annual salary
50 annual average openings in Georgia

Film/ Video Editor and Camera Operators
Bachelor Degree needed
$58,210 annual salary
13% Growth Annually in Georgia

Additional Career Choices

Audio-Video Operator
Broadcast Field Supervisor
Broadcast Technician
Camera Operator
Chief Engineer
Control Room Technician
Director
Non-Linear Video Editor
Radio and TV Announcer
Reporter
Sound Technician
Station Manager
Transmission Engineer

GRAPHIC COMMUNICATIONS PATHWAY

INDUSTRY CREDENTIAL

Graphic Communications

Graphic Communications allows the students to perform a variety of tasks. Students will experience basic introduction to graphic communications. Activities include making note pads, business cards, brochures, postcards, cover designs and promotional materials, invitations, and more. Many students will be a part of the ever increasing need for work used by local schools and businesses.

Pathway Concentration Courses

- Introduction to Graphics and Design
- Graphic Design and Production
- Advanced Graphic Output Processes

Recommended Courses

- Marketing/Entrepreneurship
- Math (statistics/accounting)
- Public Speaking
- Visual Arts
- WBL
- World Language
- Yearbook/Journalism

Post-Secondary Degrees, Diplomas, and Certificates

Post-secondary Technical College, Chattahoochee Tech or Art Institue of Atlanta

Bachelors Georgia Southern, Georgia State, SCAD, Art Institute of Atlanta

Certificates SCAD, eLearning, or Chattahoochee Tech

Career and Technical Student Organizations

- SkillsUSA
- FFA

Top Career Choices

Job Outlook: PSGF estimates 40k people will be needed annually through 2020 in the industry. Printing is the 2nd largest manufacturing industry in the US in terms of establishments.

Advertising/Logo Design
Creative/Art Director
Educator
Estimator
Graphic Designer
Marketing, Internet and Social Media Specialist
Photographer
Yearbook Rep

Additional Career Choices

Branding
Creative Consultant
Entrepreneur
Packaging Designer
Photo Editor

BUSINESS AND TECHNOLOGY PATHWAY

INDUSTRY CREDENTIAL

Microsoft Office Specialist Certification in Power Point

Pathway of social, ethical, and human issues related to business and technology. Courses will provide an introduction to computer technology, decision making, productivity, communications, and problem-solving skills. Areas of instruction include integration of word processing, spreadsheet, database, and presentation software as well as the use of emerging technologies.

Pathway Concentration Courses

- Introduction to Business and Technology
- Business and Technology
- Business Communications

Recommended Courses

- Any business and computer science course
- Marketing Principles
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Administrative Support Assistant
- Business Administrative Assistant
- Business Administrative Technology
- Certification in Microsoft Applications (MOAC)
- Data Entry Clerk
- General Office Assistant
- Microsoft Excel Application User
- Microsoft Office Application Professional
- Microsoft Word Application Professional

Colleges/Universities

- Business
- Business Administration
- International Business

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Administrative Services Manager
Bachelor Degree needed
$68,016 annual salary
420 annual average openings in Georgia

Executive Secretary and Administrative Assistant
Moderate On-the-Job Training needed
$37,378 annual salary
1,620 annual average openings in Georgia

Legal Secretary
Post-Secondary Vocational Award needed
$36,338 annual salary
270 annual average openings in Georgia

Medical Transcriptionist
Post-Secondary Vocational Award needed
$30,514 annual salary
130 annual average openings in Georgia

Additional Career Choices

Administrative Assistant
Communications Equipment Operator
Computer Operator
Court Reporter
Customer Service Assistant
Data Entry Specialist
Dispatcher
Executive Assistant
Human Resource Specialist
Information Assistant
Office Manager
Payroll Specialist
Receptionist
Shipping and Receiving Personnel
Word Processors

ENTREPRENEURSHIP PATHWAY

Entrepreneurs, innovators, and small businesses play a key role in Georgia's economy. Business professionals may be managers, owners, accountants, economists, administrators, or analysts. These individuals must possess excellent communication skills and be able to establish working relationships with many different people.

Pathway Concentration Courses

- Introduction to Business and Technology
- Legal Environment of Business
- Entrepreneurship

Recommended Courses

- Any business and technology course
- Marketing Principles
- Work-Based Learning
- World Language
- Yearbook/Journalism

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Business Office Technology
- Entrepreneurship
- Management and Supervisory Development
- Office Administration

Colleges/Universities

- Business
- Business Administration

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Advertising and Promotion Manager
Bachelor Degree needed
$76,898 annual salary
60 annual average openings in Georgia

Chief Executive Officer
Bachelor Degree plus work experience needed
$155,168 annual salary
850 annual average openings in Georgia

Employment, Recruitment, and Placement Specialist
Bachelor Degree needed
$50,877 annual salary
440 annual average openings in Georgia

Social and Community Service Manager
Bachelor Degree needed
$59,904 annual salary
100 annual average openings in Georgia

Training and Development Manager
Bachelor Degree needed
$79,498 annual salary
60 annual average openings in Georgia

Additional Career Choices

Appraiser and Assessor of Real Estate
Accountant and Auditor
Administrator
Bank Teller
Business Educator
Chief Executive Officer
Claims Adjuster and Examiner
Computer Support Specialist
Computer Systems Analyst
Cost Estimator
Database Administrator
Entrepreneur
Financial Analyst and Manager
Investigator
Network Analyst
Paralegal and Legal Assistant
Personal Financial Advisor
Sales Manager
Tax Preparer

HUMAN RESOURCES MANAGEMENT PATHWAY

INDUSTRY CREDENTIAL

PRH (Professional in HR)
SPHR (Senior Professional in HR)
GPHR (Global Professional in HR)

Students will analyze the primary functions of human resources management which include recruitment, selection, training, development, compensation, and evaluation. The pathway is designed to equip students with operational knowledge of hiring, managing, and terminating employees. Throughout the third course, students will be introduced to the Human Resource Management role by following the life cycle of an employee from organizational entry to exit. Upon mastery of the standards in this pathway, students should be prepared to pass an End of Pathway assessment in this career area.

Pathway Concentration Courses

- Introduction to Business and Technology
- Legal Environment of Business
- Human Resources Principles

Recommended Courses

Prerequisites Introduction to Business and Legal Environment of Business

- Economics
- Entrepreneurship
- Human Resource Principles
- Intro to Business and Technology and Legal Environment of Business as Prerequisite
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Business Management degree at most colleges and universities

- Certificate program
- Associate degree
- Bachelor's degree
- Master's degree
- Doctoral degree

Career and Technical Student Organizations

- FBLA

Top Career Choices

Training and Development Specialist
Bachelor Degree needed
$55,900 annual salary
400 annual average openings in Georgia

Human Resources Managers
Bachelor Degree needed
$101,300 annual salary
90 annual average openings in Georgia

Labor Relations Specialists
Some College, no degree required
$54,900 annual salary
400 annual average openings in Georgia

Additional Career Choices

Compensation and Benefits Manager

Employee Training Specialist

Human Resources Assistant

Human Resources Manager

Human Resources Specialist

Job Analysis Specialist

Training and Development Manager

EARLY CHILDHOOD CARE AND EDUCATION PATHWAY

Educational services is the second largest industry which includes a variety of institutions that offer academic education or career and technical instruction. This includes elementary, middle and secondary schools, universities, colleges, professional schools, community or junior colleges and career and technical institutes. The overall demand for educational services will increase as growing emphasis on improving education along with retirements will create large numbers of job openings.

Pathway Concentration Courses

- Early Childhood Education I
- Early Childhood Education II
- Early Childhood Education III
- Early Childhood Education Practicum (not offered at CHHS)

Recommended Courses

- Any education course
- Psychology
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

- Georgia Highlands College - Douglasville Campus
  www.highlands.edu/areas-of-study/teacher-education-program
- West Georgia Technical College
  www.westgatech.edu/academics/ECCE/index.htm
- State University of West Georgia
  www.westga.edu/academics/education/
- Mercer University - Douglasville Campus
  https://education.mercer.edu/academic-progams/

Career and Technical Student Organizations

- FCCLA

Top Career Choices

Elementary School Teacher
Bachelor Degree needed
$46,888 annual salary
2,590 annual average openings in Georgia

Kindergarten Teacher
Bachelor Degree needed
$45,969 annual salary
330 annual average openings in Georgia

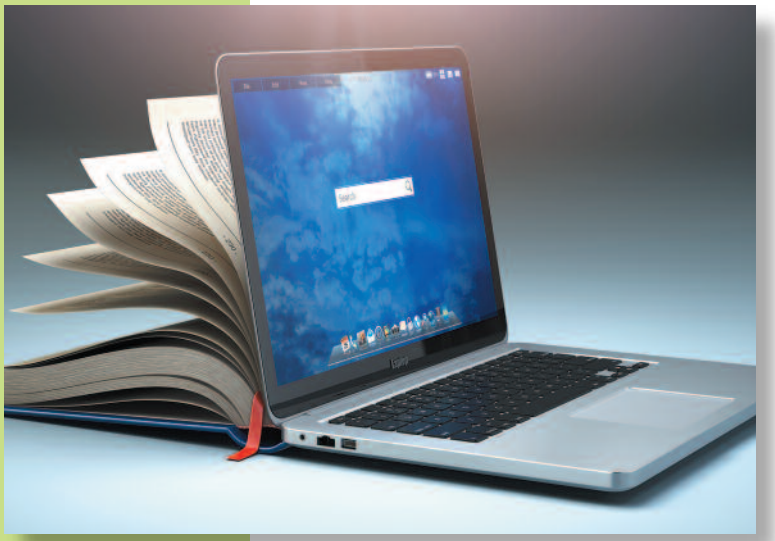
Preschool Teacher
Post-Secondary Vocational Training needed
$24,419 annual salary
500 annual average openings in Georgia

Special Education Teacher Preschool, Kindergarten or Elementary
Bachelor Degree needed
$46,358 annual salary
450 annual average openings in Georgia

Additional Career Choices

After-School Program Supervisor
Child Care Administrator
Child Care Director and Owner
Child Care Supervisor
Child Life Specialist
Education Administrator
Educational and Teacher Aide
Elementary School Teacher
High School Early Childhood Ed. Teacher
Recreation Attendant
Special Education Teacher
Preschool Teacher
University Instructor and Professor

TEACHING AS A PROFESSION PATHWAY



Educational services is the second largest industry which includes a variety of institutions that offer academic education or career and technical instruction. This includes child care through colleges and universities. The overall demand for educational services will increase as growing emphasis on improving education along with retirements will create large numbers of job openings.

Pathway Concentration Courses

- Examining the Teaching Profession
- Contemporary Issues in Education
- Teaching as a Profession Internship

Recommended Courses

- Any education course
- Human Growth and Development
- Psychology
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

- Georgia Highlands College - Douglasville Campus
  www.highlands.edu/areas-of-study/teacher-education-program
- West Georgia Technical College
  www.westgatech.edu/academics/ECCE/index.htm
- State University of West Georgia
  www.westga.edu/academics/education/
- Mercer University - Douglasville Campus
  https://education.mercer.edu/academic-progams/

Career and Technical Student Organizations

- FCCLA
- FEA

Top Career Choices

Middle School Special Education Teacher
Bachelor Degree needed
$46,891 annual salary
230 annual average openings in Georgia

Post-Secondary Education Administrator
Bachelor Degree plus work experience needed
$81,328 annual salary
160 annual average openings in Georgia

Post-Secondary Vocational Education Teacher
Bachelor Degree plus work experience needed
$45,386 annual salary
370 annual average openings in Georgia

Secondary School Teacher
Bachelor Degree needed
$49,956 annual salary

Additional Career Choices

Adult Educator
After-School Program Supervisor
Associate Teacher
Coach
County Extension Agent
Education Evaluator
Educational and Teacher Aide
Elementary School Teacher
High School Teacher
Media Specialist
Middle School Teacher
Post-Secondary Vocational Education
Recreation Attendant
School Administration
Social Services Aide
Special Education Teacher
Teacher

ADVANCED ACCOUNTING PATHWAY

INDUSTRY CREDENTIAL

NOCT I and II Accounting Business

These courses are designed to provide students with knowledge that can be applied in secondary education, the work place, and in their personal lives. During times of financial crisis t is imperative that students learn the importance of sound financial decision-making.

Pathway Concentration Courses

- Introduction to Business and Technology
- Accounting I
- Accounting II

Recommended Courses

- Any business and computer science course
- Marketing Principles
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Accounting
- Banking and Finance
- Business Administration Technology
- Business Logistics
- Business Studies

Colleges/Universities

- Accounting
- Actuarial Sciences
- Business Administration
- Economics
- Finance

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Accountants and Auditors
Bachelor Degree needed
$54,330 annual salary
1,090 annual average openings in Georgia

Actuary
Bachelor Degree needed
$84,822 annual salary
30 annual average openings in Georgia

Financial Analyst
Bachelor Degree needed
$80,787 annual salary
210 annual average openings in Georgia

Securities/Commodities Sales
Bachelor Degree needed
$81,536 annual salary
100 annual average openings in Georgia

Additional Career Choices

Bank Teller and Manager
Cash Manager
Chief Financial Officer
Controller
Corporate Finance Professional
Credit Analyst
Financial Counselor
Financial Manager
Insurance Agent and Broker
Insurance Manager
Investment Banker
Loan Officer
Personal Financial Advisor
Personal Wealth Manager
Real Estate Agents and Broker
Stock Broker

BUSINESS ACCOUNTING PATHWAY

Strong growth in accounting jobs throughout the next decade is expected to occur due to the increased growth in the number of new businesses and stricter accounting and auditing regulations.

Pathway Concentration Courses

- Introduction to Business and Technology
- Financial Literacy
- Principles of Accounting I

Recommended Courses

- Any business and computer science course
- Marketing Principles
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Accounting
- Medical Administrative Assistant
- Office Accounting Specialist

Colleges/Universities

- Accounting
- Business Education
- Business Management
- Economics
- Finance
- Marketing and Real Estate

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Accountants and Auditors
Bachelor Degree needed
$54,330 annual salary
1,090 annual average openings in Georgia

Bookkeeping/Accounting/Auditing Clerks
Moderate-Term On-the-Job Training needed
$29,619 annual salary
1,490 annual average openings in Georgia

Budget Analysts
Bachelor Degree needed
$58,698 annual salary
30 annual average openings in Georgia

Tax Examiner, Collector and Revenue Agent
Bachelor Degree needed
$43,909 annual salary
70 annual average openings in Georgia

Additional Career Choices

Auditing Clerk
Auditor
Bookkeeper
Budget Analyst
Certified Public Accountant
Corporate Accountant
Entrepreneur
FBI Agent
Financial Advisor
Financial Analyst
Forensic Accountant
Government Accountant
Income Tax Professional
Managerial Accountant
Non-Profit Accountant
Teacher

FINANCIAL SERVICES PATHWAY

This Pathway uses project based instruction to introduce students to the basics of the banking system, bank operating procedures, negotiable instruments, and the deposit and credit functions of banks. Methods used for measuring the financial performance of banks are analyzed. Current issues and future trends in banking are examined. Students explore the major functions of bank employees by completing a flow-of-work simulation. Students formulate business and individual investment decisions by comparing and contrasting a variety of investment options.

Pathway Concentration Courses

- Introduction to Business and Technology
- Financial Literacy
- Banking, Investing and Insurance

Recommended Courses

- Accounting 1 and 2
- Business Foundation and Business Management
- Financial Management
- Marketing 1 and 2
- Personal Financial Literacy
- Personal and Business Law 1 and 2
- Web Design
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges, Colleges/Universities

- Financial Planning
- Business Administration-Financial Analysis
- Accounting
- Consumer and Family Financial Services
- Disaster Relief Insurance Claim Adjuster

Career and Technical Student Organizations

- DECA
- FBLA

Top Career Choices

Auditor
Bachelor Degree needed
$73,910 annual salary

Insurance Sales Agent
1-2 years Post-Secondary training needed
$62,790 annual salary

Claims Adjuster
Post-Secondary training plus on-the-job training needed
$63,220 annual salary

Accountant
Bachelor Degree needed
$73,910 annual salary

Additional Career Choices

Business Teacher

Financial Project Specialist

Financial Planner

Research

Sales and Service

JROTC ARMY PATHWAY

The program's focus is reflected in its mission statement, "To Motivate Young People to be Better Citizens." It prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. Army JROTC is a stimulus for promoting graduation from high school, and it provides instruction and rewarding opportunities that will benefit the student, community, and nation.

Pathway Concentration Courses

- JROTC/ARMY I
- JROTC/ARMY II
- JROTC/ARMY III
- JROTC/ARMY IV

Recommended Courses

- Any CTAE course
- Modern US Military History (DCHS only)
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

- ROTC (Scholarships available to qualified students)
- Academy Nominations
- Armed Forces (Advanced Placement Enlistment Opportunities) Army, Air Force, Marines, Navy, Coast Guard
- Active Reserve and National Guard options available

Career and Technical Student Organizations

- Academic Team
- Color Guard
- Drill Team
- Leadership Team
- Raiders
- Rifle Team

Top Career Choices

Students enrolled in JROTC programs may find high-demand, high-wage, and high-skilled occupations in the public sector at www.occsupplydemand.org or if they plan on a career in the military they will find "Military Occupations" listed on GAfutures.org under the Career Planning Tab.

Additional Career Choices

Air Traffic Controller
Aircraft Repairer
Animal Care Specialist
Broadcast Specialist
Cavalry Scout
Chaplain
Computer and Detection Repairer
Construction Equipment Repairer
Criminal Investigation Special Agent
Dental Specialist
Equipment Repairer
Finance Officer
Health Care Specialist
Human Resource Specialist
Information Technology Specialist
Intelligence Analyst
Interpreter and Translator
Medical Laboratory Specialist
Military Police Officer
Missile Fire Control Operator
Missile Fire Control Maintainer
Multi Media Illustrator
Signal Intelligence Analyst
Special Forces
Technical Engineer
Transportation Management Coordinator
Visual Information Equipment Operator

JROTC MARINES PATHWAY

The program's focus is reflected in its mission statement, "To Motivate Young People to be Better Citizens." It prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. Marine JROTC is a stimulus for promoting graduation from high school, and it provides instruction and rewarding opportunities that will benefit the student, community, and nation.

Pathway Concentration Courses

- JROTC/Leadership Ed I
- JROTC/Leadership Ed II
- JROTC/Leadership Ed III
- JROTC/Leadership Ed IV

Recommended Courses

- Any CTAE course
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

- ROTC (Scholarships available to qualified students)
- Academy Nominations
- Armed Forces (Advanced Placement Enlistment Opportunities) Army, Air Force, Marines, Navy, Coast Guard
- Active Reserve and National Guard options available

Career and Technical Student Organizations

- Academic Team
- Color Guard
- Drill Team
- Raiders
- Rifle Team

Top Career Choices

Students enrolled in JROTC programs may find high-demand, high-wage, and high-skilled occupations in the public sector at www.occsupplydemand.org or if they plan on a career in the military they will find "Military Occupations" listed on GAfutures.org under the Career Planning Tab.

Additional Career Choices

Administration
Air Traffic Controller
Aviation Ordinance
Broadcast Specialist
Computer
Construction Equipment Repairer
Criminal Investigation
Engineering
Equipment Repair
Finance
Flight Crew
Human Resource
Information Technology
Intelligence
Lawyer
Military Police
Missile Fire Control Operator
Multi Media Illustrator
Music
Naval Aviation (Pilot)
Photographer
Supply Logistic
Transportation Management

JROTC NAVY PATHWAY

The NJROTC curriculum emphasizes citizenship and leadership development, as well as maritime heritage, t he significance of sea power, and naval topics such as the fundamentals of naval operations, seamanship, navigation and meteorology. Classroom instruction is complimented throughout the year with community service projects, drill competition, field meets, flights, visits to naval activities, marksmanship training, and other military training.

Pathway Concentration Courses

- NJROTC I - Introduction to NJROTC/ Cadet Field Manual
- NJROTC II - Maritime History/Nautical Science
- NJROTC III - Naval Knowledge/Naval Skills
- NJROTC IV - Naval Leadership/Global Awareness

Recommended Courses

- Any CTAE Course
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

- ROTC (Scholarships available to qualified students)
- Academy Nominations
- Armed Forces (Advanced Placement Enlistment Opportunities) Army, Air Force, Marines, Navy, Coast Guard
- Active Reserve and National Guard options available

Career and Technical Student Organizations

- Academic Team
- Athletic Team
- Drill Team
- Orienteering Team
- Rifle Team
- NJROTC Club
- Cyber Patriot Team

Top Career Choices

Students enrolled in JROTC programs may find high-demand, high-wage, and high-skilled occupations in the public sector at www.occsupplydemand.org or if they plan on a career in the military they will find "Military Occupations" listed on GAfutures.org under the Career Planning Tab.

Additional Career Choices

Art and Photography
Aviation
Business Management
Computer
Construction and Building
Education
Electronics
Emergency, Fire and Rescue
Energy and Power
Engineering
Finance and Accounting
Human Resource
Information Technology
Intelligence and Communication
Law Enforcement and Security
Legal
Mechanical and Industrial
Medical and Dental
Music
News and Media
Office and Administrative Support
Purchasing and Supply
Religion
Science
Special Operations
Telecommunications
Transportation

THERAPEUTIC SERVICES

ALLIED HEALTH AND MEDICINE PATHWAY

Employment is projected to increase 18% through 2026 - more than in any other industry. The healthcare industry offers jobs in a variety of establishments: hospitals, nursing and residential care facilities, physicians, dental, and other health practitioners offices, home health care services, outpatient care centers, ambulatory health care services and medical and diagnostic laboratories.

Pathway Concentration Courses

- Introduction to Healthcare Science
- Essentials of Healthcare (counts as 4th Science)
- Allied Health and Medicine

Recommended Courses

- Psychology
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Clinical Lab Technology
- Dental Assisting or Hygiene
- Medical Assisting
- Nurse Aid
- Pharmacy Technology
- Practical Nursing
- Radiologic Technology
- Registered Nursing
- Surgical Technology

Colleges/Universities

- Dentist
- Nurse Practitioner
- Pharmacist
- Physical Therapist
- Physician
- Registered Nurse
- Surgeon

Career and Technical Student Organizations

- HOSA

Top Career Choices

Dental Hygienist
Associate Degree needed
$55,390 annual salary
280 annual average openings in Georgia

Medical and Clinical Laboratory Technician
Associate Degree needed
$30,846 annual salary
250 annual average openings in Georgia

Pediatrician
First Professional needed
$139,298 annual salary
70 annual average openings in Georgia

Physical Therapist
Master Degree needed
$65,042 annual salary
120 annual average openings in Georgia

Surgical Technologist
Post-Secondary Vocational Training needed
$32,157 annual salary
140 annual average openings in Georgia

Additional Career Choices

Athletic Trainer
Audiologist
Clinical Laboratory Technician
Dental Hygienist
EMT
Medical Doctor
Medical Laboratory Technician
Occupational Therapist
Orthopedic Technologist
Paramedic
Physical Therapist
Radiologic Technologist
Repiratory Therapist
Surgical Technologist
Veterinarian

THERAPEUTIC SERVICES

SPORTS MEDICINE PATHWAY

This pathway is devoted to musculoskeletal disorders that alter the functional ability of the patient. Employment in this pathway is available for persons interested in pursuing careers in the Sports Medicine/Rehabilitative Services industry. Careers in this industry focus on improvement of ability to perform life tasks through the combined use of physical training (exercise, movement, and modification of activities), medications, adaptive equipment, orthotics (braces), and prosthesis devices. Careers in rehabilitation focus on helping people return to independence and self-reliance.

Pathway Concentration Courses

- Introduction to Healthcare Science
- Essentials of Healthcare
- Sports Medicine

Recommended Courses

- Human Anatomy/Physiology
- Internships
- Physics
- Psychology
- Work-based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Dental Hygiene
- Orthopedic Technology
- Physical Therapist Assistant
- Radiologic Technology
- Surgical Technology

Colleges/Universities

- Doctor
- Dentist
- Nurse Practitioner
- Physical Therapist
- Registered Nurse
- Surgeon

Career and Technical Student Organizations

- HOSA

Top Career Choices

Athletic Trainer
Bachelor Degree needed
$35,917 annual salary
20 annual average openings in Georgia

Occupational Therapist Aide
Short-Term On-the-Job Training needed
$20,259 annual salary
10 annual average openings in Georgia

Orthotist and Prosthetist
Bachelor Degree needed
$35,464 annual salary
10 annual average openings in Georgia

Physical Therapist
Doctorate Degree needed
$65,042 annual salary
120 annual average openings in Georgia

Physical Therapist Assistant
Associate Degree needed
$40,830 annual salary
90 annual average openings in Georgia

Additional Career Choices

Chiropractor

Doctor of Osteopathic Medicine

Doctor of Podiatric Medicine

Massage Therapist

Occupational Therapist

Orthopedic Doctor

Physical Therapy Assistant

Physician's Assistant

Radiologist

Radiologist Technician

HEALTH SCIENCE

THERAPEUTIC SERVICES

EMERGENCY MEDICAL RESPONDER PATHWAY

Employment of EMTs and paramedics is expected to grow much faster than average through 2014. Demand for emergency services will increase as a large segment of the population ages and becomes more likely to have medical emergencies. Those certified in EMT-Intermediate and EMT-Paramedic fields will have favorable job prospects. There will also be a demand for part-time, volunteer EMTs and paramedics in rural areas.

Pathway Concentration Courses

- Introduction to Healthcare Science
- Essentials of Healthcare Science
- Emergency Medical Responder

Recommended Courses

- Human Anatomy/Physiology
- Physics
- Psychology
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Fire Science
- Firefighter EMT

Colleges/Universities

- See www.GAfutures.org for additional information.

Career and Technical Student Organizations

- HOSA

Top Career Choices

EMT/Paramedic
Post-Secondary Vocational Training needed
$29,328 annual salary
290 annual average openings in Georgia

Fire Fighter
Long-Term On-the-Job Training needed
$33,030 annual salary
500 annual average openings in Georgia

Licensed Practical Nurse
Post-Secondary Vocational Training needed
$33,030 annual salary
960 annual average openings in Georgia

Registered Nurse
Associate Degree needed
$54,787 annual salary
3,340 annual average openings in Georgia

Additional Career Choices

Emergency Nurse

EMT and Paramedic

Firefighter

Paramedic Technologist

SPORTS AND ENTERTAINMENT MARKETING PATHWAY

Entertainment related to film and TV, music, gaming, digital media, and sports marketing are huge in Georgia. In addition to basic knowledge and skills in management and entrepreneurship, students will apply their knowledge and skills in order to master the industry's terminology, market arenas and venues, obtain sponsorships, maintain solid media relations, coordinate and manage campaigns and events, etc. This pathway culminates with an opportunity for students to take the MBA Research "A*S*K Marketing Concepts" end of pathway assessment or the NOCTI "Marketing Education Manager Trainee" end of pathway assessment.

Pathway Concentration Courses

- Marketing Principles
- Introduction to Sports and Entertainment Marketing
- Advanced Sports and Entertainment Marketing

Recommended Courses

- Advanced Marketing
- Any business and computer science course
- Entrepreneurship
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Business Administration
- Executive Coaching
- Expert Sales Management
- Project Management
- Visual Merchandising

Colleges/Universities

- Accounting
- Advertising
- Bridal Consultant
- Business Economics
- Communication
- Graphic Arts
- Hospitality Administration
- Management
- Marketing
- Professional Sales
- Sport Management
- Travel/Tourism

Career and Technical Student Organizations

- DECA
- FBLA

Top Career Choices

Marketing Manager
Bachelor Degree needed
$94,307 annual salary
310 annual average openings in Georgia

Marketing Research Analyst
Bachelor Degree needed
$61,464 annual salary
210 annual average openings in Georgia

Public Relations Specialist
Bachelor Degree needed
$48,672 annual salary
120 annual average openings in Georgia

Recreation Worker
Short-Term On-the-Job-Training needed
$21,570 annual salary
260 annual average openings in Georgia

Additional Career Choices

Advertising Account Executive
Agent
Brand Manager
Cashier
Communications Specialist
Customer Service Representative
Demonstrator and Product Promoter
Entertainment Marketer
Entrepreneur
Fashion Retailer
Market Research Analyst
Marketing Specialist
Media Buyer
Product Development Management
Public Relations Specialist
Purchaser
Retail Buyer
Retail Salesperson
Sales
Sales Representative
Sign Maker
Sports Marketer
Website Designer
Web Developer
Webmaster

HOSPITALITY, RECREATION AND TOURISM PATHWAY

Georgia represents the 8th largest tourism economy in the country and the 2nd largest industry in Georgia. The Hospitality, Recreation and Tourism Industry consists of the following Lodging, Hotels and Resorts; Conventions, Meetings, Trade Shows and Events; Restaurants and Food Service; Recreation, Attractions, Sporting Events and Parks and Travel, including Air, Rail, Auto and Coach. Since the industry is primarily a service-oriented industry, workers will need good communication skills, and they will have to understand the importance of meeting the needs of individuals.

Pathway Concentration Courses

- Marketing Principles
- Hospitality, Recreation, and Tourism Essentials
- Hospitality, Recreation, and Tourism Management

Recommended Courses

- Advanced Marketing
- Any business or computer course
- Entrepreneurship
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

- Adventure Tourism
- Communications
- Culinary
- Hospitality Management
- Hospitality Operations Management
- International Tourism
- Marketing Management
- Meetings & Event Planning
- Ski Guide
- Sports Marketing
- See www.GAfutures.org for additional information.

Career and Technical Student Organizations

- DECA
- FBLA
- FCCLA

Top Career Choices

Meeting, Convention, Events Planners
High School and on the job training
$47,350 per year
10% increase expected

Hotel and Lodging Managers
Bachelor Degree needed
$51,840 per year

Restaurant Manager
High School and on the job training
$50,820 per year

Travel Agent
High School and on the job training
$36,460 per year

Public Relations
Bachelors degree
$58,020 per year

Additional Career Choices

Brand Manager
Catering Manager
Communications Specialist
Country Club Marketing and Management
Cruise Director
Customer Account Representative
Economic Development Specialist
Entertainment Marketer
Entrepreneur
Golf Course Marketing and Management
Hotel Management
International Tourism Management
Parks and Recreation Management
Purchaser
Real Estate Agent
Recreation and Amusements Marketer
Restaurant Management
Sales Representative
Social Media Marketer
Sports and Entertainment Marketer
Tourism Director
Travel Agent
Travel Blogger
Travel Planner

NUTRITION AND FOOD SCIENCE PATHWAY

INDUSTRY CREDENTIAL

ServSafe Food Safety Handler

Employment in this field is expected to grow faster than average through 2014 as a result of the increasing emphasis on disease prevention through improved dietary habits. A growing and aging population will increase the demand for meals and nutritional counseling agencies in hospitals, residential care facilities, schools, prisons, community health programs, and home health care.

Pathway Concentration Courses

- Food, Nutrition, and Wellness
- Food for Life (counts as 4th Science)
- Food Science (counts as 4th Science)

Recommended Courses

- Any business and computer science course
- Any science elective
- Early Childhood Education I
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Culinary Arts
- Food and Beverage Management
- Food Production Assistant, Worker, or Apprentice
- Hotel/Restaurant/Tourism Management

Colleges/Universities

- Dietetics/Dietician
- FACS Education
- Food, Nutrition and Wellness Studies
- Food Science and Technology
- See www.GAfutures.org for additional information.

Career and Technical Student Organizations

- FCCLA

Top Career Choices

Chef and Head Cook
Work experience needed
$31,304 annual salary
110 annual average openings in Georgia

Dietician/Nutritionist
Bachelor Degree needed
$42,619 annual salary
80 annual average openings in Georgia

Food Scientist and Technologist
Bachelor Degree needed
$55,869 annual salary
10 annual average openings in Georgia

Food Services Manager
Work experience needed
$46,384 annual salary
400 annual average openings in Georgia

Health Education
Master Degree needed
$53,290 annual salary
90 annual average openings in Georgia

Additional Career Choices

Agricultural Engineer
Biochemist
Chemical Technician
Consumer Representative
Dietetic Technician
Family and Consumer Science Teacher
Flavorist
Food Inspector
Food Service Manager
Geriatric Food Designer
Health Educator
Health Inspector
Microbiologist
Product Evaluation Scientist
Research and Development Specialist
Sensory Scientist
Teacher Educator
Technical Writer
Toxicologist

PERSONAL CARE SERVICES

COSMETOLOGY PATHWAY

This pathway is formulated for students who desire to become licensed cosmetologists. All participating students are required by the Georgia State Board of Cosmetology to obtain a total of 1500 unit hours to be eligible for both the written and practical state test. Students benefit from the program because it allows the student the opportunity to obtain at least half of the required state board hours.

Pathway Concentration Courses

- Introduction to Personal Care Services
- Cosmetology Services II
- Cosmetology Services III

Recommended Courses

- Advanced Cosmetology Services
- Chemistry
- Cosmetology Services - Core IV
- Internship I, II, III, IV, V
- Licensure and Employment Opportunities
- Science and Art of Makeup
- Science of Advanced Skincare
- Science of Cosmetology
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Barber License
- Cosmetology Instructor License
- Cosmetology License
- Esthetician License
- Hair Designer License
- Master Cosmetology License
- Nail Technician License

Colleges/Universities

- Cosmetology

Career and Technical Student Organizations

- SkillsUSA

Top Career Choices

Salary ranges from $15,530 to $42,460 per year. In order to obtain a license in cosmetology, nail technology, or skin care in the state of Georgia, students must complete the requirements listed below. Please contact the Georgia State Board of Cosmetology for more information.

Requirements:

COSMETOLOGIST: 1500 Hours, Apprenticeship 3000 Hours

HAIR DESIGN: 1325 Hours, Apprenticeship 2650

ESTHETICIAN: 1000 Hours, Apprenticeship 2000 Hours

NAIL TECHNICIAN: 525 Hours, Apprenticeship 1050 Hours

Additional Career Choices

Barber Stylist

Chemical Texture Specialist

Color Specialist Chemist

Cosmetologist

Cutting Specialist

Editorial Specialist

Esthetician

Hair Color Specialist

Hairstylist

Make-up Artist

Master Cosmetologist

Nail Technicians

Permanent Wave Technician

Platform Artist

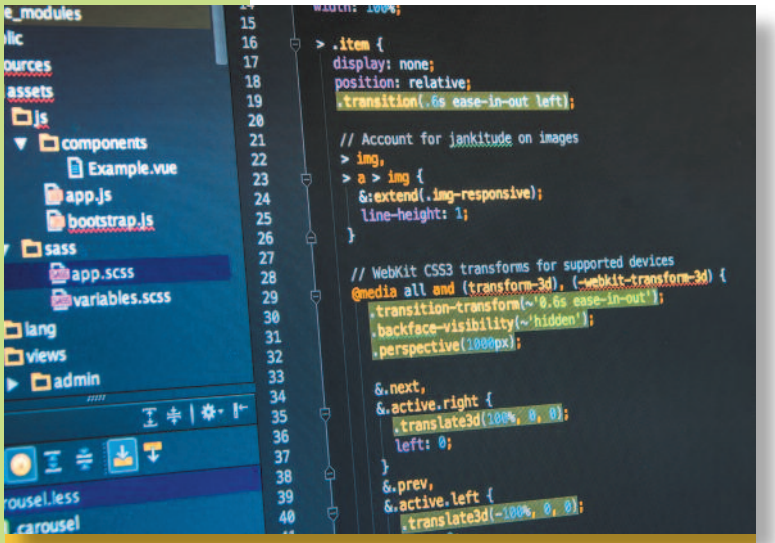
Receptionist

Salon Owner

Shampoo Tech

Wig Stylist

WEB AND DIGITAL DESIGN PATHWAY



INDUSTRY CREDENTIAL

W3Schools HTML Certification

This pathway instructs students on the basics of designing a web page and leads to advanced web design and 3D animation. Web design can be found in every area of business and industry, as well as in individuals' personal life. Students will have the opportunity to learn skills that will help them create web pages, gaming and other digital media features.

Pathway Concentration Courses

- Introduction to Digital Technology
- Digital Design
- Web Design

Recommended Courses

- Any business and computer science course
- Broadcast/Video Production
- Introduction to Graphics and Design
- Marketing Principles
- World Language
- Yearbook/Journalism

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Computer Animation and Multimedia
- Computer Simulation
- Digital Media
- Internet Specialist - Web Site Design
- Printing and Graphics Technology
- Web Site Designer

Colleges/Universities

- Animation
- Computational Media
- Computer Science
- Graphic Designer

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Computer Specialist
Associate Degree needed
$55,640 annual salary
80 annual average openings in Georgia

Graphic Designer
Bachelor Degree needed
$44,034 annual salary
160 annual average openings in Georgia

Multi-Media Artist and Animator
Bachelor Degree needed
$44,554 annual salary
40 annual average openings in Georgia

Additional Career Choices

Computer Service Technician
Database Developer
Graphic Designer
Help Desk Support
Illustrator
Internet Specialist
Multimedia Developer
Network Analyst
Network Engineer
Programmer
Project Manager
Software Trainer
Video Game Developer
Web Developer
Webmaster
Website Designer

INTERNET OF THINGS PATHWAY

This pathway examines the impact of computing on the world around us. Engage your creativity, demonstrate and build your problem solving all while connecting the relevance of computer science to society! Examine how personal devices, smart cars and the Internet interact. Courses are based on a discovery and hands on learning. Don't just read about it – create and do it!

Pathway Concentration Courses

- Introduction to Digital Technology
- Computer Science or Principles or AP Computer Science Principles (counts as 4th Science or 4th Math)
- Embedded Computing (counts as 4th Science or 4th Math)

Recommended Courses

- Any Computer Science course
- Art
- Math / Science classes
- Robotics
- Sociology / Psychology
- STEAM or Engineering
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Computer Science
- Internet Specialist
- Programming
- Computer Simulation

Colleges/Universities

- Computer Science
- Computational Media
- Computer Information Systems

Career and Technical Student Organizations

- DECA
- FBLA
- SkillsUSA

Top Career Choices

Web Developer
Associate Degree needed
$82,000 Median Salary
27% growth from 2014 – 2017

Information Architect
Bachelor's Degree needed
$100,240 Median Salary
9% growth from 2014 – 2017

Software Developer
Bachelor's degree needed
$100,690 Median Salary
17% growth from 2014 - 2024

Additional Career Choices

App Developer
Business Intelligence Analysts
Computer Programmer
Computer Systems Analysts
Cyber Security Consultant
Data Miner
Database Administrator
Game Developer
Information System
IT Consultant
Multimedia Programmer
Researcher
Software Engineer
Software QA Tester
System Analyst
Technical Writer

PROGRAMMING PATHWAY

The Programming pathway gives many opportunities to strengthen problem solving skills and provides needed skills in all disciplines.

Pathway Concentration Courses

- Introduction to Digital Technology
- Computer Science Principles
- Programming, Apps, Games and Society (AHS only)

Recommended Courses

- Any business and computer science course
- Broadcast/Video Production
- Introduction to Engineering Drawing and Design
- Introduction to Graphics and Design
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Business Information Systems
- Computer Forensics
- Computer Information Systems
- Computer Programming
- Computer Software Engineering
- Computer Science
- Information Science
- Information Technology
- Mathematics

Colleges/Universities

- See www.GAfutures.org for additional information.

Career and Technical Student Organizations

- FBLA
- SkillsUSA

Top Career Choices

Computer Programmers
Bachelor Degree needed
$73,674 annual salary
330 annual average openings in Georgia

Computer Software Engineers
Bachelor Degree needed
$77,022 annual salary
730 annual average openings in Georgia

Computer System Analysts
Bachelor Degree needed
$74,443 annual salary
890 annual average openings in Georgia

Computing and Information Systems Managers
Bachelor Degree plus experience needed
$101,400 annual salary
530 annual average openings in Georgia

Additional Career Choices

Actuaries

Computer Scientist

Computer Software Engineer

Computer Systems Analyst

Database Administrator

Mathematician

COMPUTER SCIENCE PATHWAY

Careers in Computer Science lead individuals to create, modify, and test codes - all while inventing and designing new approaches to computing technology and finding innovative uses for existing technology. Career area focus requires solving complex problems in computing for business, medicine, science, and other fields.

Pathway Concentration Courses

- Introduction to Digital Technology
- Computer Science Principles or AP Computer Science Principles (counts as 4th Science or 4th Math)
- AP Computer Science (counts as 4th Science or 4th Math)

Recommended Courses

- Any Advanced Math Course
- Any Business and Computer Science Course
- Entrepreneurship
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Computer Engineering Technology
- Electromechanical Engineering Technology
- Telecommunications Engineering Technology
- Industrial Engineering Technology
- Electrical and Computer Engineering Technology
- Computer Engineering Technology
- Computer System Design Specialist
- Network Design Technology Specialist
- Network Specialist

Colleges/Universities

- Computer Systems Engineering
- BA with a Major in Applied Computer Science
- BS with a Major in Computer Science
- BS with a Major in Computer Game Design and Development

Top Career Choices

Employment of computer programmers is expected to increase 12 percent from 2010 to 2020, about as fast as the average for all occupations.

Computer Programmers
Bachelor Degree needed
$75,400 annual salary
230 annual average openings in Georgia

Computer System Analysts
Bachelor Degree needed
$73,800 annual salary
810 annual average openings in Georgia

Software Developers, Application
Bachelor Degree needed
$86,300 annual salary
340 annual average openings in Georgia

Additional Career Choices

Computer Hardware Engineers
Computer Info Systems Managers
Computer Network Architects
Computer Programmers
Computer System Analysts
Database Administrators
Information Security Analysts
Network Computer Systems Administrators
Software Engineers
Video Game Designers

CYBERSECURITY PATHWAY

The increased use of computers has created a high demand for specialists to provide advice to users, as well as for day-to-day administration, maintenance, and support of computer systems and networks. This pathway is designed to introduce students to the field of cybersecurity while examining best practices related to the management of security, ethics, trust, internal/external threats, cryptography, and wireless technologies. Computer-related jobs are generally high paying, and those working in the profession require a foundational knowledge of problem solving and logical thinking.

Pathway Concentration Courses

- Introduction to Digital Technology
- Introduction to Cybersecurity
- Advanced Cybersecurity

Recommended Courses

- Any Advanced Math Course
- Any Business and Computer Science Course
- Any Engineering Course
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Cybersecurity
- Cyber Crime Specialist
- Computer Support Specialist

Colleges/Universities

- Computer Support Specialist
- Computer Science
- Management Information Systems

Career and Technical Student Organizations

- FBLA
- TSA

Top Career Choices

Computer and Information Systems Managers
Bachelor Degree needed
$134,679 annual salary
333 annual average openings in Georgia

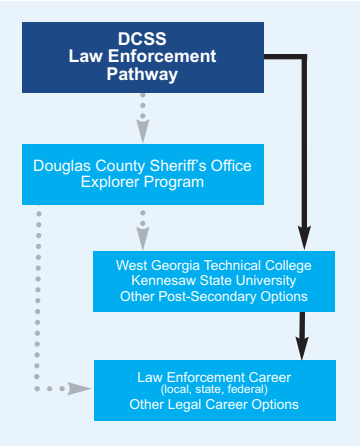
Computer Support Specialist
Some College/No Degree Required
$44,700 annual salary
830 annual average openings in Georgia

Network and Computer System Administrators
Bachelor Degree needed
$83,734 annual salary
246 annual average openings in Georgia

Additional Career Choices

Administrative Support Workers Network
Computer and Info Systems Managers
Computer System Administrators
Computer Network Support Specialist
Computer Operators
Computer User Support Specialist
First-Line Supervisors of Office

LAW ENFORCEMENT PATHWAY



This pathway is designed to provide students with career-focused educational opportunities in various public safety fields. Each course has elements which cover tactics, methods, and skills utilized in law enforcement and other public safety organizations. Students have opportunity to be involved with the Douglas County Sheriff's Office Explorer Program.

Pathway Concentration Courses

- Introduction to Law, Public Safety, Corrections, and Security
- Criminal Justice Essentials
- Criminal Investigations

Recommended Courses

- Accounting
- Anatomy
- Any health care science course
- Forensics Science Elective
- Introduction to Business and Technology
- Legal Environment of Business
- Wildlife Management
- Work-Based Learning
- World Language

Program Completers Currently in Law Enforcement at

- Douglas County Sheriff's Office
- Douglasville Police Department
- Georgia State Patrol
- Cherokee County Sheriff's Office
- MARTA Police Department

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Criminal Justice Technology
- Law Enforcement Technician

Colleges/Universities

- Criminal Justice
- Criminology
- Pre-law

Career and Technical Student Organizations

- SkillsUSA

Top Career Choices

Intership Opportunities
Douglas County District Attorney's Office

Corrections Officer
Moderate-Term On-the-Job Training needed
$27,498 annual salary
470 annual average openings in Georgia

Forensic Science Technician
Associate Degree needed
$35,818 annual salary
20 annual average openings in Georgia

Lawyer
First Professional Degree needed
$115,960 annual salary
460 annual average openings in Georgia

Police and Sheriff's Patrol Officer
Long-Term On-the-Job Training needed
$35,402 annual salary
910 annual average openings in Georgia

Additional Career Choices

Attorney
Bailiff
Border Patrol
Correctional Officer/Jailer
Crime Scene Investigator
Detective
Dispatcher or Communications Officer
Forest Ranger or Game Warden
Judge
Paralegal
Parole Officer
Police Officer
Private Detective and Investigator
Private Security Guard
Probation Officer
Sheriff's Deputy
Special Agent
State Trooper

MARKETING AND MANAGEMENT PATHWAY

Students develop knowledge and skills in the foundational areas of marketing (economics, human relations and business basics) and the functional areas of marketing (product and service planning, marketing-information management, purchasing and pricing, selling and promotion, risk management, financing and distribution/logistics), as well as international marketing, management and entrepreneurship.

Pathway Concentration Courses

- Marketing Principles
- Marketing and Entrepreneurship
- Marketing Management

Recommended Courses

- Any business and computer science course
- Sports and Entertainment Marketing
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Business Administration
- Entrepreneurship
- Expert Sales Management
- Fashion Design and Marketing
- Retail and Merchandising

Colleges/Universities

- Accounting
- Advertising
- Business Economics
- Communication
- Graphic Arts
- Hospitality Administration
- International Business
- Management
- Marketing
- Professional Sales
- Real Estate
- Risk Management and Insurance

Career and Technical Student Organizations

- DECA
- FBLA

Top Career Choices

Chief Executive Officer
Base annual salary $80,253-$253,036
National average annual salary $187,000

Global Marketing Manager
Base annual salary $59,963-$144,916
National average annual salary $103,000

Content Marketing Director
Base annual salary $54,506-$145,269
National average annual salary $92,000

Creative Director
Base annual salary $44,426-$152,383
National average annual salary $85,000

Additional Career Choices

Advertising Director

Digital Marketing

E-Commerce Marketing Director

Finance Manager

International Marketing Executive

Public Relations Manager

Sales Director

Social Media Director

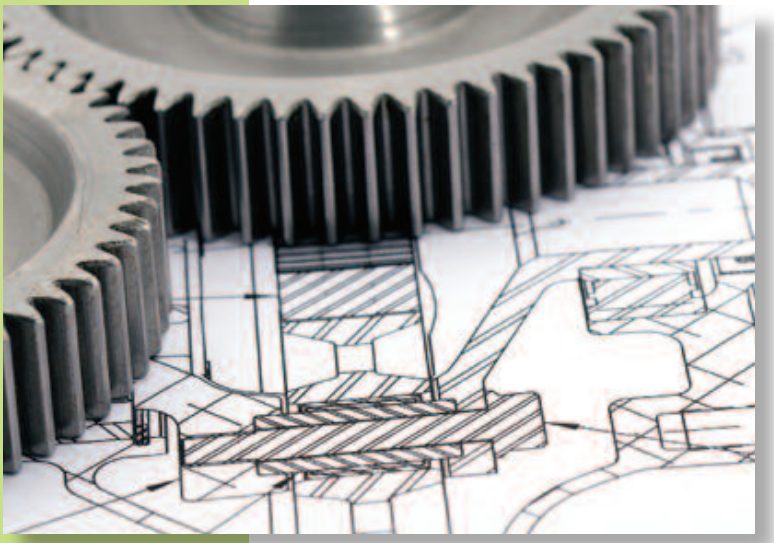
Sports and Entertainment Agent

Real-Estate Agent

Retail Salesperson

Telemarketer

ENGINEERING AND TECHNOLOGY PATHWAY



The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used i n combination with a teamingapproach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities, and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

Pathway Concentration Courses

- Foundations of Engineering and Technology
- Engineering Concepts
- Engineering Applications

Recommended Courses

- Algebra/Geometry
- Chemistry
- Environmental Science
- Physics
- Trigonometry
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

High School Diplomas

- Automotive
- CAD
- CNC
- Diesel
- Electrical
- Electronics
- Engineering Pathway Seal
- HUAC
- Industrial
- Networking
- Manufacturing
- Programming
- Tech Certificate
- Welding

Colleges Degrees

- Aerospace
- Biomedical
- Civil
- Computer
- Design
- Electrical
- Environmental

Career and Technical Student Organizations

- FIRST Robotics
- Georgia Gravity Games
- SkillsUSA

Top Career Choices

Biomedical $62,010 yearly

Chemical $67,808 yearly

Civil $58,763 yearly

Computer $72,030 yearly

Electrical $67,550 yearly

Environmental $59,133 yearly

Geological/Mining $60,327 yearly

Hardware/Software $70,477 yearly

Materials $68,358 yearly

Mechanical $64,695 yearly

Additional Career Choices

Aerospace
Applications
CAD Drafting
Civil Engineer
Cost Engineer
Designer
Industrial
Machinist
Manufacturing
Network
Nuclear
Project
Quality Control Inspector
Systems

ENGINEERING DRAFTING AND DESIGN PATHWAY

Students are encouraged to have a solid background in mathematics, science, and technology. This pathway is enjoyed by students who have a mechanical nature. Employment opportunities continue to increase in engineering-related industries. There is an increasing need to explore new materials, manufacturing processes, and ways to protect the environment.

Pathway Concentration Courses

- Introduction to Drafting and Design
- Survey of Engineering Graphics
- 3D Modeling and Analysis

Recommended Courses

- Advanced Algebra/Trigonometry (or math curriculum equivalent)
- Calculus (or math curriculum equivalent)
- Entrepreneurship
- Introduction to Animation and 3D Design
- Introduction to Business and Technology
- Physics
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- CAD Operator

Colleges/Universities

- Aerospace Engineer
- Apparel and Textile Engineer
- Designer
- Electrical Engineer
- Industrial Engineer
- Instrumentation Engineer
- Mechanical Engineer
- Mechanical Engineer Technician
- Nuclear Engineer
- Power Engineer
- Telecommunication Engineer

Career and Technical Student Organizations

- SkillsUSA

Top Career Choices

Architectural and Civil Drafters
Post-Secondary Vocational Training needed
$42,078 annual salary
80 annual average openings in Georgia

Commercial and Industrial Designers
Bachelor Degree needed
$52,312 annual salary
30 annual average openings in Georgia

Graphic Designer
Bachelor Degree needed
$44,034 annual salary
160 annual average openings in Georgia

Industrial Engineer
Bachelor Degree needed
$103,000 annual salary

Additional Career Choices

Civil Engineer
Designer
Drafter
Electrical Engineer
Environmental Engineer
HVAC Designer
Industrial Engineer
Instrumentation Engineer
Manufacturing Manager
Materials Engineer
Mechanical Engineer
Nuclear Engineer
Power Engineer
Production Manager
Technician

AUTOMOBILE MAINTENANCE LIGHT REPAIR PATHWAY

INDUSTRY CREDENTIAL
ASE Student Certification

The auto mechanics of the past were self-taught, learning from local auto shops or dealerships. Employers are now hiring employees with good people skills and backgrounds in electronics, computers and communications, along with math and problem-solving skills. This program will teach "head skills" and "hand skills" to prepare the student for the world of automotive technology careers and to meet the needs of prospective employers.

Pathway Concentration Courses

- Basic Maintenance and Light Repair FY15
- Maintenance and Light Repair II
- Maintenance and Light Repair III

Recommended Courses

- Advanced Algebra/Trigonometry
- Engine Performance Concepts
- Entrepreneurship
- Heating Ventilation and Air Conditioning Concepts
- Introduction to Business and Technology
- Mathematics of Finance
- Physics
- Preventative Maintenance Inspection
- Work-Based Learning
- World Language

Post-Secondary Degrees, Diplomas, and Certificates

Technical Colleges

- Automotive Technology/Technician
- Welding
- ASE

Colleges/Universities

- Education
- Business Management
- Automotive Engineering

Career and Technical Student Organizations

- SkillsUSA

Top Career Choices

Automotive Service Technician and Mechanics
Post-Secondary Vocational Award needed
$34,549 annual salary
1,000 annual average openings in Georgia

Bus and Truck Mechanic/Diesel Engine Specialist
Post-Secondary Vocational Award needed
$36,504 annual salary
380 annual average openings in Georgia

Electrical and Electronics Repairers, Commercial and Industrial Equipment
Post-Secondary Vocational Award needed
$47,611 annual salary
130 annual average openings in Georgia

Vocational Teacher, Post-Secondary School
Bachelor Degree or higher plus work experience
$44,637 annual salary
250 annual average openings in Georgia

Additional Career Choices

Auto Manufacturer Sales
Auto Manufacturer Service
Auto or Body Technician
Automotive Engineer
Automotive Mechanist
Automotive Parts Sales
Automotive Sales
Body Shop Manager
Dealership or Shop Owner
DOT Salvage Inspector
Insurance Adjuster
Parts Professional
Quality Control Technician
Retail
Service Advisor
Service Director Dealership
Specialized Technician Teacher
Technician (ASE Certified)
Warranty Clerk
Waste Management (EPA)

DUAL ENROLLMENT

All students who wish to participate in Dual Enrollment must have an advisement conference with the school counselor EACH SEMESTER (fall, spring, and/or summer). The law requires the advisement session is to take place with the high school counselor, parent and student. It is the responsibility of the school counselor to abide by DCSS board policy and to discuss applicable information from the following topics with the student and parent/guardian in a Dual Enrollment conference.

DUAL ENROLLMENT

IMPORTANT CONSIDERATIONS

- **Required SAT/ACT or Accuplacer testing has been completed or is scheduled.**
- **Academic Rigor** Understanding the Dual Enrollment courses will be rigorous courses.
- **Attendance** Recognizing the importance of attending all classes.
- **Communication Skills** Knowing when to ask for the professor's help and learning early each semester how to contact each professor. Understanding that communication from the professor will be with the student and **NOT** the parent(s)/guardian(s).
- **Satisfactory Academic Progress** Understanding what the postsecondary institution's SAP is set by the institution.
- **Syllabus** Being familiar with each college professor's syllabus which will be the road map for the course and include al important deadlines.
- **Transportation** Provided only for CCI Dual Enrollment courses.

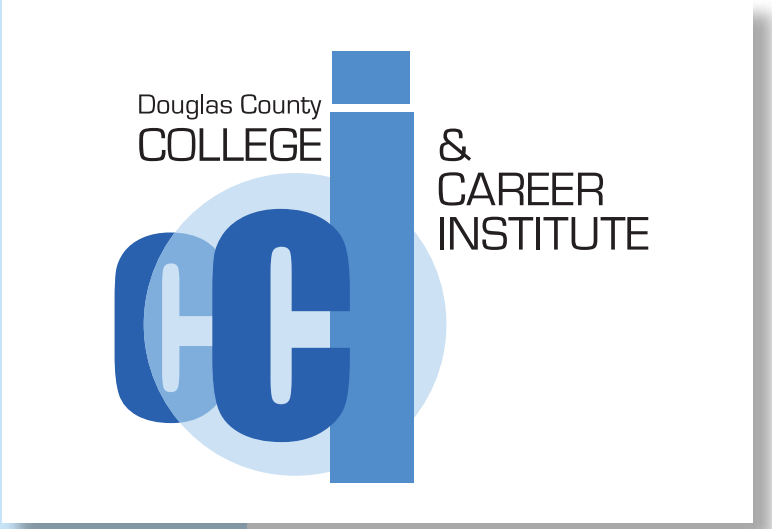
ELIGIBILITY

- **9th, 10th, 11th, or 12th Grade Student** Understanding that students in grades 9-12 eligible.
- **Admissions Requirements** Understanding by parent and student regarding admissions requirements at selected Dual Enrollment college, university and/or technical college.
    - *Understanding that there are SAT/ACT or Accuplacer and grade requirements (grade point average) at each college/ university and /or technical college unique to the postsecondary school.*
    - *Knowing the institution's minimum age requirements.*
    - *Making sure that the student understands the admission deadlines for the school of his/her choice. Students must converse with admission/college representative for up-to-date requirements as well as use the institution's admissions website.*
    - *Making certain that student understands that Board of Regents schools may not accept Accuplacer testing requirements and entrance scores for admission into any of the college programs.*

OTHER

- **Dropping Dual Enrollment Courses - VERY IMPORTANT: At any time during the semester that a Dual Enrollment course is dropped the student must immediately (within 24 hours) notify the school counselor at the high school in writing as well as by phone. Failure to notify the counselor will result in a failing grade and zero credit being recorded on the high school transcript.** The high school counselor needs to know if the student drops below 12 hours as a Dual Enrollment full-time student and thus, the status is changed from full-time to part-time status.
- **Summer** Dual Enrollment courses were available in Summer 2016.
- **Taking Courses at Two Postsecondary schools or Transferring from one Post-secondary Institution to Another** Students may take courses during the same semester at different postsecondary institutions or may transfer between semesters from one institution to the other.
- **Transportation and Additional Expenses** Making certain that student and parent know that they must provide their own transportation for classes taken on the college campus. Items OTHER THAN tuition, mandatory fees, and books are the responsibility of the student and parent/guardian under the Dual Enrollment Program.

COLLEGE AND CAREER INSTITUTE



COLLEGE AND CAREER INSTITUTE
4600 Timber Ridge Drive, Building D
Douglasville, GA 30135
770.947.7690
www.douglascountyCCI.com

The Douglas County College and Career Institute (CCI) is a collaboration between the Douglas County School System, West Georgia Technical College (WGTC), and the Douglas County Chamber of Commerce to provide opportunities for students to receive both high school and college credit through Dual Enrollment. Students also gain technical skills that increase job prospects whether headed directly into the job market or on to college. The CCI building is located on the West Georgia Technical College campus in Douglas County.

HIGH SCHOOL AND COLLEGE PROGRAM OPPORTUNITIES

Automotive
Computer Information Systems
Cosmetology
Criminal Justice
Culinary Arts
Dental Assisting
Early Childhood Education
Game Development
*Graphic Arts***
Patient Care Assisting
Pharmacy
*Audio/Video Technology and Film***
Welding

** High School Credit only. No college entrance requirements. Open to grades 9-12.

COLLEGE AND CAREER INSTITUTE

HIGH SCHOOL COURSES 9-12

AUDIO/VIDEO TECHNOLOGY AND FILM
Topics covered include history of mass media, terminology, safety, basic equipment, script writing, production teams, production and programming, set production, lighting, recording and editing, studio production, and professional ethics. SkillsUSA an organization that provides leadership training and/or for reinforces specific career and technical skills.

GRAPHIC ARTS
The goal of this course is to provide all students with an introduction direction to the principles of graphic communications and design. Graphic Communications includes the family of market segments embracing the technologies of printing, publishing, packaging, electronic imaging, and their allied industries. These industries are often referred to as the graphic arts, print, or imaging industries.

WHAT IS DUAL ENROLLMENT?

Dual Enrollment programs are operated in a partnership between WGTC and secondary school systems. Students must first meet the requirements of their local school system to establish eligibility for participation in any program with WGTC. If eligible, students must meet college entrance requirements and, upon successful completion of required coursework, will receive both high school and college credit.

WHAT IS REQUIRED FOR ADMISSION?

- Current student enrolled in an eligible public or private high school (or home school program) in Georgia.
- Official SAT, ACT, ASSET or COMPASS or Accuplacer placement test scores. (Requirements can be found on next page.)
- Dual Enrollment admissions application.
- Dual Enrollment Student Participation Agreement (must be signed by high school counselor and parent/guardian).

ENROLLMENT STEPS

Step 1 Submit official SAT/ACT, ASSET, or COMPASS test scores or take the Accuplacer placement exam.

Step 2 Complete the admissions application. http://www.westgatech.edu/mowr/index.htm

Step 3 Meet with your high school counselor and parent/guardian to complete the Dual Enrollment Student Participation Agreement. Scan and email the Agreement to DualEnrollment@westgatech.edu or drop it off at the WGTC Campus.

Step 4 Login in or set up a GAfutures account at GAFutures.org, and complete the Dual Enrollment (financial aid) application online.

Step 5 Receive acceptance letter/email.

For additional information, please contact us at MOWR@westgatech.edu.

STEPS TO COMPLETE FUNDING APPLICATION

This MUST be completed EVERY semester of attendance while still in high school.

Step 1 Sign in to GAFutures.org or create account.

Step 2 Click on "Dual Enrollment" under What's New box on right hand side of page.

Step 3 Scroll down page and click on "Dual Enrollment online application" under Application Procedures.

Step 4 Click "Add New Application".

Step 5 Fill in ALL Blanks.
Name, birthdate, address, phone, email
Select High school you attend and click > to add High school
Select West Georgia Technical College and click > to add college

Step 6 Click in check box to certify that all of the information is correct.

Step 7 Click Submit at bottom of page.

For additional information, please contact us at MOWR@westgatech.edu.

COLLEGE AND CAREER INSTITUTE

DUAL ENROLLMENT AND CERTIFICATES OFFERED

* = Diploma AAS = Associates Applied AS = Associate of Science

AUTOMOTIVE *
2 consecutive semesters earn Automotive Engine Repair (AE61) and Automotive Electrical/Electronic Systems (AE41) Certificates

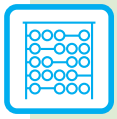
COMPUTER INFORMATION SYSTEMS * AAS
2 consecutive semesters earn PC Repair and Network Technician (PR21) and Help Desk Specialist (HD41) Certificates

COSMETOLOGY *
1 semester earns Shampoo Technician (ST11) Certificate
2 semesters earn Shampoo Technician (ST11) and Advanced Cosmetology Certificates

CRIMINAL JUSTICE * AAS, AS
2 semesters earn Criminal Justice Fundamentals (CJ71) Certificate

CULINARY ARTS * AAE
2 consecutive semesters earn Food Production Worker I (FPW) and Prep Cook (PC51) Certificates

DENTAL ASSISTING
Age requirements will apply. Student will receive Basic certificate and continue on in Advanced courses.
Student must return in the summer following graduation and complete courses for Advanced certificate.
2 consecutive semesters earn Basic Dental Assisting (BDA1) and Advanced Dental Assisting (AD21) Certificates



EARLY CHILDHOOD EDUCATION *AAS
2 semesters - 1 semester earns Child Development Specialist (CD61) and Early Childhood Care and Education Basics (EC31) Certificates.

GAME DEVELOPMENT
2 semesters earn Animation and Game Design Specialist (AAG1) Certificate

PATIENT CARE ASSISTING (AGE REQUIRMENTS APPLY)
2 semesters earn Nurse Aide (CN21) Certificate

PHARMACY (AGE REQUIREMENTS APPLY)
Student will complete certificate upon clinical completion in summer quarter or during senior year.
3 semesters earn Pharmacy Assistant (PB71) Certificate

WELDING *
1 semester earns Basic Shielded Metal Arc Welder Certificate
2 semesters earn Basic Shielded Metal Arc Welder and Advanced Shielded Metal Arc Welder Certificates

WORK-BASED LEARNING

The Work-Based Learning (WBL) program is designed to provide experiences and activities that support a school to career transition. This simply means that students are allowed to work off campus in the business community in order to learn more about a chosen career. Once a student has met all requirements for WBL, the WBL Coordinator will determine the correct WBL placement for the student. The students will earn one unit of credit for each completed WBL course.

WBL IS AVAILABLE THROUGH THE FOLLOWING PROGRAMS

Agriculture, Food and Natural Resources

Architecture and Construction

Arts, Audio-Video Technology and Communications

Business Management and Administration

Education and Training

Finance

Government and Public Administration

Health Science

Hospitality and Tourism

Human Services

Information Technology

Law, Public Safety, Corrections and Security

Manufacturing

Marketing

Science, Technology, Engineering and Mathematics

Transportation, Distribution and Logistics

WORK-BASED LEARNING

REQUIREMENTS FOR WBL

- Students who are enrolled in college or career pathway course work can apply for the Work-Based Learning Program.
- Students must be in grades 11 or 12
- Students must be at least 16 years old
- Students must have good attendance, discipline, and teacher recommendations
- Students must have a 2.0 GPA or higher
- The structured work experience must be a job or unpaid internship matching the career goal and course work of the pathway.

EMPLOYABILITY SKILL DEVELOPMENT (ESD)

- Paid entry level work
- Limited to one year
- May or may not be linked to a specific pathway
- Must have completed or be currently enrolled in a college or career pathway course

INTERNSHIP

- Can be paid or unpaid work experience
- Directly related to a student's career pathway
- Can occur in the school or the work place
- Must have earned one credit in a college and career pathway

COOPERATIVE EDUCATION (CO-OP)

- Paid work experience
- Directly related to student's career pathway
- Enrolled in a course that is directly related to job placement

YOUTH APPRENTICESHIP (YAP)

- Paid work in a highly technical, highly skilled position
- Work in chosen career area
- Student must have post-secondary education plans in chosen career area (earning a degree, licensing, or certification depending on career requirement)

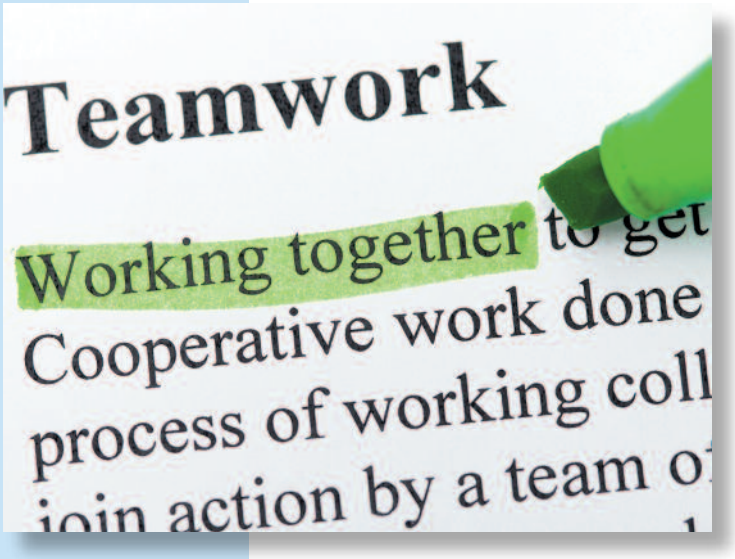
CAREER AND TECHNICAL STUDENT ORGANIZATIONS

- DECA
- FBLA
- FCCLA
- FFA
- FIRST Robotics
- HOSA
- SkillsUSA

VISIT US ON SOCIAL MEDIA

- Instagram **dcsswbl**
- Twitter **@dcsswbl**

CAREER AND TECHNICAL STUDENT ORGANIZATIONS



CTSO CORE VALUES

Career and Technical Student Organizations (CTSO) are designed to build character and develop leadership abilities of high school students. CTSO's promote active community involvement, providing service to others, and participation in competitive events with other high school students across the state. Involvement in CTSO's provide valuable life lessons and educational experiences to prepare students for success in today's society.

VISIT US ON SOCIAL MEDIA

DECA Instagram

- Alexander High School**@ahsdeca_**
- Chapel Hill High School**@chhsdeca**
- Douglas County High School**@dhs.deca**
- Lithia Springs High School**@lhs.deca**

FCCLA Instagram

- Chapel Hill High School**@chhsfccla**

CTSO Twitter

- Chapel Hill High School**@chhdeca**

FCCLA Twitter

- Chapel Hill High School**@chhsfccla**

COMMITMENT
To create among members, educators and business and industry an adherence and appreciation for all Career, Technical, and Agricultural Education Programs

CONVICTION
To develop patriotism through knowledge of our nation's heritage and practice of democracy

EDUCATION
To create enthusiasm and empower students to become lifelong learners

INTEGRITY
To deal honestly and fairly with one another

LEADERSHIP
To develop leadership abilities through participation in educational, professional, community and social activities

PROFESSIONALISM
To promote high standards in career ethics, workmanship, scholarship, and safety

RECOGNITION
Appreciation of the value of achievement

SERVICE
To cultivate a desire to contribute to the benefit and welfare of others

TEAMWORK
To enhance the ability of students to plan together, organize and carry out worthy activities and projects through the use of the democratic process

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

DECA

Distributive Education Clubs of America

DECA prepares emerging leaders and entrepreneurs for careers in marketing, finance, hospitality and management in high schools and colleges around the globe. DECA currently operates in the over 4,000 high schools in many different countries including Mexico, Germany, Puerto Rico, and Canada. DECA is a co-curricular student organization in which students gain leadership and communication skills. DECA members are given opportunities to participate in: community service, competitions, and conferences at the local, state, and national level, post-secondary school exploration, job-shadowing, hosting and participating in events, and real-world industry visits. DECA gives students the chance to work with real business partners and can open the door for future employment opportunities. As an organization, DECA holds an annual Fall Leadership Conference that sharpens the skills and techniques of the attendees. At the annual state conference, students are also allowed to compete in a range of areas including Sports and Entertainment Marketing, Apparel and Accessories, Automotive, Restaurant Management, Accounting and many more. There is over $300,000 of scholarship money from DECA's corporate sponsors available to its members.

www.gadeca.org

www.deca.org

FBLA

Future Business Leaders of America

Georgia FBLA is a nonprofit student organization committed to preparing today's students for success in business leadership. With over 50 years of experience, Georgia FBLA is the premiere organization for student leaders.

Georgia FBLA is an affiliate of Future Business Leaders of America-Phi Beta Lambda, Inc., the largest student business organization in the world with more than 250,000 members. Georgia is also the largest FBLA chapter in the nation with over 20,000 members.

FBLA is an important partner in the success of school-to-work programs, business education curriculums, and student leadership development. FBLA is recognized by the U.S. Department of Education and Labor as an integral part of a co-curricular approach to business and leadership education.

The FBLA mission is to bring business and education together in a positive working relationship through innovative leadership and career development programs. We bring our mission to life through the application of our motto: Service, Education, and Progress.

FCCLA

Family, Career, and Community Leaders of America

FCCLA is a national student organization that helps young men and women become leaders and address important personal, family, work, and social issues through family and consumer sciences education. Through cooperative and competitive programs, FCCLA members develop skills for life including character development, creative and critical thinking, interpersonal communication, practical knowledge, and career preparation. Participation in national programs and co-curricular chapter activities enables FCCLA members to learn cooperation, take responsibility, develop leadership, and give service.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

FFA
An Association of Agricultural Students

FFA represents the relevancy to the core areas offering students opportunities that change lives and prepares students for premier leadership, personal growth, and career success. Founded in 1928, the FFA organization represents a large diversity of over 300 careers in the food, fiber, and natural resources industry. FFA is an integral part of a school system. FFA uses agricultural education to create real-world success. Agriculture teachers become advisors to local FFA chapters, which students join. More than 7,000 FFA chapters are currently in existence; their programs are managed on a local, state, and national level. Each chapter's Program of Activities is designed with the needs of the students in mind. Activities vary greatly from school to school but are based in a well-integrated curriculum. Chapter activities and FFA programs concentrate on three areas of our mission: premier leadership, personal growth, and career success. The FFA motto gives members twelve short words to live by as they experience the opportunities in the organization. Learning to Do, Doing to Learn, Earning to Live, Living to Serve.

FIRST Robotics
For Inspiration and Recognition of Science and Technology

FIRST was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, NH, the 501(c)(3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills. FIRST is More Than Robots. FIRST participation is proven to encourage students to pursue education and careers in STEM-related fields, inspire them to become leaders and innovators, and enhance their 21 st century work-life skills.

HOSA
Future Health Professionals

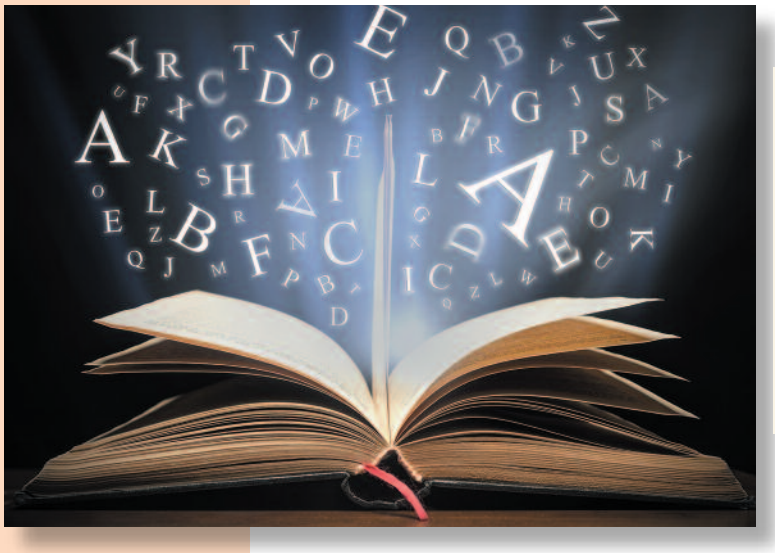
Health Science Technology Education (HSTE) is a national student organization that provides a unique program of leadership development, motivation, and recognition exclusively for secondary, post-secondary, collegiate, and adult students enrolled in health occupations education courses or instructional programs. HOSA is an integral part of approved health occupation programs. Health Science Technology Education (HSTE) students who become active members in a local HOSA chapter are eligible for membership in state and national HOSA.

The mission of HOSA is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill and leadership development of all health occupations education students, therefore helping the students to meet the needs of the health care industry. For more information, go to www.hosa.org or www.georgiahosa.org.

SkillsUSA
Champions at Work

SkillsUSA is a partnership of students, teachers, and industry representatives working together to ensure America has a skilled work force. It helps each student excel. SkillsUSA serves teachers and high school students who are preparing for careers in trade, technical, and skilled service occupation, including health occupations. More than 300,000 students and instructors join SkillsUSA annually, organized into more than 17,000 sections and 54 state and territorial associations. SkillsUSA has served more than 9.9 million members since its founding. SkillsUSA is an applied method of instruction for preparing America's high performance workers enrolled in public career and technical programs. It provides quality educational experiences for students in leadership, teamwork, citizenship, and character development. It builds and reinforces self-confidence, work attitudes, and communications skill. It emphasizes total quality at work: high ethical standard, superior work skill, life-long education, and pride in the dignity of work. SkillsUSA also promotes understanding of the free-enterprise system and involvement in community service.

ENGLISH



SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	● ● ● ● ●
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

AP and Honors courses provide students with more academic rigor, opportunity for enrichment, and opportunity to work toward the AP test in English. Basic requirements for Honors and AP courses include a higher reading level, willingness and ability to accept more academic rigor, self-discipline and motivation, and a desire to prepare for college. Students who wish to take honors and AP English courses should see their current teacher for a recommendation.

9TH GRADE REP - BASIC READING AND WRITING I (READ 180)

Grade 9
Prerequisite EOG Test Scores

Provides fundamental skills development in all areas of English/Language Arts in a language lab setting which includes, drill and practice opportunities in writing, organizing, speaking, reading, and critical thinking.

9TH GRADE LITERATURE AND COMPOSITION

Grade 9
Prerequisite 8th Grade English

Integrates writing, grammar and usage, literature, speaking, listening, and critical thinking skills. Presents the writing process: planning, drafting, revising, editing and proofing; the study of form in personal narratives, descriptions, and expository papers. Includes reading a variety of multicultural literature: short stories, novels, tales, poetry, drama and nonfiction. Emphasizes oral and written response to literature, distinguishing characteristics of various genres, literary elements, and vocabulary study.

HONORS 9TH GRADE LITERATURE AND COMPOSITION

Grade 9
Prerequisite 8th Grade Teacher Recommendation, COG Scores or Parent Waiver

Integrates writing, grammar and usage, literature, speaking, listening, and critical thinking skills. Presents the writing process: planning, drafting, revising, editing and proofing; the study of form in personal narratives, descriptions, and expository papers with emphasis on writing. Includes reading a variety of multicultural literature: short stories, novels, tales, poetry, Shakespearean drama, and nonfiction. Emphasizes oral and written response to literature, distinguishing characteristics of various genres, literary elements, and vocabulary study. Summer reading assignments are mandatory, and outside reading is required throughout the course.

10TH GRADE LITERATURE AND COMPOSITION

Prerequisite 9th Grade Literature and Composition

Includes literary selections from multiple genres to improve reading comprehension and a strong ability to analyze various genres of writing. Stresses organization and development of logical, analytical thinking. Includes grammar, mechanics, usage, research skills, and activities designed to enhance problem solving, critical analysis, and listening abilities. Presents the writing process, with a focus on argumentative writing and research skills.

ENGLISH

HONORS 10TH GRADE LITERATURE AND COMPOSITION

Prerequisite Honors 9th Grade Literature and Composition, Teacher Recommendation or Parent Waiver

Includes literary selections from multiple genres to improve reading comprehension and a strong ability to analyze various genres of writing. Stresses organization and development of logical, analytical thinking. Includes grammar, mechanics, usage, research skills, and activities designed to enhance problem solving, critical analysis, and listening abilities. Summer reading assignments are mandatory, and outside reading is required throughout the course.

AMERICAN LITERATURE AND COMPOSITION

Prerequisite 9th Grade Literature and Composition, 10th Grade Literature and Composition

Offers opportunities to improve reading, writing, speaking, listening, and critical thinking skills through the study of American literature. Includes a variety of literary genres and multicultural writers in a chronological or thematic pattern. Emphasizes developing control in expository writing (thesis support), moving toward precision in personal narrative, descriptive, and persuasive writing. Refines research skills. Integrates grammar, mechanics, and usage into the writing process.

HONORS AMERICAN LITERATURE AND COMPOSITION

Prerequisite Honors 9th and 10th Grade Literature, Teacher Recommendation or Parent Waiver

Offers opportunities to improve reading, writing, speaking, listening, and critical thinking skills through the study of American literature. Includes a variety of literary genres and multicultural writers in a chronological or thematic pattern. Emphasizes developing control in expository writing (thesis support), moving toward precision in personal narrative, descriptive, and persuasive writing. Refines research skills. Integrates grammar, mechanics, and usage into the writing process. Emphasizes oral and written response to literature, distinguishing characteristics of various genres, literary elements, and vocabulary study. Summer reading assignments are mandatory, and outside reading is required throughout the course.

AP LANGUAGE AND COMPOSITION

Grade 11

Prerequisite Honors 10th Grade Literature, Teacher Recommendation or Parent Waiver

This college-level class is designed to help 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. Through their writing and reading in this course, students should 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. Summer reading assignments are mandatory, and outside reading is required throughout the course.

12TH GRADE BRITISH LITERATURE AND COMPOSITION

Grade 12

Prerequisite 9th Grade Literature and Composition, 10th Grade Literature, and Compositor and American Literature

Offers opportunities to improve reading, writing, speaking, listening, and critical thinking skills through the study of literary selections from British/English writers organized chronologically or thematically. Emphasizes developing control in expository writing (thesis support), moving toward precision in personal narrative, descriptive, and persuasive writing. Refines research skills. Integrates grammar, mechanics, and usage into the writing process.

AP LITERATURE AND COMPOSITION

Grade 12

Prerequisite 11th Grade American Literature, AP Language and Composition, Teacher Recommendation, or Parent Waiver

This course conforms to the College Board recommendations for the AP Literature and Composition Examination. It covers the study and practice of writing and the study of literature. It emphasizes writing critical analysis of literature and includes essays in exposition and argument, poetry, drama, prose fiction, and expository literature.

AP CAPSTONE SEMINAR

Grade 10, 11

A foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate with accuracy and precision in order to craft and communicate evidence-based arguments.

ENGLISH

AP RESEARCH PROJECT
Grade 11, 12

The College Board's Advanced Placement Program is collaborating to offer the AP Capstone Program and Credential, designed to support high school students in developing skills increasingly valued by Colleges. The AP Capstone Research Project is an independent mentored project culminating in a 4,500- to 5,000-word academic paper. It enables students to develop practical skills in research methodology and in managing a sustained piece of academic work. Students are evaluated on their ability to design, plan and manage a research project; collect and analyze information; evaluate and make reasoned judgments; and communicate their findings and conclusions.

YEARBOOK/JOURNALISM
Grade 10, 11, 12
Prerequisite Application, Teacher Recommendation and Approval, Willingness to Learn Desktop Publishing, Satisfactory Grades in All English Courses

Yearbook journalism is an English elective class that produces the school's yearbook. Students must be able to attend events and activities before and after school. Counts for elective English credit.

MULTICULTURAL LITERATURE
Grade 10, 11, 12
Prerequisite 9th Grade Literature and Composition

Multicultural Literature focuses on works by and about people of diverse ethnic backgrounds (African, African-American, Native American, Asian, Hispanic/Latin). It stresses exploring themes of linguistic and cultural diversity and developing critical thinking skills through class discussion and oral and written presentations. Counts for elective English credit. Some colleges may not recognize this course for 12th grade English credit.

FILM STUDY
Grade 11, 12

An introduction to the concepts and techniques of film analysis and criticism. This course is divided into genres and focuses on using film as literature to study various cultures through visual and narrative means and critically analyze the filmmaking process, as well as other forms of visual media. An exploration of theme, tone, and author's purpose are also strongly emphasized. Film Study focuses on the relationship between literature and the efficacy of aesthetic theory as a mode of viewing and interpretation. We will explore these issues in relation to specific works of film and literature.

MYTHOLOGY
Grade 10, 11, 12
Prerequisite 9th Grade Literature and Composition

This course is designed to enrich student knowledge of classical mythology and explore how the myths of ancient civilizations affect literature today. Students study the creation myths from different cultures: Classical Greek and Roman Mythology, British Mythology, Norwegian Mythology, Native American Mythology, Pacific Mythology, Middle Eastern (Arabian) Mythology, African Mythology, and Oriental Mythology. Students learn to compare and contrast myths and discuss common elements in myths, interpret meaning in myths, and examine cultural and historical context in which they were written. Elements of modern myths are examined, and the relation of myth to other literature is a major component of the course. Counts for elective English credit.

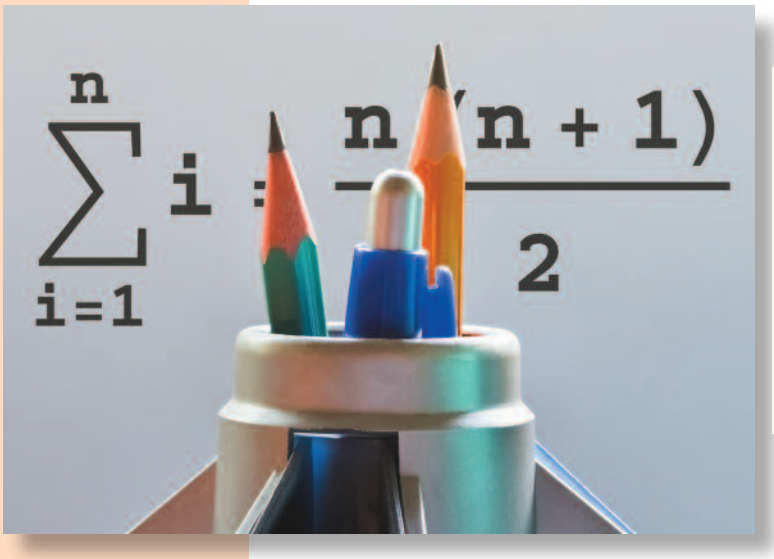
NEWSPAPER JOURNALISM
Grade 10, 11, 12
Prerequisite 9th Grade Literature and Composition

Journalism introduces students to the exciting world of the print and digital media. Law, ethics, and the history of journalism will complement the major units of study: reporting, writing, editing, advertising and design. This course is designed to enable students to learn the art of reporting, writing, and presenting the news. Counts for elective English credit.

ORAL/WRITTEN COMMUNICATION (DEBATE)
Grade 9, 10, 11, 12

This course is designed to develop skills in argumentation, competitive speech, logic, research, providing and taking positions, and filing evidence/research for use in public and personal communication. It further helps students carefully examine a topic for discussion, noting all sides before reaching a conclusion or decision and introduces traditional debate. *This course receive academic elective credit.*

MATHEMATICS



SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	● ● ● ● ●
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

Georgia Mathematics focuses on actively engaging the student in the development of mathematical understanding by working independently and cooperatively to solve problems, estimating and computing efficiently, using appropriate tools, concrete models and a variety of representations, and conducting investigations and recording findings. There is a shift toward applying mathematical concepts and skills in the context of authentic problems and student understanding of concepts rather than merely following a sequence of procedures. In mathematics classrooms, students will learn to think critically in a mathematical way with an understanding that there are many different solution pathways and sometimes more than one right answer in applied mathematics. Mathematics is the economy of information. The central idea of all mathematics is to discover how knowing some things leads, via reasoning, to knowing more—without having to commit the information to memory as a separate fact. It is the reasoned, logical connections that make mathematics manageable. The implementation of the Georgia Standards of Excellence in Mathematics places the expected emphasis on sense-making, problem solving, reasoning, modeling, representation, connections, and communication.

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GSE FOUNDATIONS OF ALGEBRA

Foundations of Algebra is a first year high school mathematics course option for students who have completed mathematics in grades 6 – 8 yet will need substantial support to bolster success in high school mathematics. The course is aimed at students who have reported low standardized test performance in prior grades and/or have demonstrated significant difficulties in previous mathematics classes.

Foundations of Algebra will provide many opportunities to revisit and expand the understanding of foundational algebra concepts, will employ diagnostic means to offer focused interventions, and will incorporate varied instructional strategies to prepare students for required high school mathematics courses. The course will emphasize both algebra and numeracy in a variety of contexts including number sense, proportional reasoning, quantitative reasoning with functions, and solving equations and inequalities.

Instruction and assessment include the appropriate use of manipulatives and technology. Mathematics concepts are represented in multiple ways, such as concrete/pictorial, verbal/written, numeric/data-based, graphical, and symbolic. Concepts are introduced and used, where appropriate, in the context of realistic experiences.

MATHEMATICS

GSE ALGEBRA I

Algebra I is the first course in a sequence of three required high school courses designed to ensure career and college readiness. The course represents a discrete study of algebra with correlated statistics applications.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including pre-calculus, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content.
A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

GSE GEOMETRY

Geometry is the second course in a sequence of three required high school courses designed to ensure career and college readiness. The course represents a discrete study of geometry with correlated statistics applications.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including pre-calculus, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content. A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

GSE ALGEBRA II

Algebra II is the culminating course in a sequence of three high school courses designed to ensure career and college readiness. It is designed to prepare students for fourth course options relevant to their career pursuits.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including pre-calculus, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content. A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

GSE PRE-CALCULUS

Pre-Calculus is a fourth mathematics course designed to prepare students for calculus and other college level mathematics courses.

High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content. A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

GSE ACCELERATED ALGEBRA I/GEOMETRY A

Accelerated Algebra I/Geometry A is the first in a sequence of mathematics courses designed to ensure that students are prepared to take higher–level mathematics courses during their high school career, including Advanced Placement Calculus AB, and Advanced Placement Statistics.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content. A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

MATHEMATICS

GSE ACCELERATED GEOMETRY B/ALGEBRA II

Accelerated Geometry B/Algebra II is the second in a sequence of mathematics courses designed to ensure that students are prepared to take higher–level mathematics courses during their high school career, including Advanced Placement Calculus AB, and Advanced Placement Statistics.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content. A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

GSE ACCELERATED PRE-CALCULUS

Accelerated Pre-Calculus is the third in a sequence of mathematics courses designed to ensure that students are prepared to take higher–level mathematics courses during their high school career, including Advanced Placement Calculus AB, and Advanced Placement Statistics.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content. A student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

AP CALCULUS

Grade 12
Prerequisite Accelerated Pre-Calculus or Pre-Calculus or Parent Waiver

This course follows the College Board syllabus for the AP Calculus AB Examination.The content iIncludes properties of functions and graphs, limits and continuity, differential calculus, and integral calculus.

AP STATISTICS

Grade 12
Prerequisite Accelerated Pre-Calculus or Pre-Calculus or Teacher Recommendation

This course conforms to the College Board recommendation for the AP Statistics.The course enables students to apply statistical methods in problem solving using data collected through experimentation, computer simulations, and various sources; provides opportunities to model statistical methods, derive probabilities, and make inferences; presents applications of statistics in real-life situations; and shows how misleading statistics could be better presented.

COLLEGE READINESS MATHEMATICS

This is a fourth course option for students who have completed Algebra I or Coordinate Algebra, Geometry or Analytic Geometry, and Algebra II or Advanced Algebra, but are still struggling with high school mathematics standards essential for success in first year post-secondary mathematics courses required for non-STEM majors.The course is designed to serve as a bridge for high school students who will enroll in non-STEM post-secondary study and will serve to meet the high school fourth course graduation requirement.

The course will revisit and expand the understanding of content standards introduced in earlier mathematics courses and will emphasize numeracy, algebra and functions, geometry, and statistics in a variety of contexts. Instruction and assessment should include the appropriate use of manipulative and technology. Mathematics concepts are be represented in multiple ways, such as concrete/pictorial, verbal/written, numeric/data-based, graphical, and symbolic. Concepts are introduced and used, where appropriate, in the context of realistic experiences.The Standards for Mathematical Practice will provide the foundation for instruction and assessment.

SCIENCE

SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

BIOLOGY I

Grade 9
Prerequisite None

This is an introductory course in biology and is the study of the chemical and physical properties of life. During the course students will actively delve into all aspects of the living world including, but not limited to, the cell, biological diversity and change, genetics, ecology, and biochemistry.

HONORS BIOLOGY I

Grade 9
Prerequisite Honors Program, Parent Waiver

Honors Biology involves in-depth study of the development of living organisms from cellular to organism levels and emphasizes relationships between the living and non-living realms of various ecosystems throughout the world. These same concepts are addressed in any college preparatory biology course, but Honors Biology is differentiated for accelerated learners through the rate and depth of coverage and the focus of the instructional modes. Emphasis is placed upon learner-centered investigations involving problem-solving, real-world application, and critical thinking about issues of significance on personal, community, state, national, and global levels.

PHYSICAL SCIENCE

Grade 10
Prerequisite Biology

Students in this course will learn basic concepts about matter and energy. They will use appropriate scientific processes and investigative techniques to explore both matter and energy and the laws governing relationships of these in the universe.

HONORS PHYSICAL SCIENCE

Grade 10
Prerequisite Honors Program, Parent Waiver

This course includes matter and energy concepts with emphasis on higher-order thinking skills. While many of the objectives for this course are similar to Physical Science, these objectives are differentiated to allow for more interdisciplinary topics and greater amounts of independent study and research.

SCIENCE

CHEMISTRY I

Grade 11
Prerequisite Physical Science, Biology, Algebra I

This course provides the student with understanding of basic chemical knowledge regarding areas such as atomic structure, bonding, nomenclature, chemical reactions, pH, and solutions. All topics will be addressed in terms of practical applications based on common uses in the home and workplace.

HONORS CHEMISTRY I

Grade 10, 11, 12
Prerequisite Honors Program, Physical Science, Biology, Algebra I, Parent Waiver

The student will learn facts, formulas, and principles necessary to the essential understanding of the field of chemistry. The student will learn the fundamental concepts underlying the nature of chemistry and its role in society. Although this course covers many of the same topics as Chemistry I, students are provided numerous opportunities to develop critical thinking and problem solving skills to use not only in chemistry, but also in everyday life. This course is designed to be an Honors Chemistry course giving students the skills necessary to succeed at this level of work.

AP CHEMISTRY I

Grade 10, 11
Prerequisite Physical Science, Biology, Chemistry, Algebra I, Teacher Approval, Parent Waiver

This course is a college level study of the nature of matter and will include chemical nomenclature, stoichiometry, bonding, molecular geometry, chemical kinetics, equilibrium, and reaction rates. Special emphasis will be placed upon chemical thermodynamics and electrochemistry. Good for students perusing degrees in Pharmacy.

HUMAN ANATOMY/PHYSIOLOGY

Grade 12
Prerequisite Physical Science, Biology, and Chemistry

Human Anatomy and Physiology is a rigorous college preparatory, life science course that requires more time in self-study and requires a higher level of discipline. It is a continuation and extension of the life science investigations of previous grades and can serve as the third or fourth year of science that is required for graduation. this cours is designed to provide students the opportunity to develop academic practices, learn process skills, higher order thinking skills, and acquire content knowledge necessary to be literate and proficient in Human Biology. The content will be investigated through numberous laboratory and field experiences, various individual and group projects and activities, and traditional educational practices.

ENVIRONMENTAL SCIENCE

Grade 10, 11, 12
Prerequisite Biology, Physical Science

The Environmental Science curriculum is designed to extend student investigations that began in grades K-8. This curriculum is extensively performance, lab and field based. It integrates the study of many components of our environment, including the human impact on our planet. Instruction should focus on student data collection and analysis. Some concepts are global; in those cases, interpretation of global data sets from scientific sources is strongly recommended. It would be appropriate to utilize resources on the Internet for global data sets and interactive models. Whenever possible, careers related to environmental science should be emphasized.

EARTH SYSTEMS

Grade 11, 12
Prerequisite Biology, Chemistry, Physical Science

This course is designed to continue student investigations, curricula and investigate the connections among Earth's systems through Earth history. These systems – the atmosphere, hydrosphere, geosphere, and biosphere – interact through time to produce the Earth's landscapes, ecology, and resources. This course develops the explanations of phenomena fundamental to the sciences of geology and physical geography, including the early history of the Earth, plate tectonics, landform evolution, the Earth's geologic record, weather and climate, and the history of life on Earth. Instruction should focus on inquiry and development of scientific explanations, rather than mere descriptions of phenomena. Case studies, laboratory exercises, maps, and data analysis are integrated into units.

PHYSICS

Grade 11, 12
Prerequisite Physical Science, Passed or Taking Math 3

Physics is the study of the interactions of matter and energy. It includes concepts such as velocity, acceleration, force, momentum and charge. Students investigate physics concepts through experience in laboratories and field work using the processes of inquiry.

AP PHYSICS I

Prerequisite or Co-Prerequisite Pre-Calculus

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry based investigations that provide students with opportunities to apply the science practice. Students should have completed geometry and be concurrently taking Algebra II or an equivalent course. Although the Physics I course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics I course itself. No prior course work in physics is necessary.

SCIENCE

AP PHYSICS C: MECHANICS

AP Physics C: Mechanics is equivalent to a one-semester, calculus based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton's Laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course. Students should have taken or be concurrently taking calculus.

AP BIOLOGY I

Grade 11, 12
Prerequisite Honors Program, Biology, Chemistry, Parent Waiver, Teacher Recommendation

AP Biology aims to help students gain a conceptual framework for modern biology and an appreciation of science as a process. The three main areas of focus are: molecules and cells, heredity and evolution, organisms and populations. Primary focus will be on developing an understanding of concepts rather than on memorizing terms and technical details.

AP ENVIRONMENTAL SCIENCE

Grade 11, 12
Prerequisite Honors Program, Biology, Physical Science, Parent Waiver, Teacher Recommendation

The goal of the AP Environmental Science course 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 or preventing them. Topics include: energy, resources, human impact, natural processes and relationships in the environment and sustainability issues.

AP COMPUTER SCIENCE PRINCIPLES

Grade 10, 11, 12

The AP Computer Science course emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development. This course is meant to be the equivalent of a first-semester college-level course in computer science. It also includes the study of data structures, design, and abstraction. Emphasis in the course is on procedural and data abstraction, object-oriented programming and design methodology, algorithms, and data structures.

AP COMPUTER SCIENCE A

The AP Computer Science A course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design. AP Computer Science A focuses on the Java programming language. Students are encouraged to take AP Computer Science Principles prior to taking AP Computer Science A.

FORENSIC SCIENCE

Grade 11, 12
Prerequisite Biology, Chemistry or Physical Science

Forensic Science is the application of scientific evidence for use in a court of law. In this introductory course, students rely on a thorough understanding of the principles and techniques of science to solve problems. As a consequence, students expand their science skills and knowledge base. The course work requires students to carry out experiments, solve problems using analytical and critical-thinking skills, and communicate their findings to others.

ASTRONOMY

Grade 11, 12
Prerequisite Physical Science

This course will provide the student with an introduction to the concepts of modern astronomy, the origin and history of the Universe and the formation of the Earth and the solar system. Students will compare the Earth's properties with those of the other planets and explore how the heavens have influenced human thought and action. The course gives a description of astronomical phenomena using the laws of physics. The course treats many standard topics including planets, stars, the Milky Way and other galaxies, black holes to more esoteric questions concerning the origin of the universe and its evolution and fate. Although largely descriptive, the course will occasionally require the use of sophomore-high level mathematics. Laboratory exercises include experiments in light properties, measurement of radiation from celestial sources, and observations at local observatories and/or planetariums.

ZOOLOGY

Grade 11, 12
Prerequisite Biology, Physical Science

Zoology is the study of all things dealing with animals. As the science has advanced over the decades, modern zoologists study more than just recognition and classification of animals; their attention now includes animal anatomy, physiology, development, histology, ecology, behavior, and evolution. The 'story' of animals is told through evolutionary patterns across deep spans of time. Thus, the focus of this course is the recognition of key features of the major body plans that have evolved in animals and how those body plans have changed over time resulting in the diversity of animals that are evident today.

SOCIAL STUDIES

SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

CIVICS/CITIZENSHIP OR AMERICAN GOVERNMENT

Grade 9
Prerequisite None

Focuses on basic concepts and principles of the American political system. Covers the structure and function of the American system of government, the roles and responsibilities of citizen participation in the political process, and the relationship of the individual to the law and legal system. Stresses critical analysis of public issues. Integrates and reinforces social studies skills.

AP AMERICAN GOVERNMENT OR HONORS GOVERNMENT

Grade 9, 10, 11, 12 (AHS 11 &12 grades only)
Prerequisite Teacher Approval, Honors Program, Parent Waiver

AP U.S. Government and Politics will provide students an intellectual foundation for observing, analyzing, and understanding national politics in the United States. Using primary and secondary source documents, as well as analysis of specific examples, students will examine and evaluate the institutions of American government, political parties and elections, mass media, political behavior, public policies, and the development of individual rights and liberties and their impact on citizens.

WORLD HISTORY

Grade 10
Prerequisite None

Emphasizes the political, cultural, economic, and social development and growth of civilizations. Covers the development of change beginning with ancient civilizations, the emergence of nations through trade/communications, intellectual development, scientific/technological development, emergence of nation states, nations in conflict and the emerging interdependence of nations in the twentieth century.

AP OR HONORS WORLD HISTORY

Grade 10
Prerequisite Teacher Approval, Honors Program, Parent Waiver

AP World History is a college level course that covers world history through reoccurring themes. Students will cover the interactions between humans and the environment, the development of interaction between cultures, state-building and expansion, the creation and interaction of economic systems, and the development and transformation of social structures. This class is designed to develop the critical thinking skills, the historical thinking skills, and the analytical skills needed for success in the 21st century.

SOCIAL STUDIES

UNITED STATES HISTORY
Grade 11
Prerequisite None

Investigates the United States, its people, institutions, and heritage. Emphasizes political, cultural, and social issues, the role of the United States as a world leader, and the issues confronting the United States today. Students will also use critical thinking to link past and present events.

HONORS UNITED STATES HISTORY
Grade 11
Prerequisite Teacher Recommendation

This course traces the development of U.S. History from the colonial era through modern times. Emphasis is placed on the role of the United States as a world leader and issues relevant to the United States today. Students are equipped with the analytic skills and factual knowledge essential to critically examine the conflicts and developments in U.S. history. The course facilitates the development of historical background through analysis of historical documents and secondary source materials. Students learn to assess historical materials in terms of reliability and importance to evaluate scholarly data and interpretations presented within historical scholarship.

AP UNITED STATES HISTORY
Grade 11
Prerequisite Teacher Approval, Honors Program, Parent Waiver

Conforms to College Board topics for the AP United States History Examination. Covers discovery and settlement, colonial society, the American Revolution, Constitution and the New Republic, Age of Jefferson, Nationalism, Sectionalism, Territorial Expansion, Civil War, Reconstruction, Industrialization, Progressive Era, World War I, Depression, New Deal, World War II, The Cold War, through modern times. Students examine primary documents and acquire the ability to incorporate source material in a thesis driven, analytical, 5-paragraph essay.

ECONOMICS-BUSINESS FREE ENTERPRISE
Grade 12
Prerequisite None

Focuses on the American economic system; covers fundamental economic concepts, personal finance, microeconomics, macroeconomics, and international economic interdependence. Stresses the ability to analyze critically and to make decisions concerning public issues.

AP MACROECONOMICS
Grade 12
Prerequisite Teacher Approval, Honors Program, Parent Waiver

Focuses on the American economic system; covers fundamental economic concepts, comparative economic systems, micro-economics, macroeconomics, and international economic interdependence. Stresses the ability to analyze critically and to make decisions concerning public issues. The honors course has emphasis on writing assignments.

AP MICROECONOMICS
Grade 11, 12 (AHS, CHHS and NMHS 12th grade only)
Prerequisite Teacher Approval, Honors Program, Parent Waiver

This course is designed to provide students with a thorough understanding of the principles of economics as they apply to individual decision-making units, including individual households and firms. Students taking the course will spend time examining the theory of consumer behavior, the theory of the firm, and the behavior of profit-maximizing firms under various market structures. They will evaluate the efficiency of the outcomes with respect to price, output, consumer surplus, and producer surplus. Students will have an opportunity to examine the behaviors of households and businesses in factor markets, and learn how the determination of factor prices, wages, interest, and rent influence the distribution of income in a market economy. Students will also consider instances in which private markets may fail to allocate resources efficiently and examine various public policy alternatives aimed at improving the efficiency of private markets.

CURRENT ISSUES
Grade 10, 11, 12
Prerequisite None

Analyzes current issues and influences that are related to these issues and examines how decisions are made concerning those issues. Integrates and reinforces social studies skills.

PSYCHOLOGY
Grade 11, 12
Prerequisite None

This year-long, one credit elective course investigates the relationship of psychology, the scientific study of behavior and mental processes, to other sciences. The main topics of study are the basic principles of psychology, contributions of major psychologists, the scientific method, uniqueness, experimental ethics, developmental psychology, heredity and environmental aspects of psychology, learning theory, memory and thinking types, biological bases of behavior, personality, intelligence, social disorders, awareness, emotion, motivation, conflict resolution, and research methods used in the study of psychology.

SOCIAL STUDIES

AP PSYCHOLOGY
Grade 11, 12
Prerequisite Teacher Approval, Honors Program, Parent Waiver

This year-long, one credit elective course conforms to the College Board topics for the Advanced Placement Psychology examination. This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students will be exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Course topics include the following: Psychological History and Approaches; Research Methods; Biological Bases of Behavior; Sensation and Perception; States of Consciousness; Learning; Cognition; Motivation and Emotion; Developmental Psychology; Testing and Individual Differences; Abnormal Psychology; Treatment of Psychological Disorders; and Social Psychology. The expectations and class rigor are equivalent to a college freshman Psychology class.

AP EUROPEAN HISTORY
Grade 11, 12
Prerequisite Teacher Approval, Honors Program, Parent Waiver

Conforms to College Board topics for the AP European History Examination. Covers intellectual and cultural history, political and diplomatic history, and social and economic history. Students examine primary documents and acquire the ability to incorporate source material in a thesis driven, analytical, 5-paragraph essay.

SOCIOLOGY
Grade 11, 12
Prerequisite None

This course will introduce students to the sociological perspective in examining our lives and social experiences, as well as many issues facing society today. In this respect, students should think of this course as a "sampler" on the sociological menu. Furthermore, through this course, students should come to realize how many aspects of their lives are influenced by the social world in which they live and, as a result, a student should obtain a better understanding of her/himself as social individuals and her/his place in society.

AP HUMAN GEOGRAPHY
Grade 9-12
Prerequisite Teacher Approval, Honors Program, Parent Waiver

The purpose of the AP Human Geography course 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.

AP CAPSTONE SEMINAR
Grade 10, 11
Prerequisite Teacher Approval, Honors Program, Parent Waiver

The College Board's Advanced Placement Program and Alexander High School are collaborating to offer the AP Capstone Program and Credential, designed to support high school students in developing increasingly valued skills by colleges. The seminar course is composed of Interdisciplinary Investigations and Critical Reasoning Seminar and focuses on developing inquiry skills - through writing, researching and team projects - by exploring specific topics of global relevance. Topics are selected by individual schools and are drawn from a list that includes such subjects as: alternatives to oil, endangered cultures, global climate change, integration and multiculturalism, medical ethics and priorities. Students in the seminar course are assessed through a written exam, a presentation and a team project.

US HISTORY IN FILM
Grade 11, 12
Prerequisite None

This course will treat Hollywood feature films as historical evidence. Students will view films that cover various topics in US history (American Revolution, Great Depression, World Wars, Civil Rights Movement, Vietnam, The War on Terror, and others), and then with outside readings, lectures, and class discussions, they will assess the validity of the films as historical sources. A goal of this course is to help students improve their research (validity of sources, author's/filmmaker's point-of-view, etc.) and writing skills through research projects and critical essays.

WORLD LANGUAGE

SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

Please Note: While the Georgia Department of Education no longer requires students to complete two years of a world language for high school graduation, the University System of Georgia does require the completion of two years of the same world language or two years of sign language in order to be considered for admission. Universities may or may not accept World Language credit that appears on a high school transcript but was earned in Middle School.

PREPARING OUR STUDENTS FOR TOMORROW'S WORKPLACE

Second language skills are needed by students for the new global economy for the following reasons:

- Students interested in attending a 4 year college/university must have at least 2 years in a consecutive language.
- The workplace of tomorrow is a world of many cultures and languages. With new forms of global commerce we can't even imagine today.
- 200,000 Americans annually lose out to jobs with business because they cannot communicate in another language.
- Monolingual speakers can be at a disadvantage in employment and political life.
- Managers who know how to deal with a diverse workforce will have an edge.
- 4 of 5 new jobs in the US are created as a result of foreign trade.
- 1/3 of all corporations in the US are either owned or based abroad.
- Georgia ranks 15th in the US in export sales.
- Students earning 3 or more high school credits in the same language meet the requirements for a World Language Pathway.

WORLD LANGUAGE

FRENCH I

Grade 9, 10, 11, 12
Prerequisite None

This course allows students to begin to develop communication skills on a variety of common topics, such as friends, family, school, and leisure activities. Classwork and homework introduce listening, speaking, reading, and writing functions in the target language, as well as the cultures of regions where French is spoken. The course is designed for students who did not take the two-year French sequence in middle school.

FRENCH II

Grade 9, 10, 11, 12
Prerequisite French I

This course builds on and expands the skills students acquired in French I class. Students communicate in more detail about a broader range of topics and can ask about, narrate and discuss past, present, and future events and plans. Students who have passed the two-year middle school French sequence or one unit of French I at the high school level should enroll in this class.

FRENCH III

Grade 9, 10, 11, 12
Prerequisite French II or Native Speakers

This course allows students to extend the skills and content taught at the French II level in order to participate in more complicated situations, to communicate in extended conversations, to respond to authentic print, audio, and visual media in the target language, to react to current events and cultural patterns in the francophone world, and to develop organized composition and reporting skills in French.

FRENCH IV

Grade 11, 12
Prerequisite French III

As a continuation of French III, this course develops students' proficiency in using oral and written language to inquire, narrate, and describe in a variety of tenses and situations. Students summarize and respond to authentic materials and media in the target language.

FRENCH V

Grade 12
Prerequisite French IV

This course is a continuation of French IV in which students continue to develop their proficiency in oral and written expression in French. Students read and discuss appropriate literary selections and use oral and written skills to respond to the visual art, music, and drama of the target cultures. Students use extended vocabulary to react to current events and issues present in the target cultures.

AP FRENCH

Grade 11, 12
Prerequisite French IV

Students who enroll in Honors/AP French Language should already have a good command of French grammar and vocabulary and have competence in listening, reading, speaking, and writing. The course will emphasize the students' ability to understand spoken French in various contexts and develop a vocabulary ample for reading a variety of writings, and their ability to express themselves with reasonable fluency and accuracy in both written and spoken French.

WORLD LANGUAGE

SPANISH I

Grade 9, 10, 11, 12
Prerequisite None

This course allows students to begin to develop communication skills on a variety of common topics, such as friends, family, school, and leisure activities. Classwork and homework introduce listening, speaking, reading, and writing functions in the target language, as well as the cultures of regions where Spanish is spoken. The course is designed for students who did not take the two-year Spanish sequence in middle school.

SPANISH II

Grade 9, 10, 11, 12
Prerequisite Spanish I

This course builds on and expands the skills students acquired in Spanish I class. Students learn to communicate in more detail about a broader range of topics and can ask about, narrate and discuss past, present, and future events and plans. Students who have passed the two-year middle school Spanish sequence or one unit of Spanish I at the high school level should enroll in this class.

SPANISH III

Grade 10, 11, 12
Prerequisite Spanish II or Native Speakers

This course allows students to extend the skills and content taught at the Spanish II level to participate in more complicated situations, to participate in extended conversations, to respond to authentic print, audio, and visual media in the target language, to react to current events and cultural patterns, and to develop organized composition and reporting skills in Spanish.

SPANISH IV

Grade 11, 12
Prerequisite Spanish III

As a continuation of Spanish III, this course develops students' proficiency in using oral and written language to inquire, narrate, and describe in a variety of tenses and situations. Students summarize and respond to authentic materials and media in the target language. Students read and discuss appropriate literary selections and use oral and written skills to respond to the visual art, music, and drama of the target cultures.

SPANISH V

Grade 12
Prerequisite Spanish IV

This course is a continuation of Spanish IV in which students continue to develop their proficiency in oral and written expression in Spanish. Students read and discuss appropriate literary selections and use oral and written skills to respond to the visual art, music, and drama of the target cultures. They use extended vocabulary to react to current events and issues present in the target cultures.

AP SPANISH

Grade 11, 12
Prerequisite Spanish IV

Students who enroll in Honors/AP Spanish Language should already have a good command of Spanish grammar and vocabulary and have competence in listening, reading, speaking, and writing. The course will emphasize the students' ability to understand spoken Spanish in various contexts and develop a vocabulary ample for reading a variety of writings, and their ability to express themselves with reasonable fluency and accuracy in both written and spoken Spanish.

PHYSICAL EDUCATION

SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

GENERAL PHYSICAL EDUCATION I, II, III, IV

Grade 9, 10, 11, 12
Prerequisite None

This elective course is designed to provide students with the opportunity to improve skills in each sport encountered. The emphasis is placed on teaching and improving motor skills unique to each team sport rather than merely playing them. This course will offer the student an opportunity to learn the history, rules, and strategies of specific team sports as well as the opportunity to develop attitudes necessary to play the sport safely and display good sportsmanship. *Team Sports is an elective physical education course.*

WEIGHT TRAINING

Grade 9, 10, 11, 12
Prerequisite None

This course is designed to allow students to participate in a program of activities, which promote the development of health-related fitness. Activities/workouts may include but not be limited to: weight training (free weights and machines), run/walk activities, flexibility exercises, speed training and relation techniques.

BEGINNING WEIGHT TRAINING

Grade 9, 10, 11, 12
Prerequisite Students new to weight training

INTERMEDIATE WEIGHT TRAINING

Grade 10, 11, 12
Prerequisite Beginning Weight Training and non-athletes

ADVANCED WEIGHT TRAINING

Grade 11, 12
Prerequisite Athletes ONLY

This elective course is designed to be a continuation of the course required for graduation, Personal Fitness. Several ideas are revisited but many new concepts are introduced. The course is designed to educate the novice and enhance the performance levels of the athlete by covering principles of movement science. Psychological issues are discussed as they relate to physical performance as well. Developing a pattern of involvement in lifetime activity is the desired goal of this course.

PHYSICAL EDUCATION

FEMALE WEIGHT TRAINING

Grade 9, 10, 11, 12
Prerequisite None

This elective course is designed to introduce students to a rhythmic program of activities to promote the development of health related fitness. The course will provide students with the opportunity to improve cardiovascular fitness, flexibility, muscular strength, muscular endurance and body composition. Fundamental skills will be emphasized in each area, culminating in the performance of simple routines by the students. Instruction in each area will be available as equipment and staff are provided. *Aerobic Dance is an elective physical education course.*

AEROBICS

Grade 9, 10, 11, 12
Prerequisite None

This elective course is a form of physical exercise that combines rhythmic aerobic exercise with stretching and strength training routines with the goal of improving all elements of fitness (flexibility, muscular strength, and cardio-vascular fitness). With the goal of preventing illness and promoting physical fitness, practitioners perform various routines comprising a number of different dance-like exercises.

LIFETIME SPORTS

Grade 9, 10, 11, 12
Prerequisite None

This elective course is designed to provide students with the opportunity to improve skills in each sport taught. The emphasis is placed on teaching and improving motor skills unique to each individual or dual sport rather than merely playing them. This course will offer the student an opportunity to learn dual sports as well as the opportunity to develop attitudes and judgment necessary to play the sport safely and display good sportsmanship. It is the goal of this course to instill the necessary skills and favorable attitudes to foster lifetime participation. *Lifetime Sports is an elective physical education course.*

INTRODUCTORY RECREATIONAL GAMES

Introduces recreational games suitable for lifetime leisure activities; may include table tennis, shuffleboard, Frisbee, deck tennis, new games, horseshoes, darts and croquet. Emphasizes the rules of each game and the skills necessary to play.

HEALTH/PERSONAL FITNESS

HEALTH-This course is designed to give students the opportunity to learn practical skills necessary to implement healthy life choices. The course includes learning activities designed to include students in classroom study, discussions, health labs, Internet activities via health web sites and constantly changing current events. Students are called on to evaluate their current health habits on personal, interpersonal and community levels. A passing grade in this course meets the high school graduation requirements in the area of health and safety. *This course is a Douglas County School System graduation requirement.*

PERSONAL FITNESS-The primary goal of this course is to help students help themselves. This course shows students that everyone can be healthy and physically fit. It encourages the development and maintenance of personal fitness throughout the life cycle. It is a "personal" course. Students are presented a wide variety of fitness topics. They learn to assess their own personal fitness levels and based on that knowledge, learn to design their own personal fitness programs. Consumer issues related to health and fitness are discussed along with principles of training, nutrition and stress management. This unit course meets the state requirement for Physical Education. *This course is a Douglas County School System graduation requirement.*

PRINCIPLES OF ATHLETIC TRAINING/SPORTS PROFESSIONALS

Grade 10, 11, 12
Prerequisite None

This elective course is designed to meet the needs of students who are interested in pursuing a career in physical therapy, sports medicine, physical education or some other related field. Students will gain practical experience in the care and prevention of athletic injuries as well as information on how to provide rehabilitation after an injury has occurred. The daily routines of professionals in the field will be studied as well as the college course requirements necessary to pursue the particular field. Basic CPR and First Aid will be included in this course in order to re-certify students on a regular basis. *Athletic Training / Sports Medicine is an elective physical education course.*

FINE ARTS

SCHOOL KEY SYSTEM

- Alexander High School
- Chapel Hill High School
- Douglas County High School
- Lithia Springs High School
- New Manchester High School
- College & Career Institute

Schools offering class	
Class name	**AP LANGUAGE COMPOSITION**
When class can be taken	**Grade** 9, 10, 11
Class requirements	**Prerequisite** Test Scores
Class description	Provides fundamental skills development in all areas of English/Language Arts.

New Manchester High School Fine Arts Magnet Education Programs (FAME) are listed separately beginning on page 88. FAME was founded in 2012 for students with exceptional talent in the arts. Its goal is to develop and nurture talented young artists for successful careers or avocations in the fine arts through extensive training programs and classes in instrumental music, vocal music, drama, dance, visual art, and technical theatre, while maintaining high academic achievement.

BEGINNING BAND LEVELS I, II, III, IV

Grade 9, 10
Prerequisite Band in grades 6-8 or audition with Director

This course provides opportunities to develop performance skills on a wind or percussion instrument (preferably wind). It emphasizes performance and production; may include analysis, historical and cultural influences, improvisation and appreciation of music.

INTERMEDIATE BAND LEVELS I, II, III, IV

Grade 10, 11, 12
Prerequisite Beginning Band or audition with Director

This course provides opportunities for intermediate- level performers to increase, refine and develop performance and precision skills on a wind or percussion instrument (preferably wind). It emphasizes performance and production; may include analysis, historical and cultural influences, improvisation and appreciation of music at intermediate levels of understanding.

ADVANCED BAND I, II, III, IV

Grade 10, 11, 12
Prerequisite Band

This course provides opportunities for advanced-level performers to increase, refine and develop performance and precision skills on a wind or percussion instrument (preferably wind). It emphasizes performance and production; may include analysis, historical and cultural influences, improvisation and appreciation of music at advanced levels of understanding.

INTERMEDIATE INSTRUMENTAL ENSEMBLE

Grade 9, 10, 11, 12
Prerequisite Band Member with Percussion Experience

This class is for any band member who has prior experience playing percussion instruments in middle school or high school. It would teach the foundations of all instruments in the percussion section and each student would be expected to be able to play mallet instruments, snare rudiments, as well as many other fundamental skills on the various instruments. The students will be playing music for marching band, concert band, and percussion ensemble. Grades are largely based on class participation and playing tests on all percussion instruments.

FINE ARTS

JAZZ BAND
Grade 9, 10, 11, 12
Prerequisite Director's Approval

This class provides a well-rounded learning experience for all participating students. Student will perform many pieces from the standard jazz repertoire, learning and practicing the many facets of jazz improvisation, studying jazz historically and culturally, becoming familiar with key figures in the evolution of jazz, and listening to key recordings of those artists.

SYMPHONIC BAND
Grade 9, 10, 11, 12
Prerequisite Director's Approval

This class has a tradition of excellence, providing a thorough education in group performance, individual instruction, and music theory. Both Symphonic and Concert Bands perform at all concerts and festivals, giving all students the opportunity to showcase their talents. Enrollment involves participation in marching band, concert band, pep band, ensembles and solo playing. Band members are auditioned and placed into either Symphonic or Concert Band. All students receive private instruction on their instrument and sequential instruction in the elements of music. Students will study both solo and ensemble settings, music theory, music history, reading, and writing music.

GUITAR I, II, III, IV
Grade 9, 10, 11, 12
Prerequisite None

This is an elective course offering beginning instruction for the guitar. You will learn open chords, moveable chords, accompaniment techniques and a variety of playing techniques and styles including both the pickstyle and fingerstyle approaches to the guitar. This is not a lead guitar technique class. The course also includes music fundamentals, theory, songs, performance, listening, analyzing and learning how to read standard music notation and tablature. Students are REQUIRED to provide their own acoustic guitar and have it in class daily. No amplifiers are allowed. Grades are based on performance skill and written tests. Daily participation is also an integral part of the final grade.

MUSIC THEORY/HISTORY
Grade 9, 10, 11, 12
Prerequisite Band or Chorus (AHS, LSHS)

This is a class designed to teach the basics of music theory helping students learn notation, composition, how to analyze music, and many other things which would help a student both in high school and college. It would also touch on music history, helping the students learn about the different time periods in music from Ancient to Modern. The students would learn stylistic differences common to each period and tie it in to analyzing music and writing for those time periods. It uses a variety of teaching methods including multimedia lecture, listening exercises, computer program training, independent work on writing music, etc. Grading is based on class work, quizzes, and daily participation.

BEGINNING CHORUS
Grade 9, 10, 11, 12
Prerequisite None

Beginning Chorus is offered to students who would like to sing for enjoyment while developing their musical knowledge and vocal skills. Emphasis is placed on increasing music reading skills diction, intonation, and vocal technique. Students are REQUIRED to purchase a chorus uniform. Some uniforms are available for rental. Grades are largely based on daily class participation, basic skills tests, class work, and performance participation. Extra credit is available. Attention is given to all the areas that are essential to membership in a music performance.

INTERMEDIATE CHORUS
Grade 9, 10, 11, 12
Prerequisite None

This is a performance based class. It provides opportunities for intermediate-level performers to increase, develop, and refine performance skills and precision vocally. Students are required to attend after school events such as concerts and other performances. Emphasis is placed on increasing music reading skills diction, intonation, and vocal technique. Students are REQUIRED to purchase a chorus uniform. Some uniforms are available for rental. Grades are largely based on daily class participation, basic skills tests, class work, and performance participation. Extra credit is available. Attention is given to all the areas that are essential to membership in a music performance.

FINE ARTS

ADVANCED CHORUS
Grade 9, 10, 11, 12
Prerequisite Director's Approval

This is an advanced level performance based class. It provides opportunities for advanced-level performers to increase, develop, and refine performance skills and precision vocally. Students are required to attend after school events such as concerts and other performances. Emphasis is placed on increasing music reading skills diction, intonation, and vocal technique. Students are REQUIRED to purchase a chorus uniform. Some uniforms are available for rental. Grades are largely based on daily class participation, basic skills tests, class work, and performance participation. Extra credit is available. Attention is given to all the areas that are essential to membership in a music performance.

AP MUSIC THEORY
Grade 11, 12
Prerequisite Band or Chorus

This course is designed to develop musical skills that will lead to a thorough understanding of music composition and music theory. Students are prepared to take the AP Music Theory Exam when they have completed the course. Students planning to major in music in college may be able to enroll in an advanced music theory course, depending on individual colleges' AP policies.

THEATRE ARTS I (FUNDAMENTALS OF DRAMA)
Grade 9, 10, 11, 12
Prerequisite None

Theatre Arts I is an introductory level class. This course serves as a prerequisite to other theatre courses. Theatre Arts I includes the study and application of stage movement, theatre history, basic technical theatre, and acting. In this class the student will learn the importance of working as an ensemble. Grades are based on class work, quizzes, daily participation, group projects, and class performance.

THEATRE ARTS II (ACTING)
Grade 9, 10, 11, 12
Prerequisite Theatre Arts I

Theatre Arts II is an intermediate level class addressing the fundamentals needed for stage acting. In this class the student will: learn from a variety of acting techniques, learn how to take a headshot and make a resume, learn to work as an ensemble with other actors, and acquire a deeper knowledge of theatre as a working art form. Grades are based on class work, quizzes, daily participation, individual performances, and group performances. *This is a performance based class.*

THEATRE ARTS III (PLAY PRODUCTION)
Grade 10, 11, 12
Prerequisite Theatre Arts II or Technical Theatre

Theatre Arts III is an advanced level class. Theatre is doing! In this course the student will use all of the skills learned in the prerequisite theatre classes to produce a play. The class will require students to not only perform, but assume technical responsibilities as well. Grades will be based upon classwork, quizzes, daily participation, individual performances, group performances, theatre practicum, and the rehearsal/ performance process. *The students who are in this class will be required to audition to participate in the class production.*

ADVANCED PERFORMANCE IN THEATRE
Grade 10, 11, 12
Prerequisite Audition only

This course is designed to be an advanced course in Theater Arts. It includes in depth study of characterization, voice, physicality, scene study, and theater production through performance. Group and individual work will be used to develop acting skills. This is a performance-based course. *The students who are in this class will be required to audition to participate in the class production.*

TECHNICAL THEATRE
Grade 9, 10, 11, 12
Prerequisite Teacher's Approval

Technical Theatre is an intermediate level class. In this course the student will learn/ apply the basic fundamentals of costume construction, makeup, scene construction, lighting, sound, and the elements of design that follow these principles. Technical Theatre is a hands on course that will require students to dress out in the appropriate work clothes depending on the project. Grades are based on daily work, quizzes, daily participation, individual projects, group projects, and theatre practicum.

VISUAL ARTS/COMPREHENSIVE (VACI)
VISUAL ARTS/COMP I
Grade 9, 10, 11, 12
Prerequisite None

Introduces art history, art criticism, aesthetic judgment and studio production. Emphasizes the ability to understand and use elements and principles of art through a variety of media, processes and visual recourses. Explores masters' artworks for historical and cultural significance.

FINE ARTS

VISUAL ARTS/COMPREHESIVE II

Grade 11, 12
Prerequisite Visual Arts I, Drawing I, Painting I, and one 3-Dimensional Course (Ceramics I or Sculpture I)

Enhances skills in art history, art criticism, aesthetic judgment and studio production. Emphasizes and reinforces knowledge and application of elements and principles of art through a variety of media, processes and visual recourses. Investigates master artworks to increase awareness and to examine the role of art and the artist in past and contemporary societies. This class is for the advanced self directed student seriously interested in a career in the arts.

VISUAL ARTS/COMPREHENSIVE (VACIII)
VISUAL ARTS/COMP III

Grade 9, 10, 11, 12 (CHHS 12)
Prerequisite Visual Comp I and II

Enhances level-two skills in art history, art criticism, aesthetic judgment and studio production. Provides practice in applying the elements and principles of a rt through a variety of media, processes and visual recourses. Provides focus on different two and three dimensional art media and processes and master artworks. Stresses ideas development through production and creativity through the study of the master artist.

VISUAL ARTS/COMPREHENSIVE (VACIV)
VISUAL ARTS/COMP IV

Grade 11, 12
Prerequisite Visual Comp I, II and III

Enhances level-three skills in art history, art criticism, aesthetic judgment and studio production. Provides opportunity for in-depth application of the elements and principles of art through a variety of media, processes and visual recourses. Provides focus on different two and three dimensional art media and processes and master artworks. Stresses creative problem solving through art production and the study of master artists and their works.

VISUAL ARTS/DRAWING I (VADI)
VISUAL ARTS/DRAWING I

Grade 10, 11, 12
Prerequisite Visual Comp I

Explores a variety of drawing techniques and media, emphasizing basic drawing skills and critical analysis skills for responding to master drawings of different historical styles and periods. Examines solutions to drawing problems through student drawings and those of other artists. Covers Western and non-Western cultures.

VISUAL ARTS/DRAWING II (VADII)
VISUAL ARTS/DRAWING II

Grade 10, 11, 12 (CHHS 11, 12)
Prerequisite Visual Comp I and Drawing I

Enhances level-one skills in techniques and provides further exploration of drawing media; reinforces basic drawing skills and critical analysis skills for responding to master drawings of different historical styles and periods. Examines solutions to drawing problems through student drawings and those of other artists.

VISUAL ARTS DRAWING AND PAINTING I

Grade 9, 10, 11, 12 (CHHS 10, 11, 12)
Prerequisite Visual Comp I and Drawing I

Introduces drawing and painting techniques and a variety of drawing and painting media. Stresses critical analysis of master paintings and drawings of different styles and historical periods; emphasizes problem-solving techniques to achieve desired results in personal work.

VISUAL ARTS DRAWING AND PAINTING II

Grade 9, 10, 11, 12 (CHHS 11, 12)
Prerequisite Visual Comp I, Drawing I, and Painting I

Enhances level-one drawing and painting skills and provides opportunities to apply drawing and painting techniques in a variety of media. Stresses critical analysis of master paintings and drawings of different styles and historical periods; emphasizes problem-solving techniques to improve techniques and mastery of materials.

VISUAL ARTS AP STUDIO: GENERAL PORTFOLIO (VAAPSGP)V ART/AP ST

Grade 10, 11, 12
Prerequisite Visual Comp I and Any Two Art Courses

Conforms to College Board topics for the Advanced Placement Studio Art Portfolio Examination. Requires submission of original works and slides to be evaluated on quality. Provides opportunity to work in one or more media such as drawing, painting, graphics, photography, animation cells, and sculpture. Designed for students interested in the practical experiences of art.

FINE ARTS

VISUAL ART CERAMICS I
Grade 10, 11, 12
Prerequisite Visual Arts I

Beginning pottery course exploring hand-building techniques. History of clay and art criticism taught in this course.

VISUAL ART CERAMICS II
Grade 10, 11, 12 (CHHS 11, 12)
Prerequisite Ceramics I, Visual Arts I

Advanced pottery course using hand building and wheel throwing techniques to create utilitarian and aesthetic works.

SCULPTURE I
Grade 10, 11, 12 (CHHS 11, 12)
Prerequisite Visual Arts I, and Ceramics I

Beginning sculpture course that explores three-dimensional media such as wire, clay, plaster, woodcarving, assemblage, etc.

SCULPTURE II
Grade 10, 11, 12 (CHHS 12)
Prerequisite Ceramics I, Visual Arts I

Advanced sculpture course using three-dimensional media and producing high quality works of art.

PHOTOGRAPHY I
Prerequisite Visual Art I

This is a beginning photography course exploring the history and development of photography, making pinhole cameras, the basic camera types, basics of darkroom processes and film development. Students work to create a portfolio of photos showing competency in basic photographic processes.

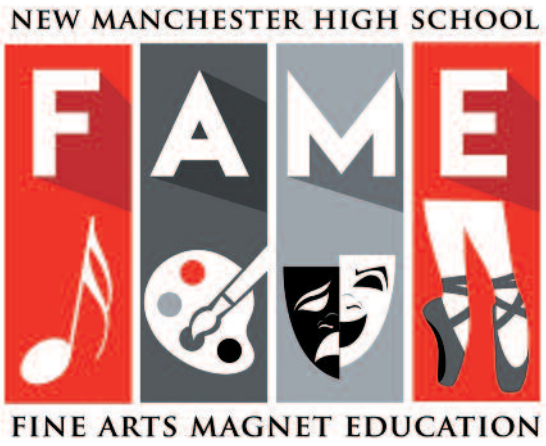
PHOTOGRAPHY II
Prerequisite Visual Art I, and Photography I

This class build on skills acquired in Photography I. Digital Photo editing using Photoshop is introduced. The role of photojournalism and documentary photography as well as photo careers are explored. Students explore different camera types and film formats as well as some alternative and historical photo processes. Students work to develop a portfolio of photographic images stressing excellence and personal vision.

PHOTOGRAPHY III, IV
Prerequisite Visual Art I, Photography I, and Photography II

Students work on a somewhat independent basis to assemble a portfolio of high competency and professionalism. Students may weight the majority of the portfolio toward digital or film based images based on their preference but are expected to be competent in all. The students develop a digital portfolio that can be used in seeking post-secondary opportunities and they do research into cutting edge trends in photography and photojournalism.

NMHS FINE ARTS



The Fine Arts Magnet Education Program at New Manchester High School is a pre-professional Fine Arts program that was founded in 2012 to serve students that demonstrate an advanced level of talent in instrumental music, vocal music, dance, acting, musical theatre, visual art and technical theatre. Its goal is to develop and nurture talented young artists and prepare them for post-secondary collegiate opportunities or successful careers in the fine arts through advanced training. The prospective FAME students' attendance, academic record, discipline record, and talent potential are considerations for acceptance into the program. Student can only be accepted into one area of study (band, chorus, drama, dance, or visual art), but can take other fine arts classes as elective provided their schedule permits. Junior FAME students are allowed to request to minor in another FAME area. Students study in their major concentration for minimum of two class periods each day. To earn the Fine Arts seal FAME students are required to remain in the program every semester of their high school careers. As long as it does not conflict with their area requirements, FAME students are encouraged to participate in extracurricular performances and opportunities to work with top professionals in the arts from the Atlanta area throughout the United States. Auditions are held each spring for rising freshmen and transfer students seeking admission into the program. The application process is highly competitive, and a number of criteria are considered part of this process.

NMHS FINE ARTS

BAND

INTERMEDIATE BAND I, II, III, IV

Grade 9, 10, 11, 12
Prerequisite Beginning Band or Instructor Placement

This course provides opportunities for intermediate- level performers to increase, refine and develop performance and precision skills on a wind or percussion instrument (preferably wind). It emphasizes performance and production; may include analysis, historical and cultural influences, improvisation and appreciation of music at intermediate levels of understanding.

INTERMEDIATE INSTRUMENTAL ENSEMBLE I, II, III, IV

Grade 9, 10, 11, 12
Prerequisite Band Member with Percussion Experience/Instructor Placement

This class is for any band member who has prior experience playing percussion instruments in middle school or high school. It would teach the foundations of all instruments in the percussion section and each student would be expected to be able to play mallet instruments, snare rudiments, as well as many other fundamental skills on the various instruments. The students will be playing music for marching band, concert band, and percussion ensemble. Grades are largely based on class participation and playing tests on all percussion instruments

ADVANCED BAND I, II, III, IV

Grade 9, 10, 11, 12
Prerequisite Instructor Placement

Provides opportunities for advanced-level performers to increase, develop and refine performance skills and precision on a wind or percussion instrument. Covers performance and production, analysis and theoretical studies, historical and cultural contributions and influences, creative aspects of music and appreciation of music at advanced levels of understanding. Organizes objectives for self-paced progress through all four levels. Stresses individual progress and learning strategies and ensemble experiences.

MASTERY BAND I, II, III, IV

Grade 10, 11, 12
Prerequisite FAME Students ONLY/ FAME Band Teacher Placement

This course provides opportunities for advanced-level performers to increase, refine and develop performance and precision instrumental skills. It emphasizes performance and production; may include analysis, historical and cultural influences, improvisation and appreciation of music at advanced levels of understanding. Both Mastery Band (Symphonic and Concert Bands) perform at all concerts and festivals, giving all students the opportunity to showcase their talents and will participate in marching band, concert band, pep band, ensembles and solo playing. Students will study both solo and ensemble settings, music theory, music history, reading, and writing music.

CHORUS

BEGINNING CHORUS (ELECTIVE)

Grade 9, 10, 11, 12
Prerequisite None

Beginning Chorus is offered to students who would like to sing for enjoyment while developing their musical knowledge and vocal skills. Emphasis is placed on increasing music reading skills, diction, intonation, and vocal technique. Students are REQUIRED to wear approved concert attire for performances. Grades are largely based on daily class participation, basic skills tests, class work, and performance participation. Attention is given to all the areas that are essential to membership in a music performance.

INTERMEDIATE CHORUS

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY/ FAME Choral Teacher Placement

This is a performance based class. It provides opportunities for intermediate-level FAME performers to increase, develop, and refine performance skills and precision vocally. Students are required to attend all after school events such as concerts and other performances. Emphasis is placed on increasing music reading skills diction, intonation, and vocal technique. Students are REQUIRED to purchase a chorus uniform. Some uniforms are available for rental. Grades are largely based on daily class participation, basic skills tests, class work, and performance participation. Attention is given to all the areas that are essential to membership in a music performance.

ADVANCED CHORUS

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY/ FAME Choral Teacher Placement

This is an advanced level performance based class. It provides opportunities for advanced-level performers to increase, develop, and refine performance skills and precision vocally. Students are required to attend after school events such as concerts and other performances. Emphasis is placed on increasing music reading skills diction, intonation, and vocal technique. Students are REQUIRED to purchase a chorus uniform. Some uniforms are available for rental. Grades are largely based on daily class participation, basic skills tests, class work, and performance participation. Attention is given to all the areas that are essential to membership.

MASTERY CHORUS

Grade 10, 11, 12
Prerequisite FAME Students ONLY/ FAME Choral Teacher Placement

This is a Mastery level performance based class. It provides opportunities for Mastery-level performers to increase develop and refine performance skills with vocal precision. Students in this class are also required to participate in movement based show choir. Students are required to attend after school events such as concerts and other performances. Emphasis is placed on increasing music reading skills, diction, intonation, and vocal technique. Students are REQUIRED to purchase a chorus uniform. Grades are largely based on Performance participation, class participation, basic skills test, and class work.

NMHS FINE ARTS

MUSIC

KEYBOARD TECHNIQUES (Piano) I, II, III, IV

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Introduces basic piano keyboard techniques for music or musical theatre students. Covers performance and production, analysis and theoretical studies, historical and cultural contributions and influences, creative aspects of music and appreciation of music.

MUSIC THEORY

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

This is a class designed for band, chorus, and musical theatre students. Introduces the fundamentals of organized sound. Emphasizes rules of Western music composition and offers opportunities to create original works. May include using computers for composition. Introduces non-Western approaches to theory and composition.

MUSIC HISTORY

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

This is a class required for band and chorus for students. Introduces musical genres, styles, composers and media in historical context. Includes comparison and contrast of musical style periods from antiquity to the contemporary period, the prominent composers and literature of the period, social and cultural influences, interdisciplinary studies of art, theater, dance, politics, and music of world cultures and indigenous American music. Emphasizes perceptive listening and analysis and speaking and writing about music and musicians.

DANCE

BEGINNING DANCE I

Grade 9, 10, 11, 12
Prerequisite None

Beginning-level technique emphasizing the basic principles of different dance styles including ballet, modern, and jazz. Students will learn basic dance concepts and vocabulary to prepare them for performance. Students are required to attend rehearsals and performances after school.

BALLET I

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Introduces basic ballet technique at an advanced level; covers placement, turn out, body lines, epaulement, adagio and allegro skills. Stresses aesthetic perception, creative expression and performance, historical and cultural heritage and aesthetic judgment and criticism.

BALLET II

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Enhances level-one skills; emphasizes the development and execution of elementary technical skills. Offers opportunities to perform and observe quality dance as an art form. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

BALLET III

Grade 10, 11, 12
Prerequisite FAME Students ONLY

Enhances level-two skills; emphasizes intermediate-level technical skills, a further expansion of ballet vocabulary and a broader experience of performance opportunities. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

BALLET IV

Grade 11, 12
Prerequisite FAME Students ONLY

Enhances level-three skills; emphasizes advanced-level technical skills, technique development, artistic growth and individual style. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

BALLET V

Grade 12
Prerequisite FAME Students ONLY

Enhances level-four skills; emphasizes advanced-level technical skills, technique development, artistic growth and individual style. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

NMHS FINE ARTS

DANCE

JAZZ DANCE I
Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Introduces basic jazz techniques and vocabulary. Emphasizes aesthetic perception, creative expression and performance, historical and cultural heritage and aesthetic judgment and criticism. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

JAZZ DANCE II
Grade 10, 11, 12
Prerequisite FAME Students ONLY

Enhances level-one skills; introduces jazz vocabulary, combinations of jazz technique skills, complex rhythms, longer phrases and specific techniques. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

JAZZ DANCE III
Grade 11,12
Prerequisite FAME Students ONLY

Enhances level-two skills; emphasizes intermediate-level technical skills, a further expansion of jazz vocabulary and a broader experience of performance opportunities. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

JAZZ DANCE IV
Grade 12
Prerequisite FAME Students ONLY

Enhances level-three skills; emphasizes advanced-level technical skills, further expansion of jazz vocabulary and a broader experience of performance opportunities. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

MODERN DANCE III
Grade 11, 12
Prerequisite FAME Students ONLY

Enhances level-two skills; emphasizes intermediate-level technical skills, a further expansion of modern dance vocabulary, improvisation and a broader experience of performance opportunities. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

DANCE

MODERN DANCE IV
Grade 12
Prerequisite FAME Students ONLY

Enhances level-three skills; emphasizes advanced-level technical skills, speed and quality of movement, complex combinations, improvisational performance technique, the development of individual style and artistic growth. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

DANCE COMPOSITION
Grade 10, 11, 12
Prerequisite FAME Students ONLY/Instructor placement

Introduces dance composition; covers how to identify and execute the basic principles of composition (i.e., design, improvisation, use of qualities and musical forms). Concentrates on the development of themes and performance of multiple phrase composition. Emphasizes individual creativity and use of choreographic tools. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

DANCE HISTORY
Grade 10, 11, 12
Prerequisite FAME Students ONLY/Instructor placement

Introduces dance history; covers its historical and cultural growth in various societies and the development of dance in Western culture. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

AFRICAN DANCE
Grade 10, 11, 12
Prerequisite FAME Students ONLY/Instructor placement

Students will explore the basic dance movements and rhythms of West African dance. Through the exploration of traditional dance and songs, students will gain an understanding of the history of movement and its cultural significance. Students will also develop basic sequencing skills and rhythm. Students are required to attend rehearsals and performances after school. A costume rental fee and class uniform are also required.

NMHS FINE ARTS

DRAMA

THEATRE ARTS/FUNDAMENTALS OF DRAMA I (ELECTIVE)

Grade 9, 10, 11, 12
Prerequisite None

Fundamentals I (Elective) is an introductory level class open to any student who has the interest in learning about Drama. Theatre Arts/Fundamentals I serves as prerequisite for other theater/drama courses. Develops and applies performance skills through access to basic vocal, physical and emotional exercises; includes improvisation and scene study and related technical art forms.

THEATRE ARTS/FUNDAMENTALS OF DRAMA I (FAME)

Grade 9
Prerequisite Audition/Instructor placement

Fundamentals I (FAME) is an advanced introductory level class specifically for new FAME drama students. Theatre Arts/ Fundamentals I (FAME) serves as prerequisite for other FAME theater/drama courses. Develops and applies performance skills through access to basic vocal, physical and emotional exercises; includes improvisation and scene study and related technical art forms.

THEATRE ARTS/FUNDAMENTALS OF DRAMA II (FAME)

Grade 10
Prerequisite Audition/Instructor placement

Enhances level-one skills. Continues to develop and apply performance skills through access to intermediate vocal, physical and emotional exercises; includes improvisation and scene study and related technical art forms.

THEATRE ARTS/FUNDAMENTALS OF DRAMA III (FAME)

Grade 11
Prerequisite Audition/Instructor placement

Enhances level-two skills by producing and studying literature as related to theater. Provides opportunities for performance with focus on language arts classes. Continues to develop and apply performance skills through access to more advanced vocal, physical and emotional exercises; includes improvisation and scene study and related technical art forms.

THEATRE ARTS/FUNDAMENTALS OF DRAMA IV (FAME)

Grade 12
Prerequisite Audition/Instructor placement

Enhances level-three skills by producing and writing plays for presentation; explores the role of the playwright. Provides opportunities for practical application. Continues to develop and apply performance skills through access to advanced vocal, physical and emotional exercises; includes improvisation and scene study and related technical art forms.

ACTING I-III (FAME ACTING CONSERVATORY)

Grade 9, 10, 11, 12
Prerequisite FAME Acting Conservatory Students ONLY

Introduces advanced acting process. Stresses developing imagination, observation, concentration powers and self-discipline. Includes developing physical and vocal control while transmitting emotions, convictions and ideas; enhances self-confidence and self-awareness. Focuses on scene study.

DRAMA

ADVANCED DRAMA I-IV (FAME ACTING CONSERVATORY)

Grade 9, 10, 11, 12
Prerequisite FAME Acting Conservatory Students ONLY

Introduces acting and theater as disciplined art forms; covers methods to observe and understand human behavior and to use those observations to create a character. Includes basic techniques of stage movement and use of physical expression for communication. Enhances vocal techniques and specific patterns for better verbal communication.

MUSICAL THEATER I-V

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

This course introduces and expands on the style and characteristic elements of modern musical theater. Covers production staging, orchestration, voice and dance; offers an opportunity for team teaching through interdisciplinary collaboration with the chorus, band, art, technology, physical education and dance instructors. Offers opportunity for performance.

TECHNICAL THEATRE I-IV

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Introduces technical considerations of play production; covers properties, lighting and settings, program, box office, marketing, management, make-up and costumes.

THEATRE TECHNOLOGY I-IV

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Emphasizes theater operation, production management, scenic design, and theatrical management including lighting, sound, stage and house management, building and equipment maintenance, and working with performers and patrons of the arts.

THEATRE ARTS LITERATURE I - 52.08100

Introduces the historical development of theater and the literature of varied cultures and historical periods. Includes exploration of theatre text, character analysis, and evaluation of theatre literature from significant people and in response to significant events.

THEATRE ARTS LITERATURE II - 52.08200

Enhances level-one skills and continues to explore the historical development of theater and the literature of varied cultures and historical periods. Includes exploration of theatre text, character analysis, and evaluation of theatre literature from significant people and in response to significant events.

THEATRE MARKETING

This course is designed to provide participants with knowledge, research, exploration, and analysis to enable them to effectively promote dramatic arts in a variety of settings.

NMHS FINE ARTS

VISUAL ARTS

ART HISTORY
Grade 11
Prerequisite FAME Students ONLY

Introduces art history, art criticism, aesthetic judgment and studio production. Emphasizes the ability to understand and use elements and principles of art through a variety of media, processes and visual recourses. Explores masters' artworks for historical and cultural significance.

VISUAL ARTS/COMPREHENSIVE (VACI)
VISUAL ARTS/COMP I
Grade 9, 10, 11, 12
Prerequisite None

Introduces art history, art criticism, aesthetic judgment and studio production. Emphasizes the ability to understand and use elements and principles of art through a variety of media, processes and visual recourses. Explores masters' artworks for historical and cultural significance.

VISUAL ARTS/COMPREHENSIVE (VACII)
VISUAL ARTS/COMP II
Grade 10, 11, 12
Prerequisite Visual Arts I

Enhances skills in art history, art criticism, aesthetic judgment and studio production. Emphasizes and reinforces knowledge and application of elements and principles of art through a variety of media, processes and visual recourses. Investigates master artworks to increase awareness and to examine the role of art and the artist in past and contemporary societies. This class is for the advanced self-directed student seriously interested in a career in the arts.

VISUAL ARTS/COMPREHENSIVE (VACIII)
VISUAL ARTS/COMP III
Grade 11, 12
Prerequisite Visual Comp I and II

Enhances level-two skills in art history, art criticism, aesthetic judgment and studio production. Provides practice in applying the elements and principles of art through a variety of media, processes and visual recourses. Provides focus on different two and three dimensional art media and processes and master artworks. Stresses ideas development through production and creativity through the study of the master artist.

VISUAL ARTS

VISUAL ARTS/COMPREHENSIVE (VACIV)
VISUAL ARTS/COMP IV
Grade 12
Prerequisite Visual Arts I, II and III

Enhances level-two skills in art history, art criticism, aesthetic judgment and studio production. Provides practice in applying the elements and principles of art through a variety of media, processes and visual recourses. Provides focus on different two and three dimensional art media and processes and master artworks. Stresses ideas development through production and creativity through the study of the master artist.

VISUAL ARTS/DRAWING I (VADI)
VISUAL ARTS/DRAWING I
Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Explores a variety of drawing techniques and media, emphasizing basic drawing skills and critical analysis skills for responding to master drawings of different historical styles and periods. Examines solutions to drawing problems through student drawings and those of other artists. Covers Western and non-Western cultures.

VISUAL ARTS/DRAWING II (VADII)
VISUAL ARTS/DRAWING II
Grade 10, 11, 12
Prerequisite FAME Students ONLY

Enhances level-one skills in techniques and provides further exploration of drawing media; reinforces basic drawing skills and critical analysis skills for responding to master drawings of different historical styles and periods. Examines solutions to drawing problems through student drawings and those of other artists.

VISUAL ARTS/DRAWING III (VADIII)
VISUAL ARTS/DRAWING IV (VADIV)
Grade 11, 12
Prerequisite FAME Students ONLY

VISUAL ARTS 8
Grade 12
Prerequisite FAME Students ONLY

Enhances skills in art history, art criticism, aesthetic judgment and studio production. Provides opportunities to use two and three-dimensional art media and process in the development of individual portfolios used in job, art school and college applications. Stresses refining of portfolio and production of slides intended for submission for judging. Enhances art-criticism writing skills of both master works and student productions. Provides opportunities for preparing and exhibiting art work.

NMHS FINE ARTS

VISUAL ARTS

VISUAL ARTS PAINTING I

Grade 10, 11, 12
Prerequisite FAME Students ONLY

Introduces drawing and painting techniques and a variety of drawing and painting media. Stresses critical analysis of master paintings and drawings of different styles and historical periods; emphasizes problem-solving techniques to achieve desired results in personal work.

VISUAL ARTS PAINTING II

Grade 10, 11, 12
Prerequisite FAME Students ONLY

Enhances level-one drawing and painting skills and provides opportunities to apply drawing and painting techniques in a variety of media. Stresses critical analysis of master paintings and drawings of different styles and historical periods; emphasizes problem-solving techniques to improve techniques and mastery of materials.

CERAMICS I

Grade 9, 10, 11, 12
Prerequisite FAME Students ONLY

Beginning pottery course exploring hand-building techniques. History of clay and art criticism taught in this course.

CERAMICS II, III, IV
CERAMICS III

Grade 10, 11, 12
Prerequisite FAME Students ONLY

Advanced pottery course using hand building and wheel throwing techniques to create utilitarian and aesthetic works.

SCULPTURE I

Grade 10, 11, 12
Prerequisite FAME Students ONLY

Beginning sculpture course that explores three-dimensional media such as wire, clay, plaster, woodcarving, assemblage, etc.

SCULPTURE II

Grade 10, 11, 12
Prerequisite FAME Students ONLY

Advanced sculpture course using three-dimensional media and producing high quality works of art.

PHOTOGRAPHY

PHOTOGRAPHY I

Prerequisite Teacher Recommendation, Visual Art I

This is a beginning photography course exploring the history and development of photography, making pinhole cameras, the basic camera types, basics of darkroom processes and film development. Students work to create a portfolio of photos showing competency in basic photographic processes.

PHOTOGRAPHY II

Grade 10, 11, 12
Prerequisite FAME Students ONLY

This class build on skills acquired in Photography I. Digital Photo editing using Photoshop is introduced. The role of photojournalism and documentary photography as well as photo careers are explored. Students explore different camera types and film formats as well as some alternative and historical photo processes. Students work to develop a portfolio of photographic images stressing excellence and personal vision.

PHOTOGRAPHY III, IV

Grade 11, 12
Prerequisite Visual Art I, Photography I, and Photography II

Students work on a somewhat independent basis to assemble a portfolio of high competency and professionalism. Students may weigh the majority of the portfolio toward digital or film based images based on their preference but are expected to be competent in all. The students develop a digital portfolio that can be used in seeking post-secondary opportunities and they do research into cutting edge trends in photography and photojournalism.

AP STUDIO: GENERAL PORTFOLIO (VAAPSGP)V ART/AP ST)

Grade 11, 12
Prerequisite Visual Comp I and Any Two Art Courses

Conforms to College Board topics for the Advanced Placement Studio Art Portfolio Examination. Requires submission of original works and slides to be evaluated on quality. Provides opportunity to work in one or more media such as drawing, painting, graphics, photography, animation cells, and sculpture. Designed for students interested in the practical experiences of art.

DCHS IB PROGRAM

The International Baccalaureate Diploma Program (IB) is available only at Douglas County High School. This program is a rigorous, comprehensive program designed for the academically able and highly motivated, self-disciplined student who is successful in all academic areas. Syllabi and examinations incorporate global perspectives. The program is based on the concept that the upper secondary level education should encompass a broad range of subjects accommodating diverse student interests and intentions while adhering to the objectives of a cohesive liberal education. Every student will become proficient in language and mathematics, the two most important tools of communication and analysis. The student will study human behavior and the process of educational inquiry. The IB educational experience will provide the student with a well-rounded, highly academic course of study, emphasizing the development of the total individual.

Participation in the IB Program begins with preparatory IB courses in the 9th grade. The curriculum in the first two years emphasizes higher levels of thinking and critical analysis. Successful completion of the course work and examinations at the junior/senior level may earn college credits and/or advanced placement at colleges and universities around the world.

- *Language A – English*
- *Language B – French or Spanish*
- *Individuals and Societies – History, Economics or Philosophy*
- *Experimental Science – Biology, Chemistry or Design Technology*
- *Mathematics – Algebra II, IB Mathematical Studies Year I, Mathematics Year I, Mathematics Year 2*
- *6th Subject Option Choice of Visual Arts, Economics, a second modern language, Philosophy or Design Technology*

IN ADDITION, DIPLOMA CANDIDATES MUST:

- *Complete a Theory of Knowledge course during their junior and senior years.*
- *Write an extended research essay*
- *Participate in creative, activity, and service areas during their junior and senior years.*

PROGRAM PARTICIPATION REQUIREMENTS

- *Application – fall of 8th grade year*
- *Recommendations from five 8th grade academic teachers*
- *Milestones, Math Placement test*
- *Grades while in 6th, 7th, and 8th grades*
- *Interview – held in January of 8th grade year*

Acceptance letters will be sent in February before beginning 9th grade in fall.

The decision of the Selection Committee will be final.

DCHS IB PROGRAM

IB ENGLISH

PREPARATORY IB 9TH GRADE BRITISH LITERATURE AND COMPOSITION

Integrates writing, grammar and usage, literature, speaking, listening, and critical thinking skills. Presents the writing process: planning, drafting, revising, editing and proofing; the study of form in personalnarratives, descriptions, and expository papers with emphasis on writing. Includes reading a variety of multicultural literature: short stories, novels, tales, poetry, drama, and nonfiction. Emphasizes oral and written response to literature, distinguishing characteristics of various genres, literary elements, andvocabulary study. Summer reading assignmentsare mandatory.

PREPARATORY IB 10TH GRADE AMERICAN LITERATURE AND COMPOSITION

Offers opportunities to improve reading, writing, speaking/listening, and critical thinking skills through the study of American literature. Includes a variety of literary genres and multicultural writers in a chronological or thematic pattern. Emphasizes developing control in expository writing (thesis support), moving toward precision in personal narrative, descriptive, and persuasive writing. Refines research skills. Integrates grammar, mechanics, and usage into the writing process. Emphasizes oral and written response to literature, distinguishing characteristics of various genres, literary elements, and vocabulary study. Summer reading assignments are mandatory.

IB 11TH AND 12TH LITERATURE (2 YEAR COURSE)

Through the study of a wide range of literature, this course encourages students to appreciate the artistry of literature and to develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages, and by considering a range of critical approaches. The study of works in translation is especially important in introducing students, through literature, to other cultural perspectives. The response to the study of literature is through oral and written communication, thus enabling students to develop and refine their command of language.

IB MATHEMATICS

PREPARATORY IB 9TH GRADE ACCELERATED ALGEBRA I/GEOMETRY A

This is the first in a sequence of mathematics courses designed to prepare students to take IB Mathematical Studies or IB Mathematics Standard Level. It includes linear functions, systems of linear equations and inequalities, exponential functions, characteristics/transformations of linear/exponential functions, statistical analysis including regression, geometrical transformations, similarity/congruence, trigonometry, and circle postulates and theorems. Topics are represented in multiple ways, such as concrete/pictorial, verbal/written, numeric/data-based, graphical, and symbolic methods. Concepts are introduced and used, where appropriate, in the context of real-world applications. Focus is placed on students being able to analyze and apply concepts to open ended questions. Accelerated covers all of the topics of Coordinate Algebra and half of Analytic Geometry in one year.

PREPARATORY IB 9TH GRADE ALGEBRA I

This is the first in a sequence of mathematics courses designed to prepare students to take IB Mathematical Studies or IB Mathematics Standard Level. It includes linear functions, systems of linear equations and inequalities, exponential functions, characteristics/transformations of linear/exponential functions statistical analysis including regression, geometrical transformations, and select geometrical concepts on the coordinate plane. Topics are represented in multiple ways, such as concrete/pictorial, verbal/written, numeric/ data-based, graphical, and symbolic methods. Concepts are introduced and used, where appropriate, in the context of real-world applications. Focus is placed on students being able to analyze and apply concepts to open ended questions.

DCHS IB PROGRAM

IB MATHEMATICS

PREPARATORY IB 10TH GRADE ACCELERATED GEOMETRY B/ALGEBRA II

This is the second in a sequence of mathematics courses designed to prepare students to take IB Mathematical Studies Year. It includes right triangle trigonometry; exponential, logarithmic, and higher degree polynomial functions; matrices; linear programming; vertex-edge graphs; conic sections; planes and spheres; population means, standard deviations, and normal distributions. Topics are represented in multiple ways, such as concrete/pictorial, verbal/written, numeric/data-based, graphical, and symbolic methods. Concepts are introduced and used, where appropriate, in the context of real-world applications.

IB MATHEMATICS STUDIES

IB Math Studies is a two-year course. This class will introduce the skills needed to cope with the mathematical demands of a technological society with an emphasis on the application of mathematics to real-life, everyday situations. Students will be introduced to basic concepts and techniques associated with the graphing calculator, number sense, algebraic concepts, sets, logic, probability, functions, geometry, trigonometry, financial mathematics, and introductory differential calculus. Advanced Algebra/Algebra II is taught in the senior year.

IB MATHEMATICS SL YEAR 1 AND YEAR 2

IB Math SL is a comprehensive two-year curriculum that allows students to fulfill requirements of various national education systems. IB Math SL consists of the study of six core topics: Numbers and Algebra; Functions and Equations; Circular Functions and Trigonometry; Vector Geometry; Statistics and Probability; and Calculus.

IB SCIENCE

PREPARATORY IB 9TH GRADE PHYSICS

Students in this course will learn basic concepts about matter and energy with emphasis on higher-order thinking skills. They will use appropriate scientific processes and investigative techniques to explore both matter, energy and the laws governing relationships of these in the universe. The objectives are differentiated to allow for more interdisciplinary topics and greater amounts of independent study. Research prepares students for Pre IB Chemistry and IB Biology. Areas covered include, but are not limited to: measurement, mechanics, properties of matter, waves, electricity and magnetism, and atomic and nuclear physics.

PREPARATORY IB 10TH GRADE BIOLOGY

This course explores 5 main areas of biology. They include cell structure and function. Plus the passage of biological traits from generation to generation. The relationship between single-celled and multi-celled organisms and the increasing complexity of systems. The interdependence of organisms and the flow of energy and matter within their ecosystems. Evaluation of the role of natural selection in the development of the theory of evolution. In addition, students will continue to develop the skills needed to succeed in your upper level IB chemistry courses, with emphasis on how to produce the various elements of a lab report.

PREPARATORY IB 10TH GRADE CHEMISTRY

The student will learn facts, formulas, and principles necessary to the essential understanding of the field of chemistry such as atomic structure, periodicity and bonding, nomenclature, compounds and chemical reactions, pH and solutions, characteristics of states of matter, chemical dynamics and equilibrium. Preparatory IB Chemistry will develop critical thinking, problem solving skills, and design lab skills.

IB BIOLOGY SL/HL

IB Biology will enable students to understand, apply and use scientific facts, concepts, and techniques, and present information using scientific terminology. Students will be able to construct, analyze, and evaluate hypotheses, research questions, and predictions. Primary focus will be to comprehend, appreciate, and put into context environmental issues, technological issues, and scientific ethics. Areas covered include, but are not limited to: genetics, ecology, health and physiology, applied plant and animal science, nucleic acids and proteins, cell respiration and photosynthesis. IB Biology is differentiated for accelerated learners through the rate and depth of coverage and the focus of the instructional modes. Emphasis is placed upon learner-centered investigations involving problem-solving, real-world application, and critical thinking about issues of significance on personal, community, state, national, and global levels.

DCHS IB PROGRAM

IB SCIENCE

IB CHEMISTRY SL

IB Chemistry is a comprehensive and rigorous curriculum designed to focus on creativity, application, investigation, and communication. Students will be able to construct, analyze, and evaluate hypotheses, research questions, and predictions. Through this two year course atomic structure, light, periodic table trends, bonding, stoichiometry, energetics, kinetics, equilibrium, acid and base solutions, redox reaction, and organic topics will be studied. An additional option will be explored and is chosen from materials chemistry, human biochemistry, energy, or medicinal chemistry. The students will become critically aware, as global citizens, of the ethical implications of using science and technology. The learners will also develop an appreciation of the possibilities and limitations of science and technology, and develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

IB DESIGN TECHNOLOGY

DP Design Technology aims to develop internationally-minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world. It focuses on analysis, design development, synthesis and evaluation. The creative tension between theory and practice is what characterizes design technology within the DP sciences subject group. Inquiry and problem-solving are at the heart of the subject. DP design technology requires the use of the DP design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing and evaluation of the solution. In Diploma Program design technology, a solution can be defined as a model, prototype, product or system that students have developed independently. DP design technology achieves a high level of design literacy by enabling students to develop critical-thinking and design skills, which they can apply in a practical context. While designing may take various forms, it will involve the selective application of knowledge within an ethical framework. A well-planned design program enables students to develop not only practical skills but also strategies for creative and critical thinking. Both science and technology have a fundamental relationship with design. Technology preceded science, but now most technological developments are based on scientific understanding. Traditional technology comprised useful artifacts often with little understanding of the science underpinning their production and use. In contrast, modern technology involves the application of scientific discoveries to produce useful artifacts. The application of scientific discovery to solve a problem enables designers to create new technologies and these new technologies, in turn, can impact on the rate of scientific discovery. The aim of the DP design technology course is to foster the skill development in students required to use new and existing technologies to create new products, services and systems.

IB SOCIAL STUDIES

PREPARATORY IB 9TH GRADE ECONOMICS

Focuses on the American economic system; covers fundamental economic concepts, personal finance, microeconomics, macroeconomics, and international economic interdependence. Stresses the ability to analyze critically and to make decisions concerning public issues.

PREPARATORY IB 9TH GRADE AMERICAN GOVERNMENT

Focuses on basic concepts and principles of the American political system. Covers the structure and function of the American system of government, the roles and responsibilities of citizen participation in the political process, and the relationship of the individual to the law and legal system. Students examine and critically analyze public issues.

10TH PREPARATORY IB/AP US HISTORY

This course investigates the period of U.S. history from late pre-Columbian times to the present. Stress is placed on building critical reading, thinking, and writing skills through a study of primary and secondary sources that examine the events, individuals, currents, and changes in American history. College Board identifies the following seven specific themes for study: American and national identity, migration and settlement, politics and power, work, exchange, and technology, American in the world, geography and the environment, and culture and society.

11TH GRADE IB HISTORY OF EUROPE YEAR 1

Examines social, political, economic, and cultural elements in Europe from 1066 to 2000. Topics studied include the medieval monarchies of England and France, the Renaissance and Reformation movements, European revolutions, the period of the world wars, and post-war Europe. Significance, continuity and change, perspectives, causation, and consequence are the key elements that guide and inform the examination of each topic. Students will learn to discuss, present, and write in depth about each area of study.

DCHS IB PROGRAM

IB SOCIAL STUDIES

12TH GRADE IB HISTORY OF EUROPE YEAR 2

IB World History is a course based on a comparative approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

IB ECONOMICS SL/HL

The IB Diploma Programme economics course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability. The ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values. The economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.

IB SOCIAL STUDIES

PHILOSOPHY

Philosophy is a systematic critical inquiry into profound, fascinating and challenging questions. These abstract questions arise out of our everyday experiences, and philosophical tools such as critical and systematic thinking, careful analysis, and construction of arguments provide the means of addressing such questions. The practice of philosophy deepens and clarifies our understanding of these questions, as well as our ability to formulate possible responses. The emphasis of the Diploma Programme philosophy course is on "doing philosophy", that is, on actively engaging students in philosophical activity. The course is focused on stimulating students' intellectual curiosity and encouraging them to examine both their own perspectives and those of others. Students are challenged to develop their own philosophical voice and to grow into independent thinkers, in addition to engaging with some of the world's most interesting and influential thinkers. The course also develops highly transferable skills such as the ability to formulate arguments clearly, to make reasoned judgments and to evaluate highly complex and multifaceted issues. All students study a core theme entitled "Being Human". This theme provides an opportunity to explore the fundamental question of what it is to be human. This exploration takes place through a discussion of key concepts such as identity, freedom, and human nature, and through a consideration of questions such as what sets humans apart from other species, where the boundaries of being human lie, and whether animals or machines could be considered persons. Students also develop their skills through the study of other philosophical themes and the close reading of a philosophical text. They also learn to apply their philosophical knowledge and skills to real-life situations and to explore how non-philosophical material can be treated in a philosophical way. HL students also engage in a deeper exploration of the nature of philosophy itself.

DCHS IB PROGRAM

IB WORLD LANGUAGE

PREPARATORY IB FRENCH II

This course builds on and expands the skills students acquired in French I class. Students communicate in more detail about a broader range of topics and can ask about, narrate and discuss past, present, and future events and plans. Vocabulary is emphasized as students become familiar with specific situations encountered in the target culture.

PREPARATORY IB FRENCH III

This course extends the skills and content taught in Prep IB French II in order to participate in more complicated situations, to communicate in extended conversations, to respond to authentic print, audio, and visual media, to react to current events and cultural patterns, and to develop organized composition and reporting skills in French. Emphasizes the students' ability to understand spoken French in various contexts and develop a vocabulary ample for reading a variety of writings, and their ability to express themselves with reasonable fluency and accuracy in both written and spoken French.

IB FRENCH SL/HL

This course develops students' proficiency in using oral and written language to inquire, narrate, and describe in a variety of tenses and situations. Students summarize and respond to authentic materials and media in the target language. Students read and discuss appropriate literary selections and use oral and written skills to respond to the visual art, music, and drama of the target cultures. Students use extended vocabulary to react to current events and issues present in the target cultures.

FRENCH I/PIB FRENCH II COHORT

First semester students meet daily and meet all expectations for first year world language.

Second semester students continue to meet daily. This course builds on and expands the skills students acquired in French I class. Students communicate in more detail about a broader range of topics and can ask about, narrate and discuss past, present, and future events and plans. Vocabulary is emphasized as students become familiar with specific situations encountered in the target culture.

IB WORLD LANGUAGE

PREPARATORY IB SPANISH II

This course builds on and expands the skills students acquired in Spanish I class. Students communicate in more detail about a broader range of topics and can ask about, narrate and discuss past, present, and future events and plans. Vocabulary is emphasized as students become familiar with specific situations encountered in the target culture.

PREPARATORY IB SPANISH III

This course extends the skills and content taught in Prep IB Spanish II in order to participate in more complicated situations, to communicate in extended conversations, to respond to authentic print, audio, and visual media, to react to current events and cultural patterns, and to develop organized composition and reporting skills in Spanish. Emphasizes the students' ability to understand spoken Spanish in various contexts and develop a vocabulary ample for reading a variety of writings, and their ability to express themselves with reasonable fluency and accuracy in both written and spoken Spanish.

IB SPANISH SL/HL

This course develops students' proficiency in using oral and written language to inquire, narrate, and describe in a variety of tenses and situations. Students summarize and respond to authentic materials and media in the target language. Students read and discuss appropriate literary selections and use oral and written skills to respond to the visual art, music, and drama of the target cultures. Students use extended vocabulary to react to current events and issues present in the target cultures.

SPANISH I/PIB SPANISH II COHORT

First semester students meet daily and meet all expectations for first year world language.

Second semester students continue to meet daily. This course builds on and expands the skills students acquired in Spanish I class. Students communicate in more detail about a broader range of topics and can ask about, narrate and discuss past, present, and future events and plans. Vocabulary is emphasized as students become familiar with specific situations encountered in the target culture.

DCHS IB PROGRAM

IB FINE ARTS

IB VISUAL ARTS SL/HL

Incorporates art history and criticism with practical studio work. Provides both cognitive and effective experiences while exploring the relationship between theory and practice. An integrated and inquiring approach will be encouraged as art is studied through a variety of media, processes and visual recourses. Students will be encouraged to develop their own perspectives and approaches to the concept of visual art.

IB THEORY OF KNOWLEDGE

IB TOK

A critical component of the IB Program, the TOK course integrates knowledge that students acquire in the curricular areas and includes reflection of acquired knowledge to distinguish the subjective from the objective, the particular from the universal and opinion from scientific knowledge. Students will develop an understanding of the diverse ways of knowing and to consider the role knowledge plays in a global society. Internationalism is central and students will be challenged to question the human nature of knowledge and experience in terms of prejudice, certainty, relativism, and skepticism as they become critical thinkers.

LSHS STEM ACADEMY

The Science Technology Engineering and Mathematics (STEM) Academy at LSHS was established to provide a challenging learning environment that is a model of innovation and excellence, which maximizes individual potential and ensures students are well-equipped to meet the challenges in the world around them. This program is for academically advanced students who thrive in an environment of rigorous inquiry, interdisciplinary study, and technology-driven instruction. The student's course of study in either biomedical science, computer science, or engineering is enriched by service learning projects, academic competitions, and internships.

Through continual hands-on labs and activities, STEM students have the opportunity to become proficient on an astonishing array of technology uncommonly found in high schools, including a Stratasys Uprint 3D Printer, Sprit LS Laser Cutter/Engraver, CNC Lathe, and a CNC Mill. They are introduced to robotics through both VEX and Lynx Motion, and have access to a variety of precision software and interfaces, such as Autodesk Inventor, Computer Aided Design (CAD), PASCO, and Vernier, utilized in research universities and designed to emulate the work of industry professionals. Finally, the science department is equipped with all standard technology, in addition to a Biosafety cabinet and fume hood, centrifuges, Nanospectrometer (for proteins and DNA analysis), Autoclave, Incubator, gel electrophoresis apparatus, Evotec equipment (PCR) Polymerase Chain Reaction, and a variety of PASCO probeware, temperature software, sensors and interfaces.

The STEM program at LSHS utilizes Project Lead the Way's (PLTW) specialized curriculum as well as the College Board's Advanced Placement (AP®) courses to provide students a curriculum that is both rigorous and designed to enhance their STEM endeavors. Successful completion of the course work and examinations at all levels may earn college credits, advanced placement, preferred admission, and/or scholarships at colleges and universities around the world.

Program Pathways

- Biomedical Science
- Computer Science
- Engineering

Diploma Candidates Must

- Receive credit for four advanced level English courses (including two at college-level).
- Receive credit for four advanced Mathematics courses (including one at college-level).
- Receive credit for five advanced Science courses, beyond STEM pathway course requirements (including three at college-level).
- Receive two foreign language credits.
- Complete 128 hours of community service by April of their senior year.
- Participate in a 60 internship or educational experience.
- Compete in a minimum of two academic competitions per year, including the Science and Engineering Fair.
- Satisfactorily participate in annual STEMposium presentations.
- Satisfactorily complete a senior capstone presentation.
- Maintain a 3.0 GPA.
- Receive no failing grades.

Considerations for Program Participation

- Online application – fall of 8th grade year
- Online recommendations from all core academic 8th grade teachers
- Milestone Scores
- Grades while in 6th, 7th, & 8th grades
- Discipline and Attendance Records
- Interview – held in January of 8th grade year

LSHS STEM ACADEMY

STEM BIOMEDICAL SCIENCE

PLTW PRINCIPLES OF BIOMEDICAL SCIENCE
Honors Forensic Science

This Project Lead the Way (PLTW) course introduces biomedical science through exciting hands-on projects and problems. Students investigate concepts of biology and medicine as they explore a variety of health conditions. The activities and projects in PBS introduce students to human physiology, basic biology, medicine, and research processes and allow students to design experiments to solve problems. Key biological concepts, including maintenance of homeostasis in the body, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. This course is designed to provide an overview of all the courses in the biomedical science program and lay the scientific foundation for subsequent courses. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

PLTW HUMAN BODY SYSTEMS
Honors Anatomy and Physiology & Essentials of Healthcare Science

In this Project Lead the Way (PLTW) course, students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases, and often play the role of biomedical professionals to solve medical mysteries. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

PLTW MEDICAL INTERVENTIONS
Honors Epidemiology

Project Lead the Way's (PLTW) Medical Interventions (MI) allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. A "How-- To" manual for maintaining overall health and homeostasis in the body, the course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios

STEM BIOMEDICAL SCIENCE

students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each family case scenario will introduce multiple types of interventions, reinforce concepts learned in the previous two courses, and present new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions will be showcased across the generations of the family and will provide a look at the past, present, and future of biomedical science. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important role that scientific thinking and engineering design play in the development of interventions of the future.

PLTW BIOMEDICAL INNOVATIONS
Honors Scientific Research

In this Project Lead the Way (PLTW) capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community. In the Biomedical Innovation course, students will be asked to apply what they have learned in the previous three courses to solve unique problems in science, medicine, and healthcare. Students will work systematically through required problems before completing optional directed problems or independent work. Each problem is staged as a mission – a unique set of tasks the students must work through to achieve their desired objective. Students are presented with each problem in a Mission File – a document that includes a case brief, a list of completion tasks, links to available resources, as well as a reflection section. Working through the missions not only exposes students to current issues in biomedical science, but it also provides skills-based instruction in research and experimentation – tools students will use to design innovative solutions to real-world problems. Students will use what they learn in these missions as they develop and implement their independent project at the end of the year. A teacher may use additional resources in the community – the guidance of other teachers in the school, the advice of scientists or biomedical professionals, or the knowledge presented in scientific literature to help students achieve each goal.

LSHS STEM ACADEMY

STEM COMPUTER SCIENCE

PLTW COMPUTER SCIENCE ESSENTIALS
Introduction to Digital Technology

While this Project Lead the Way (PLTW) course is an excellent entry point for new high school computer science (CS) learners, students who have prior CS experiences will also find ample opportunity to expand upon those experiences. All students who take CS Essentials will have many opportunities for creative expression and exploration in topics of personal interest, whether it be through app development, web design, or connecting computing with the physical world. CS Essentials introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming side-by-side. Finally, students will learn the power of text-based programming as they are introduced to the Python® programming language. This course engages students in computational thinking practices and collaboration strategies, as well as industry standard tools authentic to how computer science professionals work. Students will learn about professional opportunities in computer science and how computing can be an integral part of all careers today.

PLTW COMPUTER SCIENCE PRINCIPLES
AP Computer Science Principles

This Project Lead the Way (PLTW) course is an implementation of the College Board's new AP CS Principles framework. Students work in teams to develop computational thinking and solve problems through content that is rigorous, fresh, and exciting. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The course also aims to build students' awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. Each unit focuses on one or more computationally intensive career paths. The course also aims to engage students to consider issues raised by the present and future societal impact of computing. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems aim for ground-level entry with no ceiling so that all students can successfully engage the problems. Students with greater motivation, ability, or background knowledge will be challenged to work further.

STEM COMPUTER SCIENCE

PLTW COMPUTER SCIENCE A
AP Computer Science A

This Project Lead the Way (PLTW) course aligns with the College Board's CS A framework. CSA builds on the basic skills learned in PLTW Computer Science Principles (CSP) to teach students Java and authentic AndroidTM app development. Students in this course continue to hone their communication and collaboration skills while learning to use a variety of tools. The primary goal of the course is to create independent-thinking app developers: every unit in this course builds on students' prior knowledge and skills until they are able to complete an app development cycle independently from the ground up. This course is designed to be readily adaptable to student interests and community assets. Individual teachers are encouraged to modify the course content so that it feels as authentic and meaningful within the local context as possible. This course aims to fully develop Object Oriented Programming (OOP) skills that were introduced in CSP and will require consummate engagement with the material for success. As such, augmenting content to keep it fresh and exciting is a priority.

PLTW CYBERSECURITY
Introduction to Cybersecurity & Advanced Cybersecurity
Available Fall 2019

This Project Lead the Way (PLTW) course introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely. Completion of this two-credit course will afford students the opportunity to complete a second CTAE CS pathway.

LSHS STEM ACADEMY

STEM ENGINEERING

PLTW INTRODUCTION TO ENGINEERING DESIGN
Foundations of Engineering and Technology

Introduction to Engineering Design (IED) is a high school level foundation course in the PLTW Engineering Program. In IED students are introduced to the engineering profession and a common approach to the solution of engineering problems, an engineering design process. Utilizing the activity project-problem-based (APB) teaching and learning pedagogy, students will progress from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Through both individual and collaborative team activities, projects, and problems, students will solve problems as they practice common engineering design and development protocols such as project management and peer review. Students will develop skill in technical representation and documentation of design solutions according to accepted technical standards, and they will use current 3D design and modeling software to represent and communicate solutions. In addition, the development of computational methods that are commonly used in engineering problem solving, including statistical analysis and mathematical modeling, are emphasized. Ethical issues related to professional practice and product development are also presented.

PLTW PRINCIPLES OF ENGINEERING
Engineering Concepts

This second year Project Lead the Way (PLTW) course is a foundation course of the high school engineering pathway. This survey course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. Students have the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APB) learning. By solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment, APB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

STEM ENGINEERING

PLTW COMPUTER INTEGRATED MANUFACTURING
Engineering Applications

Manufactured items are part of everyday life, yet few people understand the excitement and innovation that is used to transform ideas into products. This Project Lead the Way (PLTW) course provides an opportunity for students to recognize many of the exciting career opportunities in the manufacturing industry. CIM is one of the specialization courses in the PLTW Engineering program. The course deepens the skills and knowledge of an engineering student within the context of efficiently creating the products all around us. Students build upon their Computer Aided Design (CAD) experience through the use of Computer Aided Manufacturing (CAM) software. CAM transforms a digital design into a program that a Computer Numerical Controlled (CNC) mill uses to transform a block of raw material into a product designed by a student. Students learn and apply concepts related to integrating robotic systems such as Automated Guided Vehicles (AGV) and robotic arms into manufacturing systems. Throughout the course, students learn about manufacturing processes and systems. This course culminates with a capstone project where students design, build, program, and present a manufacturing system model capable of creating a product.

PLTW ENGINEERING DESIGN AND DEVELOPMENT
Post-AP Physics

Engineering Design and Development (EDD) is the capstone course in the Project Lead the Way (PLTW) high school engineering program. It is an open-ended engineering research course in which students work in teams to design and develop an original solution to a well-defined and justified open-ended problem by applying an engineering design process. Students will perform research to select, define, and justify a problem. After carefully defining the design requirements and creating multiple solution approaches, teams of students select an approach, create, and test their solution prototype. Student teams will present and defend their original solution to an outside panel. While progressing through the engineering design process, students will work closely with experts and will continually hone their organizational, communication and interpersonal skills, their creative and problem solving abilities, and their understanding of the design process.