

# FREDERICK COUNTY PUBLIC SCHOOLS CAREER PLANNING TOOL

2008-2009

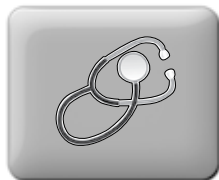
## CAREER PATHWAYS



**ARTS AND COMMUNICATIONS**



**BUSINESS MANAGEMENT SYSTEMS**



**HEALTH SERVICES**



**HUMAN SERVICES**



**INDUSTRIAL AND ENGINEERING TECHNOLOGY**



**NATURAL RESOURCES AND AGRICULTURE**



# TABLE OF CONTENTS

Overview .....	3
Career Pathways at Frederick County Public Schools.....	3
Graduation Requirements .....	4
Developing a Personal Education and Career Plan .....	5
Personal Education and Career Plan Worksheet .....	6
Career Pathways Information	
Arts and Communications Career Pathway .....	7
Business Management Systems Career Pathway .....	8
Health Services Career Pathway .....	9
Human Services Career Pathway .....	10
Industrial Engineering and Technology Career Pathway .....	11
Natural Resources and Agriculture Career Pathway.....	12
Fast Forward .....	13
Career Development Activities Inventory	
High School .....	19
Post-High School .....	20
Terms to Know.....	21



## OVERVIEW

This Career Planning Tool will help you in the process of creating your own Personal Education and Career Plan throughout your high school years and beyond:

- meet graduation requirements
- get the most out of your education
- learn and experience valuable career-related activities
- set yourself on a clear path toward lifelong learning

The Career Planning Tool is organized as follows:

- Frederick County Career Pathways
- FCPS Graduation Requirements
- Tips for Developing Your Personal Education and Career Plan
- A Personal Education and Career Plan Form for you to complete and annually review
- Career Pathways: Descriptions, Program Offerings and Sample Career Choices with suggested academic and technical elective course listings
- Fast Forward Program information
- Career Development Activities Inventory(ies)
- Terms to Know

The following pages include information, guidelines and selections that are intended to help YOU. Use it as the title indicates as *a career planning tool*, to build YOUR future.

## CAREER PATHWAYS AT FREDERICK COUNTY PUBLIC SCHOOLS

Each of the six **CAREER PATHWAYS** below includes **CAREER FOCUS** options.

### ARTS AND COMMUNICATIONS

- Communications Technology
- Art and Design
- Humanities
- Performing Arts

### BUSINESS MANAGEMENT SYSTEMS

- Finance and Accounting
- Business Administration
- Office Technologies
- Marketing and Retail

### HEALTH SERVICES

- Diagnostic Services
- Therapeutic Services
- Environmental Services
- Information Services

### HUMAN SERVICES

- Education
- Tourism and Consumer Services
- Government and Legal Services
- Social Sciences

### INDUSTRIAL ENGINEERING AND TECHNOLOGY

- Information Technology
- Manufacturing
- Engineering and Technical
- Construction and Technical Maintenance

### NATURAL RESOURCES AND AGRICULTURE

- Environment and Natural Resources
- Food Science and Safety
- Agricultural Industries
- Biotechnology

# GRADUATION REQUIREMENTS

To graduate from high school, the following credits will need to be taken during your four years in high school.

COURSE	CREDITS
English	4
Math	4
Science	3
Social Studies	3
Health/Fitness	1
Fine Arts	1
Technology Education	1
Career Pathway Electives (class of 2009 and beyond)	3
Additional Electives	5
<b>TOTAL CREDITS TO GRADUATE</b>	<b>25</b>

**In addition to the credits listed above, students should follow a program of study. The three program of study options are listed below.**

**Both CTE (Career and Technology Education) and USM (University System of Maryland) program of study option**

– graduate leaves with increased options for success at a post-secondary institution and a career. The student must have taken:

- An approved CTE Completer Program (minimum of 4 credits)–Program Offerings are listed on the first page of each “Pathway” description later in this Planning Tool

**and**  Mathematics at level of Algebra 2 and beyond

**and**  2 Credits in Foreign Language

**CTE – Career and Technology Education Completer** – graduate leaves with work-readiness skills in a concentrated career and technical area. The student must have taken:

- An approved CTE Completer Program (minimum of 4 credits)–Program Offerings are listed on the first page of each “Pathway” description later in this Planning Tool

**USM – University System of Maryland Program of Study** – graduate leaves with the courses necessary to enter a post-secondary institution. *(This completer status does not mean they are automatically accepted at the University of Maryland.)* The student must complete:

- Mathematics at level of Algebra 2 and beyond

**and**  2 Credits in Foreign Language

*The above graduation requirements and program of study options reflect minimum requirements for completion and do not replace quality educational and career counseling and planning by students, counselors, teachers, parents and the community throughout the student's educational experience.*

## DEVELOPING A PERSONAL EDUCATION AND CAREER PLAN

*Understanding the credits required to graduate and the program of study options is just the beginning to an exciting opportunity for you to prepare yourself to face the challenges of the demanding world of work and the constantly changing economy.*

### CAREER CONNECTIONS MEANS PUTTING PARTNERSHIPS TO WORK FOR YOU



Ask your counselor, teachers, parents, or business and community members about internships, work-study options, service learning, and job shadowing opportunities that can help you explore your career interests.

Take advantage of the Fast Forward program and earn college credit for courses taken in high school allowing you to graduate college more quickly.

### KEEP IN MIND THE DIFFERENCE

**Career Pathway** – A group of occupations/careers that require similar skills, abilities and interests

**Career Pathway Focus** – A selection of concentrated academic and technical electives within a Career Pathway

**Career and Technology Education (CTE) Program Completer** – Maryland State Department of Education approved sequence of courses in a career pathway. *See your counselor for a complete listing of CTE program sequences.*

### ONCE YOU HAVE...

Spent time exploring your own interests to determine what career focus you plan to pursue, use this guide to plan your high school and post-secondary educational and career path. Remember there is flexibility; however, it is limited as each year passes.

### NOW IT'S TIME TO DEVELOP YOUR PLAN...THINK ABOUT:

- Classes and other ways to get hands-on experience in the areas that interest you
- Taking one or more college classes while you are in high school
- Learning academic content in “real world” context
- Participating in a work-based internship or other transition experience

# Frederick County Public School System Personal Education and Career Plan

Student Name \_\_\_\_\_

*(This plan is not a student's schedule and is subject to change.)*

Date \_\_\_\_\_

## Career Pathway (Choose One)

- Arts and Communications     Health Services     Industrial Engineering and Technology
- Business Management Systems     Human Services     Natural Resources and Agriculture

## Program of Study (Choose One)

- BOTH USM & CTE (Recommended)
- USM     CTE

*(List the subjects you plan to take in Grades 9-10-11-12)*    *(Indicate your plans beyond high school.)*

	9	10	11	12	POST SECONDARY
<b>REQUIRED CREDITS:</b> 4 English 4 Mathematics 3 Science 3 Social Studies 1 Fine Arts 1 Technology Education 1 Fitness/Health 3 Career Pathway (Class of 2009 and beyond) <u>AND</u> 2 Foreign Language <u>OR</u> 2 Advanced Technology <u>OR</u> CTE Completer (usually 4 credits) Additional Electives to Graduate Total to Graduate: 25	English 9 Math Lab Science Government	English 10 Math Biology Modern World History	English 11 Math Lab Science American Studies 2	English 12 Math	CHECK ONE <input type="checkbox"/> Apprenticeship <input type="checkbox"/> 2 Year College/Technical School <input type="checkbox"/> 4 Year College/Professional <input type="checkbox"/> Employment <input type="checkbox"/> Military
TOTAL CREDITS					

To be taken at any level	<input type="checkbox"/> Technology Education <input type="checkbox"/> Health/Fitness <input type="checkbox"/> Fine Arts	<input type="checkbox"/> 2 Advanced Technology <u>OR</u> <input type="checkbox"/> CTE Completer (usually 4 credits) <u>OR</u> <input type="checkbox"/> 2 Foreign Language
Recommended at grades 11 or 12	<input type="checkbox"/> 3 Career Pathway Credits (class of 2009 and beyond)	<input type="checkbox"/> 1 Transition Experience

**List courses completed in Middle School for which you will receive high school credit.**

\_\_\_\_\_


\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**FAST FORWARD – List courses you plan to take where you may earn college credit.**



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Approved:**

\_\_\_\_\_ **Signature of Student**    \_\_\_\_\_ **Date**

\_\_\_\_\_ **Signature of Parent**    \_\_\_\_\_ **Date**

\_\_\_\_\_ **Signature of Counselor**    \_\_\_\_\_ **Date**

10/07     – Electives     – Required for Graduation

# ARTS AND COMMUNICATIONS CAREER PATHWAY

Consider the ARTS AND COMMUNICATIONS pathway if you are creative and innovative, enjoy participating in music, theater or dance activities, like to express yourself through writing, designing, photography or performance, value color, shape and texture, and prefer free, unstructured situations.

## PROGRAM OFFERINGS IN FREDERICK COUNTY PUBLIC SCHOOLS

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>✓ Cosmetology</li> <li>✓ Digital Communications Technology</li> <li>✓ Fashion Merchandising</li> </ul> | <ul style="list-style-type: none"> <li>✓ Graphic Communications and Printing Technology</li> <li>✓ Television and Multimedia Production</li> </ul> |
|---|--|

*Additional program offerings to be developed*

See your counselor or pathway teacher for more information on program course sequences that provide work-based learning, transition experiences and college program offerings.

<b>SAMPLE CAREERS</b>			
Actor/Actress	Cinematographer/Film and Video	Graphic Designer	Painter
Architect	Dancer	Illustrator	Potter
Archivist	Desktop Publisher	Interpreter	Printer
Artist	Digital Imaging Specialist	Jeweler	Publisher
Art Therapist	Drama/Theater	Journalist	Sculptor
Author	Drama/Theater Director	Multimedia Specialist	Stage and Set Designer
Broadcast Technician	Entertainer	Museum Curator	Writer
Cartoonist	Fashion/Interior Designer	Musician	

*You must choose 3 elective credits from the lists below if you have chosen Arts and Communications as your career pathway.*

<b>FOCUS AREA</b>			
<b>Communications Technology</b>	<b>Art and Design</b>	<b>Humanities</b>	<b>Performing Arts</b>
<ul style="list-style-type: none"> <li>• Advanced Technical Studies</li> <li>• Analytical Thinking and Problem Solving</li> <li>• Career Research and Development</li> <li>• Computers and Networking</li> <li>• Continuing Studies in Integrated Music Technology 1, 2, 3, 4</li> <li>• Digital Communications Technology 1, 2, 3, 4</li> <li>• Film Study</li> <li>• Foreign Language 3, 4</li> <li>• Integrated Communication Technology</li> <li>• Introduction to Integrated Music Technology</li> <li>• Journalism</li> <li>• Media Literacy</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Music Technology</li> <li>• National and Global Affairs</li> <li>• Publications 1, 2, 3</li> <li>• Web Site Development</li> <li>• TV and Multimedia</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement Studio Art</li> <li>• Art 1, 2, 3</li> <li>• Art Independent</li> <li>• Study 1, 2, 3, 4</li> <li>• Ceramics 1, 2, 3, 4</li> <li>• Clothing Construction</li> <li>• Commercial Art 1, 2</li> <li>• Computer Aided Design (Architecture and Engineering)</li> <li>• Computer Graphics 1, 2, 3, 4</li> <li>• Cosmetology</li> <li>• Digital Photography 1</li> <li>• Drawing and Painting 1, 2, 3</li> <li>• Fashion Merchandising</li> <li>• Foreign Language 3, 4</li> <li>• Graphic Communications and Printing Technology</li> <li>• Horticulture/Floriculture</li> <li>• Jewelry and Small Sculpture</li> <li>• Landscape Management</li> <li>• Photography 1, 2, 3, 4</li> <li>• Publications 1, 2, 3</li> <li>• Sculpture 1, 2</li> <li>• Web Site Development</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement European History</li> <li>• Advanced Placement Foreign Language</li> <li>• Advanced Placement Language and Composition</li> <li>• Advanced Placement Western Art History</li> <li>• Advanced Placement World History</li> <li>• Creative Writing</li> <li>• Economics and Geography</li> <li>• Film Study</li> <li>• Foreign Language 3, 4</li> <li>• Forensics and Debate</li> <li>• Geography</li> <li>• Humanities</li> <li>• International Business and Finance</li> <li>• Leadership Development</li> <li>• Media Literacy</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• National and Global Affairs</li> <li>• National and Global Issues</li> <li>• Statistics and Probability</li> <li>• Second Foreign Language 1, 2, 3, 4</li> <li>• Sign Language 1, 2</li> <li>• Sociology</li> <li>• Western Art History</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Acting II</li> <li>• Advanced Acting</li> <li>• Advanced Musical Studies 1, 2</li> <li>• Advanced Placement Language and Composition</li> <li>• Advanced Placement Music Theory</li> <li>• Advanced Theater Studies 1, 2</li> <li>• Advanced Theatrical Production 1, 2</li> <li>• Band 1-8</li> <li>• Class Piano 1-8</li> <li>• Concert Choir 1-8</li> <li>• Continuing Studies in Integrated Music Technology 2, 3, 4</li> <li>• Dance, Advanced</li> <li>• Dance, Beginner</li> <li>• Dance, Intermediate</li> <li>• Dance Production</li> <li>• Foreign Language 3, 4</li> <li>• Guitar 1-8</li> <li>• Instrumental Chamber Ensemble 1-8</li> <li>• Introduction to Integrated Music Technology</li> <li>• Introduction to Theatre</li> <li>• Jazz Ensemble 1-8</li> <li>• Marching Band: Band Front 1-4</li> <li>• Mixed Chorus 1-8</li> <li>• Music Listening and Literature</li> <li>• Music Technology</li> <li>• Music Theory 1, 2</li> <li>• String Orchestra 1-8</li> <li>• Technical Theatre 1-8</li> <li>• Voice Ensemble 1-8</li> <li>★ Career Pathway Transition Experience*</li> </ul>

\*See "Terms to Know" on page 21.

# BUSINESS MANAGEMENT SYSTEMS CAREER PATHWAY

Consider the BUSINESS MANAGEMENT SYSTEMS pathway if you enjoy competition and influencing the opinions of others, like working with facts, numbers and data, enjoy detail-oriented tasks and speaking and writing clearly and accurately, initiating and organizing events and groups of people, are comfortable following rules and directions of others and like contacts with all kinds of people.

## PROGRAM OFFERINGS IN FREDERICK COUNTY PUBLIC SCHOOLS

- ✓ Academy of Finance
- ✓ Administrative Assistant
- ✓ Business Administrative Services
- ✓ Finance and Accounting
- ✓ Management Information Systems (Microsoft Certified Professional (MCP))
- ✓ Marketing

*Additional program offerings to be developed*

See your counselor or pathway teacher for more information on program course sequences that provide work-based learning, transition experiences and college program offerings.

<b>SAMPLE CAREERS</b>			
Accountant (CPA) Administrative Assistant Advertising Coordinator Auditor Bank Clerk Business Manager	Customer Service Specialist Data Entry Operator Financial Specialist Loan Officer Medical Secretary	Office Manager Personnel Director Public Relations Director Real Estate Agent Receptionist	Retail/Food Service Manager Sales Clerk Stock Broker System Analyst Travel Agent
<i>You must choose 3 elective credits from the lists below if you have chosen Business Management Systems as your career pathway.</i>			
<b>FOCUS AREA</b>			
<b>Finance and Accounting</b>	<b>Business Administration</b>	<b>Office Technologies</b>	<b>Marketing and Retail</b>
<ul style="list-style-type: none"> <li>• Academy of Finance 1, 2</li> <li>• Accounting 1, 2</li> <li>• Advanced Placement Economics</li> <li>• Applied Business Law</li> <li>• College Business and Finance</li> <li>• Contemporary Mathematics</li> <li>• Economics and Geography</li> <li>• Foreign Language 3, 4</li> <li>• International Business and Finance</li> <li>• Introduction to Business</li> <li>• Managing Your Personal Finances</li> <li>• Marketing</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Management and Entrepreneurship</li> <li>• Math</li> <li>• Statistics and Probability</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting 1, 2</li> <li>• Advanced Placement Computer Science</li> <li>• Advanced Placement Economics</li> <li>• Advanced Placement Psychology</li> <li>• Applied Business Law</li> <li>• Calculus</li> <li>• Contemporary Mathematics</li> <li>• Creative Writing</li> <li>• Economics and Geography</li> <li>• Foreign Language 3, 4</li> <li>• International Business and Finance</li> <li>• Introduction to Business</li> <li>• Leadership Development</li> <li>• Management and Entrepreneurship</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Programming and Computer Science</li> <li>• Statistics and Probability</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting 1, 2</li> <li>• Advanced Placement Computer Science</li> <li>• Applied Business Law</li> <li>• Communications and Networking</li> <li>• Contemporary Mathematics</li> <li>• Foreign Language 3, 4</li> <li>• Introduction to Business</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Principles of Programming</li> <li>• Programming and Computer Concepts</li> <li>• Web Site Development</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting 1, 2</li> <li>• Commercial Art 1, 2</li> <li>• Contemporary Mathematics</li> <li>• Creative Writing</li> <li>• Economics and Geography</li> <li>• Foreign Language 3, 4</li> <li>• International Business and Finance</li> <li>• Introduction to Business</li> <li>• Management and Entrepreneurship</li> <li>• Marketing Education 1, 2</li> <li>• Publications 1, 2, 3</li> <li>• Statistics and Probability</li> <li>• Web Site Development</li> <li>★ Career Pathway Transition Experience*</li> </ul>

\*See "Terms to Know" on page 21.

# HEALTH SERVICES CAREER PATHWAY

Consider the HEALTH SERVICES pathway if you have a curiosity about medical problems and advances, a concern for physical and mental fitness, an aptitude in science, math and social studies, an aptitude for working with computers, desire to work in hospitals, clinics or health and wellness facilities.

## PROGRAM OFFERINGS IN FREDERICK COUNTY PUBLIC SCHOOLS

- ✓ Biomedical Sciences
- ✓ Professional Health Careers
- ✓ Fire and Rescue
- ✓ Fundamentals of Nursing

*Additional program offerings to be developed*

See your counselor or pathway teacher for more information on program course sequences that provide work-based learning, transition experiences and college program offerings.

SAMPLE CAREERS			
Athletic Trainer	Emergency Medical Technician	Nurse Practitioner	Radiology Technician
Audiologist	Geriatric Nursing	Physical Therapist	Registered Nurse
Biomedical Scientist	Home Health Aide	Physician	Respiratory Therapist Technician
Dental Hygienist/Assistant	Hospice Worker	Physician's Assistant	Safety/Sanitation Specialist
Dental Lab Technician	Medical Records Technician	Practical Nurse	Speech Pathologist
Dentist	Medical Technician	Public Health Educator	Surgical Technician
Dietician	Nurse's Aide		
<i>You must choose 3 elective credits from the lists below if you have chosen Health Services as your career pathway.</i>			
FOCUS AREA			
Diagnostic Services	Therapeutic Services	Environmental Services	Information Services
<ul style="list-style-type: none"> <li>• Advanced Placement Environmental Science</li> <li>• Advanced Placement Biology</li> <li>• Advanced Placement Chemistry</li> <li>• Advanced Placement Physics</li> <li>• Advanced Placement Psychology</li> <li>• Agri-Science</li> <li>• Algebra-Based Physics</li> <li>• Analytical Thinking and Problem Solving</li> <li>• Child Development 1, 2, 3</li> <li>• Contemporary Mathematics</li> <li>• Fitness</li> <li>• Foreign Language 3, 4</li> <li>• Fundamentals of Nursing</li> <li>• Health, Aquatics</li> <li>• Horse Care and Management</li> <li>• Personal Relationships and Effective Parenting (P.R.E.P.)</li> <li>• Professional Health Careers</li> <li>• Sports Medicine</li> <li>• Statistics and Probability</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement Psychology</li> <li>• Aquatics</li> <li>• Child Development 1, 2, 3</li> <li>• Contemporary Mathematics</li> <li>• Fire and Rescue</li> <li>• Foreign Language 3, 4</li> <li>• Fundamentals of Nursing</li> <li>• Personal Relationships and Effective Parenting (P.R.E.P.)</li> <li>• Professional Health Careers</li> <li>• Sociology</li> <li>• Sports Medicine</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement Biology</li> <li>• Advanced Placement Chemistry</li> <li>• Advanced Placement Environmental Science</li> <li>• Agri-Science</li> <li>• Auto Mechanics</li> <li>• Contemporary Mathematics</li> <li>• Earth and Space Science Systems</li> <li>• Economics and Geography</li> <li>• Environmental Science</li> <li>• Foreign Language 3, 4</li> <li>• Forensics and Debate</li> <li>• Forestry and Wildlife Management</li> <li>• Horticulture/Floriculture</li> <li>• Landscaping</li> <li>• National and Global Issues</li> <li>• Science Research</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Academy of Finance 1, 2</li> <li>• Accounting 1, 2</li> <li>• Advanced Placement Computer Science</li> <li>• Communications and Networking</li> <li>• Computer Graphics 1, 2, 3, 4</li> <li>• Contemporary Mathematics</li> <li>• Foreign Language 3, 4</li> <li>• Integrated Communication Technology</li> <li>• International Business and Finance</li> <li>• Leadership Development</li> <li>• Management and Entrepreneurship</li> <li>• Marketing Education 1, 2</li> <li>• Media Literacy</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Principles of Programming</li> <li>• Programming and Computer Science</li> <li>• Television/Multimedia Production</li> <li>• Web Site Development</li> <li>★ Career Pathway Transition Experience*</li> </ul>

\*See "Terms to Know" on page 21.

# HUMAN SERVICES CAREER PATHWAY

Consider the HUMAN SERVICES pathway if you either like to help others learn and grow, are interested in social and cultural issues and making a difference, get along with people, can handle crises and are interested in ensuring public safety OR if you enjoy providing a service and meeting the needs of others, can work independently and make decisions, like contact with all kinds of people, and have a mind for business priorities and customer service.

## PROGRAM OFFERINGS IN FREDERICK COUNTY PUBLIC SCHOOLS

- ✓ Child Development
- ✓ Commercial Foods
- ✓ Cosmetology
- ✓ Criminal Justice
- ✓ Culinary Arts/Food Production
- ✓ Fire and Rescue

*Additional program offerings to be developed*

See your counselor or pathway teacher for more information on program course sequences that provide work-based learning, transition experiences and college program offerings.

<b>SAMPLE CAREERS</b>			
Chef/Baker Child Care Worker Clergy Correctional Officer Counselor Custodian	Economist FBI Agent Firefighter Forensic Scientist Funeral Director Law Enforcement Officer	Lawyer Mental Health Worker Military Paralegal Principal Psychologist	Public Administrator Social Worker Substance Abuse Counselor Teacher Translator
<p><i>You must choose 3 elective credits from the lists below if you have chosen Human Services as your career pathway.</i></p>			
<b>FOCUS AREA</b>			
Education	Tourism and Consumer Services	Government and Legal Services	Social Sciences
<ul style="list-style-type: none"> <li>• Advanced Placement Language and Composition</li> <li>• Advanced Placement Literature</li> <li>• Advanced Placement Psychology</li> <li>• Advanced Placement Statistics</li> <li>• Analytical Thinking / Problem Solving</li> <li>• Applied Business Law</li> <li>• Applied Communications</li> <li>• Child Development 1, 2, 3</li> <li>• Computer Graphics 1, 2, 3, 4</li> <li>• Contemporary Mathematics</li> <li>• Foreign Language 3, 4</li> <li>• Forensics and Debate</li> <li>• Integrated Communication Technology</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Psychology</li> <li>• Sociology</li> <li>• Web Site Development</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• American Popular Music</li> <li>• American Sign Language</li> <li>• Applied Business Law</li> <li>• Applied Communications</li> <li>• Commercial Foods</li> <li>• Contemporary Mathematics</li> <li>• Cosmetology</li> <li>• Culinary Arts</li> <li>• Cultures and Cuisine</li> <li>• Economics &amp; Geography</li> <li>• Film Study</li> <li>• Foreign Language 3, 4</li> <li>• Geography</li> <li>• Horticulture/Floriculture</li> <li>• Individual &amp; Dual Sports</li> <li>• Integrated Communications Technology</li> <li>• Introduction to Business</li> <li>• Management and Entrepreneurship</li> <li>• Marketing Education 1, 2</li> <li>• National and Global Issues</li> <li>• National and Global Affairs</li> <li>• Photography</li> <li>• Television/Multimedia Production</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Academy of Finance</li> <li>• Accounting 1, 2</li> <li>• Advanced Placement Biology</li> <li>• Advanced Placement Chemistry</li> <li>• Advanced Placement Economics</li> <li>• Advanced Placement Environmental Science</li> <li>• Advanced Placement Language and Composition</li> <li>• Advanced Placement Government</li> <li>• Advanced Placement Physics</li> <li>• Advanced Placement Spanish</li> <li>• Advanced Placement Statistics</li> <li>• Advanced Placement US History</li> <li>• Analytical Thinking / Problem Solving</li> <li>• Applied Business Law</li> <li>• Applied Communication</li> <li>• Applied Physics</li> <li>• Biotechnology</li> <li>• Contemporary Mathematics</li> <li>• Economics</li> <li>• Environmental Science/ Science and Societal Issues</li> <li>• Film Study</li> <li>• Fire Rescue/Cadet</li> <li>• Foreign Language 3, 4</li> <li>• Forensics and Debate</li> <li>• Forestry and Wildlife Management</li> <li>• Law and Society</li> <li>• Law Enforcement/ Security Services</li> <li>• National and Global Issues</li> <li>• Naval Science 1, 2, 3, 4</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement Calculus</li> <li>• Advanced Placement Economics</li> <li>• Advanced Placement Psychology</li> <li>• Advanced Placement Foreign Language</li> <li>• Advanced Placement Statistics</li> <li>• Advanced Placement US History</li> <li>• Analytical Thinking/ Problem Solving</li> <li>• Applied Communications</li> <li>• Child Development 1, 2, 3</li> <li>• Contemporary Mathematics</li> <li>• Economics</li> <li>• Economics and Geography</li> <li>• Environmental Science/ Science and Societal Issues</li> <li>• Film Study</li> <li>• Foreign Language 3, 4</li> <li>• National and Global Issues</li> <li>• National and Global Affairs</li> <li>• Naval Science 1, 2, 3, 4</li> <li>• Psychology</li> <li>• Sociology</li> <li>• Statistics and Probability</li> <li>★ Career Pathway Transition Experience*</li> </ul>

\*See "Terms to Know" on page 21.

# INDUSTRIAL ENGINEERING AND TECHNOLOGY CAREER PATHWAY

Consider the INDUSTRIAL ENGINEERING AND TECHNOLOGY pathway if you have the ability to gather and analyze data to solve problems, like working with computers, have a curiosity about how things work, understand cause and effect, perform work tasks to meet standards of accuracy, have mechanical ability, manual dexterity and hand-and-eye coordination, or enjoy working with tools.

## PROGRAM OFFERINGS IN FREDERICK COUNTY PUBLIC SCHOOLS

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>✓ Automotive Body/Collision Repair and Refinishing</li> <li>✓ Automotive Technology</li> <li>✓ Cabinetmaking</li> <li>✓ Computer Aided Design (CAD) Architectural &amp; Engineering</li> <li>✓ Computer Technician</li> <li>✓ Construction Technology/Carpentry</li> <li>✓ Construction Technology/Electricity</li> <li>✓ Construction Technology/Heating, Ventilation, Air Conditioning, Refrigeration and Plumbing/HVAC</li> </ul> | <ul style="list-style-type: none"> <li>✓ Construction Trades</li> <li>✓ Electronics</li> <li>✓ Engineering (Project Lead the Way) and Pre-Engineering</li> <li>✓ Graphic Communications and Printing Technology</li> <li>✓ Information Technology (Network, Database, Technician) (Cisco and A+ Certification)</li> <li>✓ Masonry</li> <li>✓ Welding (Ag Metals)</li> </ul> |
|---|---|

*Additional program offerings to be developed*

See your counselor or pathway teacher for more information on program course sequences that provide work-based learning, transition experiences and college program offerings.

<b>SAMPLE CAREERS</b>			
Aeronautics Engineer Aircraft Mechanic Architectural Engineer Auto Technician Carpenter Civil Engineer	Computer Aided Designer Computer Network Specialist Computer Programmer Construction Landscaping Construction Management Custodial/Maintenance	Database Administrator Electrician Electronic Engineer Electronics Technician Engineering Technician	HVAC Technician Nuclear Engineer Plumber Printing Technician Welder
<i>You must choose 3 elective credits from the lists below if you have chosen Industrial Engineering and Technology as your career pathway.</i>			
<b>FOCUS AREA</b>			
Information Technology	Manufacturing	Engineering and Technical	Construction and Technical Maintenance
<ul style="list-style-type: none"> <li>• Advanced Placement Computer Science</li> <li>• Advanced Technical Studies</li> <li>• Analytical Thinking/Problem Solving</li> <li>• Applied / Technical Math</li> <li>• CAD – all</li> <li>• Career Research /Development</li> <li>• Cisco Networking Academy</li> <li>• Communications and Networking</li> <li>• Computer Graphics</li> <li>• Computer Technician/Analyst</li> <li>• Foreign Language 3, 4</li> <li>• Contemporary Mathematics</li> <li>• Graphic Communication and Printing Technology</li> <li>• Integrating Communication Technology</li> <li>• Microsoft Certification Training 1, 2, 3</li> <li>• Music Technology</li> <li>• Pre College Topics in Computer Science</li> <li>• Principles of Programming</li> <li>• Programming and Computer Concepts</li> <li>• Television/Multimedia Production</li> <li>• Web Site Development</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Mechanics</li> <li>• Advanced Technical Studies</li> <li>• Agricultural and Commercial Metals Technology (Welding)</li> <li>• Analytical Thinking/Problem Solving</li> <li>• Applied/Technical Math</li> <li>• Architectural Drawing 1, 2</li> <li>• Cabinet Making 1, 2, 3, 4</li> <li>• CAD</li> <li>• Career Research and Development</li> <li>• Clothing Construction</li> <li>• Construction Technology/ Carpentry I, II, III</li> <li>• Contemporary Mathematics</li> <li>• Electronics</li> <li>• Engine and Power Technology</li> <li>• Foreign Language 3, 4</li> <li>• Graphics Communication and Printing Technology 1, 2</li> <li>• Technical Drawing 1, 2, 3, 4</li> <li>• Wood and Metal Structures</li> <li>• Woodworking 1, 2, 3, 4</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement Chemistry</li> <li>• Advanced Placement Computer Science</li> <li>• Advanced Placement Physics</li> <li>• Advanced Placement Statistics</li> <li>• Advanced Technical Studies</li> <li>• Algebra-based Physics</li> <li>• Analytical Thinking/Problem Solving</li> <li>• Applied Technical Math</li> <li>• Architectural Drawing - all</li> <li>• Calculus – all</li> <li>• CAD - all</li> <li>• Career Research Development</li> <li>• Chemistry</li> <li>• Computer Technician/Analyst</li> <li>• Communications and Networking</li> <li>• Communications Technology</li> <li>• Computers and Technology</li> <li>• Contemporary Mathematics</li> <li>• Drafting</li> <li>• Electronics</li> <li>• Energy and Mathematical Modeling</li> <li>• Foreign Language 3, 4</li> <li>• Physics</li> <li>• Pre-Calculus</li> <li>• Pre-College Topics in Computer Science</li> <li>• Pre-Engineering Technology 1, 2, 3</li> <li>• Principles of Programming</li> <li>• Programming and Computer Concepts</li> <li>• Statistics and Probability</li> <li>• Science Research</li> <li>• Technical Drawing - all</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Mechanics</li> <li>• Advanced Technical Studies</li> <li>• Agricultural and Commercial Metals Technology (Welding)</li> <li>• Analytical Thinking/Problem Solving</li> <li>• Applied Physics</li> <li>• Applied Technical Math</li> <li>• Architectural Drawing 1, 2</li> <li>• Auto Body 1, 2</li> <li>• Auto Mechanics 1, 2, 3</li> <li>• Automotive Technology 1, 2</li> <li>• Cabinetmaking 1, 2, 3</li> <li>• CAD Architectural - all</li> <li>• CAD Engineering - all</li> <li>• Calculus</li> <li>• Carpentry and Construction Trades 1, 2, 3</li> <li>• Construction Technology/ Carpentry 1, 2, 3</li> <li>• Construction Electricity 1, 2</li> <li>• Contemporary Mathematics</li> <li>• Engine and Power Technology</li> <li>• Extended Technical Studies</li> <li>• Heating, Ventilation, Plumbing and Air Conditioning 1, 2</li> <li>• Landscape Management 1, 2</li> <li>• Masonry 1, 2</li> <li>• Physics</li> <li>• Pre-Calculus with Trigonometry</li> <li>• Pre-Engineering Technology 1, 2, 3</li> <li>• Spanish 3, 4</li> <li>• Technical Drawing 1, 2, 3, 4</li> <li>• Wood and Metal Structures</li> <li>• Woodworking 1, 2, 3, 4</li> <li>★ Career Pathway Transition Experience*</li> </ul>

\*See “Terms to Know” on page 21.

# NATURAL RESOURCES AND AGRICULTURE CAREER PATHWAY

Consider the NATURAL RESOURCES AND AGRICULTURE pathway if you are concerned with conservation of the environment, like to learn about nature, plants, and animals, prefer to work outdoors, are fascinated by futuristic technology, comfortable learning and using new terminology and/or enjoy working in a laboratory.

## PROGRAM OFFERINGS IN FREDERICK COUNTY PUBLIC SCHOOLS

- ✓ Agriculture and Commercial Metals Technology (Welding)
- ✓ Agriculture Production
- ✓ Horticulture
- ✓ Landscape Management

*Additional program offerings to be developed*

See your counselor or pathway teacher for more information on program course sequences that provide work-based learning, transition experiences and college program offerings.

SAMPLE CAREERS			
Agricultural Engineer	Environmental Planner	Geologist	Land Surveyor
Agricultural Sales	Farm Worker	Government Biologist	Landscape Architect
Agriculture Teacher	Florist	Groundskeeper	Meat Cutter/Food Processor
Agronomist	Forensic Scientist	Laboratory Assistant	Park Maintenance
Animal Caretaker/Groomer	Forestry Technician	Land/Farm Manager	Soil Nutrient Technician
Biotechnology Lab Tech			

*You must choose 2 elective credits from the lists below if you have chosen Natural Resources and Agriculture as your career pathway.*

FOCUS AREA			
Environment and Natural Resources	Food Science and Safety	Agricultural Industries	Biotechnology
<ul style="list-style-type: none"> <li>• Advanced Placement Calculus</li> <li>• Advanced Placement Environmental Science</li> <li>• Agri-Science</li> <li>• Calculus A and B</li> <li>• Contemporary Mathematics</li> <li>• Earth/Space System Science</li> <li>• Environmental Science</li> <li>• Forestry and Wildlife Management</li> <li>• Horticulture/Floriculture 1, 2, 3</li> <li>• Landscape Management 1, 2</li> <li>• Spanish 3, 4</li> <li>• Statistics and Probability</li> <li>• Transition Education</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Placement Biology</li> <li>• Advanced Placement Calculus</li> <li>• Advanced Placement Chemistry</li> <li>• Calculus A, B</li> <li>• Chemistry 1, 2</li> <li>• Commercial Foods 1, 2</li> <li>• Contemporary Mathematics</li> <li>• Culinary Arts 1, 2</li> <li>• Cultures and Cuisine</li> <li>• Spanish 3, 4</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Agri-Science</li> <li>• Agricultural and Commercial Metals Technology 1, 2</li> <li>• Agricultural Work Experience</li> <li>• Agriculture/Horticulture Independent Study</li> <li>• Architectural Drawing 1, 2</li> <li>• Contemporary Mathematics</li> <li>• Engine and Power Technology 1, 2</li> <li>• Horticulture/Floriculture 1, 2, 3</li> <li>• Horse Care and Management 1</li> <li>• Spanish 3, 4</li> <li>★ Career Pathway Transition Experience*</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Biotechnology</li> <li>• Advanced Placement Biology</li> <li>• Advanced Placement Calculus</li> <li>• Advanced Placement Chemistry</li> <li>• Advanced Placement Environmental Science</li> <li>• Calculus A, B</li> <li>• Contemporary Mathematics</li> <li>• Foreign Language 1, 2</li> <li>• Pre-Engineering Technology</li> <li>• Science Mentor Intern Program</li> <li>• Science Research</li> <li>★ Career Pathway Transition Experience*</li> </ul>

\*See "Terms to Know" on page 21.

# FREDERICK COUNTY PUBLIC SCHOOLS

## FAST FORWARD PROGRAM

The Fast Forward Program allows students to earn college credit for select high school courses. Please refer to the following chart, and consult your guidance counselor for specific information about this program.

Current partner colleges are: Art Institute of Washington (AIW); AccuTech Career Institute (ACI); Community College of Baltimore County (CCBC); Center for Digital Arts at Boston University; Frederick Community College (FCC); Hagerstown Business College (HBC); Johnson & Wales University (JWU); Montgomery College (MC); Mt. St. Mary's University (MSM); Universal Technical Institute (UTI) and, West Virginia University Institute of Technology (WVUT).

FCPS COURSE TITLE	FCPS COURSE NUMBER(S)	PARTNER COLLEGE	COLLEGE COURSE NUMBER(S)	COLLEGE COURSE NAME	HIGH SCHOOL GRADE REQUIRED	COLLEGE CREDITS AWARDED
Accounting 1	332040	ACI	Business Information Specialist Module F	Accounting and Quickbooks	B	Module F waived
Cisco Networking Academy	538530 538501	ACI	Computer Network Specialist Module D	Network+ /Linux+	B	Module D waived
Computer Technician/Analyst	538510	ACI	Computer Network Specialist Module B & C	A+ Core/Server+ & A+ Operating Systems/ Server +	B	Module B and C waived
Microsoft Certification Training 1	335111	ACI	Business Information Specialist Module B & D	Microsoft Word; Business English	B	Module B and D waived
Microsoft Certification Training 1 & Contemporary Math	335111 & 233230	ACI	Business Information Specialist Module C	Microsoft Word, Business English; Microsoft Excel; Business Math	B	Module B and D waived
Microsoft Certification Training 2 & Introduction to Business	335121 & 331010	ACI	Business Information Specialist Module C	Microsoft Access and the Business Environment	B	Module C waived
Microsoft Certification Training 2 & Marketing 1	335121 & 533010	ACI	Business Information Specialist Module C	Microsoft PowerPoint and Marketing	B	Module E waived
Television and Multimedia 1	531020	AIW	CS 108	Computer Concepts	B	4
Television and Multimedia 2	531020 & 531040	AIW	CS 108, P 104 & VID 101	Computer Concepts Digital Photographic Production Intro Video Production	B	12
Automotive Technology 1 & 2	533060 & 534061 or 535061	CCBC	AUTO 126, AUTO 131, AUTO 141, AUTO 171	Repairing Automotive Brake Systems; Servicing Automotive Electrical and Electronics Systems; Servicing Automotive Engines and Related Systems; Repairing Automotive Suspension Systems	B or ASE-NATAF end-of-program score of 80% or higher	18
CAD/Architectural Graphics 1A	533085	CCBC	CADD 101	Introduction to CAD	B	3
CAD/Architectural Graphics 2A	534241	CCBC	CADD 103 & CADD 202	CAD Engineering Drawing; Introduction to Architectural CAD	B	6
CAD/Engineering Graphics 1B	533073	CCBC	CADD 101	Introduction to CAD	B	3

KEY		
ACI – AccuTech Career Institute	FCC – Frederick Community College	MSM – Mt. St. Mary's University
AIW – Art Institute of Washington	HBC – Hagerstown Business College	UTI – Universal Technical Institute
CCBC – Community College of Baltimore County	JWU – Johnson & Wales University	WVUT – West Virginia University Institute of Technology
CDIA – Center for Digital Arts at Boston University	MC – Montgomery College	

FCPS COURSE TITLE	FCPS COURSE NUMBER(S)	PARTNER COLLEGE	COLLEGE COURSE NUMBER(S)	COLLEGE COURSE NAME	HIGH SCHOOL GRADE REQUIRED	COLLEGE CREDITS AWARDED
CAD/Engineering Graphics 2B	534271	CCBC	CADD 103 & CADD 141	CAD Engineering Drawing; Introduction to Engineering CAD	B	6
Television and Multimedia	531020 & 531040 or 531020 & 531050	CDIA		Digital Filmmaking or Recording Arts	B	Tuition credit for 1 CDIA foundation module
Web Design	538511 & 538521 or 538511 & 538531	CDIA		3D Animation – Game Design or Graphic & Web Design	B	Tuition credit for 1 CDIA foundation module
Academy of Finance 1	538010	FCC	BU 103	Introduction to Business	B	3
Academy of Finance 2	538031 or 538021	FCC	BU 273	Business Communications	B	3
Academy of Finance Internship	566710	FCC	INTR 103	Internship	B	3
Accounting 1	332040	FCC	BU 100	Business Accounting	A	3
<b>Algebra 2 or higher in Senior Year</b>		<b>FCC</b>		<b>Math Placement Test Waived</b>	<b>B</b>	<b>0</b>
CAD/Architectural Graphics 1A	533085	FCC	CAD 101	Introduction to Auto CAD I	B	4
CAD/Architectural Graphics 2A	534241	FCC	CAD 102	Introduction to Auto CAD II	B	4
CAD/Architectural Graphics 1A	533085	FCC	CON 150	Applied Practices in Construction/ Construction Management I	B	3
CAD/Architectural Graphics 2A	534241	FCC	CON151	Applied Practices in Construction/ Construction Management II	B	3
Child Development 1, 2, & 3	362040 & 363041 & 363061	FCC	ED 100 ECD 104	Child Development & Behavior Activities I for Children	B	6
Computer Technician/Analyst	538510	FCC	CIS 158A; CIS 158B; CIS 158C	Microcomputers Software Applications; Operating Systems; Introduction to PC Hardware; PC Diag- nostics & Troubleshooting	B	7
Cisco Networking Academy	538530	FCC	CIS 190; CIS 191; CIS 192; CIS 193	Cisco 1, 2, 3, 4	B	20
Computers and Technology (CAT) & Programming and Computer Concepts	344050 & 341010	FCC	CIS 101	Introduction to Computers and Information Processing (This course meets the General Education requirement in any Associate degree.)	B	3
Construction Technology/Carpentry 1	533040	FCC	CON 150	Applied Practices in Construction/Construction Management I	B	3

KEY		
ACI – AccuTech Career Institute	FCC – Frederick Community College	MSM – Mt. St. Mary's University
AIW – Art Institute of Washington	HBC – Hagerstown Business College	UTI – Universal Technical Institute
CCBC – Community College of Baltimore County	JWU – Johnson & Wales University	WVUT – West Virginia University Institute of Technology
CDIA – Center for Digital Arts at Boston University	MC – Montgomery College	

FCPS COURSE TITLE	FCPS COURSE NUMBER(S)	PARTNER COLLEGE	COLLEGE COURSE NUMBER(S)	COLLEGE COURSE NAME	HIGH SCHOOL GRADE REQUIRED	COLLEGE CREDITS AWARDED
Construction Technology/Carpentry 2	534041 or 535041	FCC	CON 151	Applied Practices in Construction/Construction Management II	B	3
Construction Technology/Construction Electricity 1	533050	FCC	CON 150	Applied Practices in Construction/Construction Management I	B	3
Construction Technology/Construction Electricity 2	534051 or 535051	FCC	CON 151	Applied Practices in Construction/Construction Management II	B	3
Construction Technology/Plumbing/HVAC 1	533100	FCC	CON 150	Applied Practices in Construction/Construction Management I	B	3
Construction Technology/Plumbing/HVAC 2	534100 or 535101	FCC	CON 151	Applied Practices in Construction/Construction Management II	B	3
Construction Technology/Masonry 1	533130	FCC	CON 150	Applied Practices in Construction/Construction Management I	B	3
Construction Technology/Masonry 2	534131 or 535131	FCC	CON 151	Applied Practices in Construction/Construction Management II	B	3
Criminal Justice 1 & 2	539110 & 539130 or 539120	FCC	CJ 101	Introduction to Criminal Justice	B	3
Culinary Arts 1 & 2	533220 & 534161 or 535161	FCC	HOS 111	Culinary Fundamentals	B	2
Culinary Arts 1 & 2	533220 & 534161 or 535161	FCC	HOS 112	Food Preparation	A	3
Fire & Rescue Cadet	533451	FCC	FF1 FF2 HMO RTR	Firefighter 1 Firefighter 2 Hazardous Material Operations Rescue Technician	B	9
Introduction to Programming & Programming and Computer Concepts	341040 & 341010	FCC	CIS 106	Introduction to Object Design and Programming (This course meets the General Education requirement in any Associate degree.)	B	3
Keyboarding 1 & 2	331020 & 332020	FCC	CIS 103A	Introduction to Keyboarding	B	3
Landscape Management 1	533110 & 534111 or 535111	FCC	CON 150	Applied Practices in Construction/Construction Management I	B	3
Marketing Education 1 & 2	533010 & 534011 or 534001	FCC	INTR 103	Internship	B	3
Microsoft Certification Training 1 & Microsoft Certification Training 2	335111 & 335121	FCC	CIS 111R	Business Software Applications	B	3
Microsoft Certification Training 1 & Microsoft Certification Training 3	335111 & 335131	FCC	CIS 111A & CIS 111E	Word Processing & Microcomputer Applications: Spreadsheet	B	6

KEY		
ACI – AccuTech Career Institute	FCC – Frederick Community College	MSM – Mt. St. Mary's University
AIW – Art Institute of Washington	HBC – Hagerstown Business College	UTI – Universal Technical Institute
CCBC – Community College of Baltimore County	JWU – Johnson & Wales University	WVUT – West Virginia University Institute of Technology
CDIA – Center for Digital Arts at Boston University	MC – Montgomery College	

FCPS COURSE TITLE	FCPS COURSE NUMBER(S)	PARTNER COLLEGE	COLLEGE COURSE NUMBER(S)	COLLEGE COURSE NAME	HIGH SCHOOL GRADE REQUIRED	COLLEGE CREDITS AWARDED
Professional Health Careers	533030	FCC	MDA 101, MDA 102, and MDA 109	Foundations of Medical Assisting I, Foundations of Medical Assisting II, and Medical Terminology	B	2, 2, 3 (7 Total)
Television and Multimedia 1 & 2	531020 & 531040	FCC	CMM 152 OR CMM 252	Television Studio OR Digital Cinema	B	4
Accounting 1 & 2	332040 & 332041	HBC	ACC 101	Principles of Accounting I	B	3
Keyboarding 1 & 2	331020 & 332020	HBC	OTD 111	Beginning Keyboarding	B	3
Marketing Education 1 & 2	533010 & 534011	HBC	BUS 101 & BUS 221	Introduction to Business & Principles of Marketing	B	6
Professional Health Careers	533030	HBC	MED 105	Medical Terminology	B	3
Academy of Finance 1 & 2	538010 & 538021 or 538031	JWU	FI 2001 & EC 3040 & EC 1001	Introduction to Investments Money & Banking Macroeconomics	B	4.5 quarter credits each
Graphic Communication and Printing Technology 1 & 2	532050 & 534211 or 535151	MC	PR 116	Principles of Offset Presses	B	3
Academy of Finance 1 & 2	538010 & 538021 or 538031	MSM	To be determined upon enrollment	Elective Credit	A & minimum score of 80% on MSM comprehensive exam	3
Automotive Technology 1 & 2	533060 & 534061	UTI	C107; C117; A104; C128; A109; C108; A106	Brakes; Electronic Fundamentals; Fuel and Ignition Systems; Automotive Undercar; Automatic Transmission; Climate Control; Automotive Power Trains	ASE-NATAF certification in any one of the areas as college course name	Advanced Placement in that area
Graphic Communications and Printing Technology 1 & 2	532050 & 534211 or 535151	WVUT	PRNT-111; PRNT-114; PRNT-115; PRNT-116; PRNT-126; PRNT-127; PRNT-131; PRNT-134; PRNT-142; PRNT-145	Intro to Printing; Intro to Computers; Text and Type; Intro to Page Layout; Elect. Image Capture; Image Reproduction; Sheefed Presses; Graphics Creation; Intro to Photoshop; Safety/Env. Issues	B	17

KEY		
ACI – AccuTech Career Institute	FCC – Frederick Community College	MSM – Mt. St. Mary's University
AIW – Art Institute of Washington	HBC – Hagerstown Business College	UTI – Universal Technical Institute
CCBC – Community College of Baltimore County	JWU – Johnson & Wales University	WVUT – West Virginia University Institute of Technology
CDIA – Center for Digital Arts at Boston University	MC – Montgomery College	

## CONTACT INFORMATION FOR FCPS AND PARTNER COLLEGES



<p><b>FCPS – FREDERICK COUNTY PUBLIC SCHOOLS</b>                  Charlene Bonham                  Supervisor, Career and Technology Education                  7630 Hayward Road                  Frederick, MD 21702                  www.fcps.org                  Phone – 301-644-5182 Fax – 301-644-5119                  Email: charlene.bonham@fcps.org</p>	<p><b>ACI – AccuTECH CAREER INSTITUTE</b>                  5310 Spectrum Drive                  Frederick, MD 21703                  www.accutechtraining.com                  Phone – 800-434-0160 or 301-694-0211                  Fax – 301-696-0421</p>	<p><b>AIW – ART INSTITUTE OF WASHINGTON</b>                  Education Department                  1820 North Fort Myer Drive                  Arlington, VA 22209-1802                  www.aiw.artinstitutes.edu                  Phone – 877-303-3771 Fax – 703-358-9759</p>
<p><b>CCBC – COMMUNITY COLLEGE OF BALTIMORE COUNTY, CATONSVILLE CAMPUS</b>                  Admissions Office                  800 South Rolling Road                  Catonsville, MD 21228-5381                  Admissions Office:                  Phone – 410-455-6050 Fax – 410-869-1106</p>	<p><b>CDIA – CENTER FOR DIGITAL ARTS AT BOSTON UNIVERSITY</b>                  William Chenaille                  Director of Outreach                  CDIA at Boston University                  282 Moody Street                  Waltham, MA 02453                  781-209-1700</p>	<p><b>FCC – FREDERICK COMMUNITY COLLEGE</b>                  Registration Office                  7932 Opossumtown Pike                  Frederick, MD 21702                  www.frederick.edu                  To find out about the required orientation for freshmen and to plan your schedule, contact the:                  Counseling Office – 301-846-2471                  Registration Office – 301-846-2433                  FAX – 301-846-2498                  ATTN: Counseling Office</p>
<p><b>HBC – HAGERSTOWN BUSINESS COLLEGE</b>                  Registrar’s Office                  18618 Crestwood Drive                  Hagerstown, MD 21742                  www.hagerstownbusinesscol.org                  Registrar’s Office:                  Phone – 800-422-2670 X134                  Fax – 301-791-7661</p>	<p><b>JWU – JOHNSON &amp; WALES UNIVERSITY</b>                  Transfer Academic Admin. &amp; University Testing                  8 Abbott Park Place                  Providence, RI 02903                  www.jwu.edu                  Phone – 401-598-1841 Fax – 401-598-2837</p>	<p><b>MONTGOMERY COLLEGE</b>                  Fred Howell, Program Director                  Montgomery College                  Gudelsky Institute for Technical Education                  51 Mannakee Street                  Rockville, Maryland 20850                  General Phone Number: 240-567-7530                  frederick.howell@montgomerycollege.edu</p>
<p><b>Mt. St. MARY’S UNIVERSITY</b>                  William G. Forgang, Ph.D.                  Chair, Department of Business, Accounting, and Economics                  Mt. St. Mary’s University                  Emmitsburg, Maryland 21727                  Phone: 301-447-5326                  wforgang@msmary.edu</p>	<p><b>UTI – UNIVERSAL TECHNICAL INSTITUTE</b>                  750 Pennsylvania Drive                  Exton, PA 19341                  www.uti-auto-tech.com                  Phone – 877-303-3771 Fax – 703-358-9759</p>	<p><b>WVUT – WEST VIRGINIA UNIVERSITY INSTITUTE OF TECHNOLOGY</b>                  Jack Nuckols                  Department Chair                  Printing Department                  Montgomery, WV 25136                  Phone – 304-442-3172                  jnuckols@wvuttech.edu</p>

# FREDERICK COUNTY PUBLIC SCHOOLS

## FAST FORWARD PROGRAM

### *APPLICATION FORM*

**DIRECTIONS:**

1. You must complete and receive the specified grade listed in the Fast Forward agreement.
2. You must have this Fast Forward Application Form completed and bring it with you to the Registrar at the appropriate partner college. Remember to take a copy of your official high school transcript when you apply for Fast Forward credit.
3. You must enroll at one of the partner colleges within two years of high school graduation, with the exception of Hagerstown Business College where you have three years to enroll for these agreements to be valid.

TO: \_\_\_\_\_  
*Name of College*

FROM: \_\_\_\_\_  
*Name of Student*

RE: **Fast Forward Certification**

**Career Pathway: *Check One***

- Arts & Communications**
- Business Management Systems**
- Health Services**
- Human Services**
- Industrial Engineering & Technology**
- Natural Resources & Agriculture**

I am applying for college credit earned while in high school.

This is to certify that I, \_\_\_\_\_, graduated in \_\_\_\_\_ of \_\_\_\_\_, and  
*Full Name of Student* *Month* *Year*

have successfully completed the following course(s) based upon the articulation agreement between Frederick County Public Schools and

\_\_\_\_\_  
*Name of Fast Forward Partner College*

High School Course Title	Grade	College Course #	Course Name	Credit
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

I agree that the above is correct and accurate.

**Student's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

*(Print out this form, sign your name and the date, and take the form, along with an official copy of your transcript, to the Registrar of the appropriate partner college.)*

ATTENTION PARTNER COLLEGE – Please keep these Fast Forward Applications for reporting enrollment data to FCPS:  
 Charlene Bonham Phone 301-644-5182  
 7630 Hayward Road Fax 301-644-5119  
 Frederick, MD 21702 Email: charlene.bonham@fcps.org

# Education and Career Plan

Name: \_\_\_\_\_

## High School Career Development Activities Inventory

CAREER DEVELOPMENT	9th Grade	10th Grade	11th Grade	12th Grade
<input type="checkbox"/> Reviewed Personal Education and Career Plan	_____	_____	_____	_____
<input type="checkbox"/> Career Pathway Choice	_____	_____	_____	_____
Reviewed by: _____				Date: _____

	GPA	Attendance
Grade 9	_____	_____
Grade 10	_____	_____
Grade 11	_____	_____
Grade 12	_____	_____
Cumulative GPA	_____	_____

INVENTORIES/ASSESSMENTS	Date(s)	Result(s)
<input type="checkbox"/> ExPAN	_____	_____
<input type="checkbox"/> ACT Plan	_____	_____
<input type="checkbox"/> ASVAB	_____	_____
<input type="checkbox"/> Bridges	_____	_____
<input type="checkbox"/> Leadership Inventory	_____	_____
<input type="checkbox"/> Other _____	_____	_____

ACTIVITIES School Year/Summer	9th Grade	10th Grade	11th Grade	12th Grade
<input type="checkbox"/> Clubs/Organizations (list offices held, if any)	_____	_____	_____	_____
<input type="checkbox"/> Leadership Experiences	_____	_____	_____	_____
<input type="checkbox"/> Extra-curricular Activities (fine arts, athletics, etc.)	_____	_____	_____	_____
<input type="checkbox"/> Student Service Learning	_____	_____	_____	_____
<input type="checkbox"/> Other	_____	_____	_____	_____

CAREER PATHWAY	WORK EXPERIENCES/TYPE OF WORK/LOCATION	DATES
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

# Education and Career Plan

Name: \_\_\_\_\_

## Post-High School Career Development Activities Inventory

### POST-HIGH SCHOOL PLANS

### GRADES 9 10 11 12 INTEND TO:

Notes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Attend a 4 year college
- Attend a 2 year college
- Attend a technical/business/career school
- Enter the military
- Seek full-time employment
- Enter an apprenticeship program
- Other \_\_\_\_\_

Experience Log	Date	Place/Name	Person	Career/School
• Took career-related field trips				
• Heard career speakers				
• Participated in career days/programs				
• Visited with college/school representatives				
• Used resources for career/college information				
• Prepared a resumé				
• Made application to Career and Technology Center				
• Shadowed/observed workers				
• Experienced/conducted interviews <i>(simulated/actual)</i>				
• Completed applications to post-secondary institutions <i>(simulated/actual)</i>				
• Completed job applications <i>(simulated/actual)</i>				
• Applied for financial aid				
• Submitted scholarship applications				
• Requested transcripts for employment/school applications				

### REFERENCE'S NAME

### TITLE

### ADDRESS & PHONE NUMBER

\_\_\_\_\_

# TERMS TO KNOW

**Career Academy** – Typically a school-within-a-school that offers student learning experiences organized around broad career themes. Often integrating classroom instruction with work-based learning, academies try to equip students with the necessary skills for both the workforce entry and post-secondary admission.

**Career Development** – The lifelong process by which students become aware of career opportunities, explore careers, and experience workplace opportunities to determine their career paths. It means making purposeful connections throughout school and community to what is being learned and how it relates to a career.

**Career Pathway** – A group of occupations/careers that requires similar interests, skills and abilities.

**Career Pathway Focus** – A selection of academic and technical electives, including a transition experience, that prepares a student for a chosen career area, regardless of the training or post-secondary education required to do so.

**Career Planning Tool** – A guide to assist students in making decisions about their future educational and career choices. It is to be used concurrently with the Course Offering Guide.

**Certification** – Local, state or national level of completion and mastery in specific areas of expertise and ranges of job skills. Industry recognition of your knowledge and proficiency in the various career areas is based on the candidate passing official certification tests.

**Fast Forward** – A program by which students can earn college credits for mastering certain high school courses, once they enroll in the partnering college. A Fast Forward booklet with details about the program and the qualifying courses and college partners.

**Graduation Project** – An interdisciplinary, culminating project which is designed to showcase students' individual interests and talents, to enhance life long learning skills, and to assist students to think critically in order to solve real-world problems. It is strongly recommended that this project is connected to a student's career pathway.

**Interest Inventory** – An individual assessment of interests, skills and abilities. Student scores relate to specific career areas to be explored.

**Job Shadowing** – Typically part of career exploration activities in late middle and early high school. A student follows an employee at the worksite for one or more days to learn about a particular career area.

**Personal Education and Career Plan** – A worksheet on which to plan course selections for high school and identify post-secondary intentions in a chosen career pathway. It is intended to be reviewed and revised annually.

**Post-secondary Education** – Further training and preparation at community colleges, four-year colleges and universities, technical training centers, and through apprenticeships, on-the-job training and the military.

**\*Transition Experiences** – Activities at the high school level that involve actual work experience(s) which connect classroom learning to a chosen pathway. Students may request the following transitional experiences, coordinated at the school level:

**Cooperative Work Study** – A paid work experience that generally lasts an entire school year. Students earn one credit per block per semester (usually 4 credits).

**Marketing Education** – A paid work experience for 12th-grade Marketing students in the area of wholesaling, retailing, advertising, and promotion. Students earn one credit per block per semester.

**Mentor/Internship** – A paid or unpaid work experience in which the student is assigned to a work-site mentor in a professional placement. It is usually one semester. Students earn one credit per block per semester (usually 2 credits).

**Pre-Apprenticeship** – Full day, paid work experience for Career and Technology Education students in state-certified apprenticeship programs. It is usually for one semester after successful completion of cooperative work study for a semester. Students earn one credit per block per semester (usually 2 credits, in addition to the work study credits).

**Student Service Learning** – An unpaid volunteer work experience in a non-profit agency or charitable organization. It is usually for one semester, with some students choosing to remain at the same service site for both semesters. Students earn one credit per block per semester (usually 2 credits).

**Temporary Administrative Attendance Waiver (Post-secondary Enrollment)** – Enrollment in one or more post-secondary courses at a college campus. Students earn no credit from Frederick County Public Schools, but college credits are awarded after successful completion.

**Transitional Employment Program (IEP)** – A work experience for 11th and 12th grade students with an Individualized Education Plan (IEP). Students earn one credit per block per semester.

**Work-Based Learning** – Activities at the high school level that involve actual work experience and connect classroom learning to work in a chosen career pathway.

**Work-Site Mentor** – An employee at a workplace who is assigned to a student intern. A mentor is responsible for challenging the student to meet certain outcomes, and also works in consultation with school personnel and classroom teachers to help the student prepare for his/her career goals.







## **Frederick County Public Schools**

*The Frederick County Public Schools do not discriminate in admissions, access, treatment, or employment in its programs and activities on the basis of race, color, gender, age, national origin, religion, sexual orientation, or disability. For more information, call the Executive Director of Legal Services, 301-696-6851.*