FREEPORT HIGH SCHOOL

# PATHWAYS SUPPLEMENTAL BROCHURE





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# INTRODUCTION AND DEFINITIONS

Freeport High School uses the following nationally recognized terms to help guide students through the selection of coursework and to support their decision-making in preparation for their postsecondary goals.

**Career Cluster:** Group of occupations and industries that have a set of foundational knowledge and skills in common. There are 16 nationally recognized career clusters which each contain multiple career pathways.

**Career Pathway:** Multiyear program of academic and technical study that prepares students for a full range of postsecondary options within each career cluster. Career pathways provide a context for exploring career options at all levels of education. Career pathways link student learning to the knowledge and skills needed for future education and employment.

**Program of Study:** Sequence of courses and experiences which include core academic, career and technical education content. Programs of study include opportunities to earn college credit and industry-recognized credentials or certificates and gain external career experiences while in high school. Programs of study also may lead to a student earning a college degree.

## Within each Freeport High School Program of Study the following terms are used to describe coursework and opportunities which align with that career area.

**Pathway Courses:** recommended sequence of courses which provide students opportunities to explore and develop skills within a specified career area.

**Related Electives:** courses which provide students additional opportunities within the specified career area or opportunities to develop skills and knowledge in a closely related career area.

**Dual Enrollment Credit:** allows Freeport High School students an opportunity to enroll in postsecondary courses and receive both high school and postsecondary credit.

**Career-Related Activities:** opportunities for student career exploration and/or career skill development which may include the involvement of industry partners. These opportunities are generally less formal and/or intensive than external experiences in the areas of career exploration and/or career skill development.

**Certifications:** credentials awarded to students by an independent third party verifying qualifications or competencies in a career skill area. Industry-recognized certifications are sought or accepted by employers as recognized, preferred or required credentials for recruitment, screening, hiring, retention or advancement purposes of their employees.

**College Majors:** College majors are concentrations of educational study focused on a career area. College majors can lead to an associate's, bachelor's, master's or doctoral degree. In this document, a sample of majors related to each program of study is listed.

**Careers:** Careers are occupations which usually require special training or formal education. In this document, a sample of careers related to each program of study is listed.

## FREEPORT HIGH SCHOOL TOMORROW'S LEADERS LEARNING TODAY

**MISSION** The primary purpose of our school system is to teach all children how to learn and to foster in each child the desire for lifelong learning. We are committed to providing the means for intellectual, emotional, ethical, social and physical growth for cultural and ethnic diversity, which will assist every individual in becoming an informed and productive participant in our democratic society.

#### VALUES

#### 1. HONESTY/INTEGRITY:

• To be truthful, to distinguish between right and wrong, and to choose to do what is right.

#### 2. RESPECT:

• To show regard for self, others, the environment, property and government laws.

#### 3. COURTESY:

• To display appropriate behavior that shows consideration for others.

#### 4. SELF-DISCIPLINE:

• To display effective and appropriate control of oneself and one's conduct and persevere in the pursuit of selfimprovement.

#### 5. COMPASSION:

• To be sympathetic and understanding of the needs and feelings of others – the ability and desire to care.

#### 6. TOLERANCE:

• To have a fair and objective attitude toward those whose ideas, race or creed is different from our own.

#### 7. LOVE OF LEARNING:

• To have intellectual curiosity.

#### 8. RESPECT FOR EDUCATION:

• To have regard for the worth of the learning environment and the resources needed to develop each human being to his/ her potential.

#### 9. RESPONSIBILITY:

• To demonstrate personal accountability and work to the best of one's ability; to respond to the needs of others.

#### **10. SERVICE:**

• To provide service to the community.

## A MESSAGE FROM YOUR SUPERINTENDENT

Dear Freeport High School Student:

On behalf of the faculty, staff and administration of Freeport High School, congratulations on starting your Pathway toward career success. Throughout your time as a Freeport student, you will be engaged in and participate in many experiences and opportunities which will simultaneously prepare you to graduate high school, be successful in college or postsecondary training and to attain employment in a career field which matches your strengths, abilities and aspirations.

Looking at high school as a time in your life when you take classes with an end goal of a diploma is a thing of the past; instead, Freeport High School is the beginning of your Pathway to all you dream of and hope to achieve. Through career exploration and research, you will identify your interests. Matching these interests with your schedule of required and elective courses, you will take classes which have meaning and value to you as a learner. Within these classes, you will explore careers which allow you to take your interests and strengths into the workforce and the many employment opportunities within that field. You will learn of the training and education which will allow you access to each level of that career field, from entry level with a diploma to top-level positions requiring advanced training and higher education.

Within your selected Pathway of study, you will be part of experiences that deepen your understanding of related career fields. Engaging with prospective employers and successful employees, visiting sites which align with career fields, and participating in distance-learning activities to further enhance your understanding of potential career fields, will all be part of your Pathway experience.

Connecting with institutes of higher education which can continue your education within your selected Pathway will be common throughout your time at Freeport High School. Whether it is through enrollment in one of over 20 dual enrollment courses, Advanced Placement courses, college-credit grant programs, or through campus tours and fairs, college will not be a foreign and frightening place come graduation. Our hope is that you will accumulate up to 24 college credits, almost a full year, even before you earn your diploma from Freeport High School.

Taking advantage of the countless professionals invested in your success and your future throughout your time at Freeport High School is a choice you alone must make. We are all there to support you, but you must take the first step. Imagine yourself on stage at graduation, knowing the exact steps you need to follow after high school to reach the goals in life you have imagined for the past four, five, possibly even 10 or more years. This is no longer a thing of dreams; at Freeport High School, this is now your reality. Carefully and consciously navigating your Pathway is how you achieve it. We will all meet you at the door to assist you along on the journey.

Welcome to Freeport High School, the Pathway to your success.

Dr. Kishore Kuncham

Superintendent of Schools

# THE PURPOSE OF A PATHWAYS MODEL

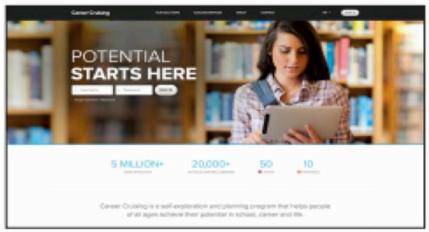
Your guidance counselor will be your Pathways guide throughout your time at Freeport High School. In addition to the required courses you will take, you will have the opportunity to select elective courses which align to your identified interests, strengths and potential career path.

In your ninth-grade year, you will partake in a career exploration experience which will allow you to discover which career fields and jobs your interests and strengths would fit well within. You will have the opportunity to research jobs and career fields of your choosing, as well as engage in many lessons in each of your courses focused on career exploration. You will also attend freshman seminars designed to increase your awareness of postsecondary and employment options and requirements, hear from community members as they discuss how they arrived at their respective career levels and dialogue with local employers to hear what they look for in their future workforce. When it comes time for you to schedule your classes for your 10th-grade year, you will be prepared to identify a pathway of interest which will influence your future decisions at Freeport High School.

As a 10th-, 11th-, and 12th-grader, you will have a direction and purpose to selecting the courses you enroll in, the extracurricular activities and clubs you participate in, and have many opportunities to prepare yourself for the college coursework and career field you plan to pursue after graduation.

## Helpful Internet Tools for Finding a Career Pathway





Career Cruising is an Internetbased career exploration and planning tool used by students to explore career and college options and develop a career plan. Features of the program include: Assessments, Career Profiles, Multimedia Interviews and College/University and Apprenticeship Information.

www.careercruising.com

## HOW TO USE THE FREEPORT HIGH SCHOOL PATHWAYS SUPPLEMENTAL CATALOG

The Pathways Supplemental Catalog should be used alongside the Freeport High School Program Offerings catalog when planning your schedule each year. As you have the opportunity to plan your schedule, consider the career fields your Holland Code assessment indicated fit your strengths and interests, and discuss the elective options with your guidance counselor. Also in the catalog are extracurricular activities which align to those pathways to further enhance your experiences within that pathway. Together with the course catalog, you will be able to design a sequence of study that meets your needs and goals as a Freeport High School student, future collegian and future member of the work force.

You will also find "career guides" which showcase some of the in-demand career professions within each pathway. These guides identify the education and training required for various levels within that profession, and the starting salaries one can expect based on those levels. They also highlight the FHS courses and clubs most aligned to those careers.



Naviance is a college and career readiness platform that helps connect academic achievement to post-secondary goals. It also allows students to create a plan for their futures by helping them discover their individual strengths and learning styles and explore college and career options based on their results.

www.naviance.com

Student can set up their own Career Cruising and Naviance accounts. Please see your counselor or career advisor for more information.

## **RECOMMENDED PROGRAM FOR COLLEGE AND CAREER SUCCESS**

9th GRADE	10th GRADE	11th GRADE	12th GRADE
English 9 H/R	English 10 H/R	English 11 R/H AP English Language	English 12 AP English Literature Survey Western World Literature
Global History 9R World History 9H	Global History 10R AP World History AP Human Geography	US History R/H AP US History AP Capstone Seminar AP Psychology AP European History AP Human Geography	Participation in Government Economics H/R AP American Government AP Psychology AP Comparative Government
CC Algebra CC Geometry H/R Algebra II H/R CC	CC Geometry H/R CC Algebra II H/R Pre-Calculus Calculus AP Computer Science Principles	CC Algebra II H/R Pre-Calculus AP Calculus A/B AP Statistics AP Computer Science Principles	Pre-Calculus Calculus AP Calculus A/B AP Calculus B/C AP Statistics
Living Environment Regents Living Environment Honors	Earth Science R Chemistry Honors	Chemistry R AP Environmental Science AP Biology AP Chemistry AP Physics	Physics R AP Biology AP Chemistry AP Physics AP Physics C AP Environmental Science
Foreign Lang 2R/H	Foreign Lang 3R/H	Foreign Lang 4R/H AP Spanish Language AP French Language	Foreign Lang 5R AP Spanish Language AP Spanish Literature AP French Language
Studio Art Creative Crafts Advertising & Media 1 Beginner Fashion Music in Our Lives Chorus Band Freshmen Orchestra	Studio Art Drawing & Painting Creative Crafts Advertising & Media 1 Beginner Fashion Music in Our Lives Chorus Band Orchestra AP Art History	Health Elective AP Music Theory Honors by Audition: Wind Ensemble, Sinfonietta, Select Chorale Drawing and Painting Advertising & Media 2 Intermediate Fashion AP Art History	Elective AP Art History AP Music Theory Honors by Audition: Wind Ensemble, Sinfonietta, Select Chorale Advanced Drawing and Painting H Portfolio Prep H Advanced Fashion
Writers' Workshop	Elective	Elective	Elective
P.E.	P.E.	P.E.	P.E.

## **RECOMMENDED PROGRAM FOR COLLEGE AND CAREER SUCCESS**

#### **COURSE LEVELS**

**AP** - Advanced Placement – Advanced Placement courses are designed with a specific focus on a college level approach to content, culminating in the Advanced Placement exam. AP courses specifically challenge high school students to become college students; mastery of curriculum and development of critical thinking skills enable learners to become truly articulate in a specific subject and to successfully take the Advanced Placement exam and, ultimately receive college credit.

**DE-** Dual Enrollment –allows high school students an opportunity to enroll in postsecondary courses and receive both high school and postsecondary credit.

H - Honors – Honor level courses are designed to enrich the student by offering an enhanced curriculum in each subject area, with particular attention to developing higher order thinking skills and sophisticated understanding of course material. They invite not only knowledge, but also insight and expertise for students accepting the challenge of the Honors curriculum.

**R** - Regents – core high school subjects required for a Regents Diploma to graduate.

\*Course offerings may be subject to change based on the discretion of Freeport Public Schools. It may not be possible to offer all of the courses listed if student enrollment is too low to run a course or due to financial considerations.

#### **English Electives**

Creative Writing 1 and 2 Journalism 1 and 2

Introduction to Theatre Arts

**English SAT** 

#### **Social Studies Electives**

AP Human Geography	Capstone Research
AP Comparative Government and Politics	Advanced Placement Psychology
Human Relations	Criminal and Civil Justice
Psychology	History Through Music
Advanced Placement	History Through Film
European History	Sociology
Advanced Placement	Genocide
Capstone Seminar	Gender Relations
Advanced Placement	

#### **Science Electives**

Oceanography Forensics Science Research Marine Biology

#### **Math Electives**

**Business Math** AP Computer Science Principles **Contemporary Math** 

Math SAT **Advanced Placement Statistics** 

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# Accounting

Accounting is the process of recording financial transactions pertaining to a business.

The accounting process includes summarizing, analyzing and reporting these transactions to oversight agencies, regulators and tax collection entities.

# ACCOUNTING

### Accounting

#### **Pathway Courses**

- Year 1 Computerized Keyboarding/Career and Financial Management
- Year 2 Virtual Enterprise
- Year 3 Accounting 1
- Year 4 Accounting 2/Computer Applications for College/Research and the Workplace

#### **Career Related Activities**

Distributive Education Clubs of America (DECA) Future Problem Solvers Odyssey of the Mind Student Government

#### **Dual Enrollment Credit**

Business Law Accounting

#### Certifications

Certified Public Accountant (CPA) Certified Financial Analyst (CFA) Certified Management Accountant (CMA) Enrolled Agent (EA) Certified Financial Services Auditor (CFSA) Certified Internal Auditor (CIA) Certified Fraud Examiner (CFE) Certified Information Systems Auditor (CISA)

#### **College Majors**

Accounting Accounting Technology/Technician and Bookkeeping Finance Business Management Auditing Economics

#### Careers

Certified Public Accountant Forensic Accounting Public Accounting Management Accounting Financial Accounting Government Accounting Auditing Accounting Manager Bookkeeper Budget Analysis

**Related Electives** 

Business and Personal Law AP Calculus AB AP Calculus BC AP Statistics AP Computer Science Principles

> Compliance Officer Financial Analyst Financial Planner Tax Accountant Payroll Accountant

# Requirements for CTE Endorsement:

- The Microsoft Office Specialist exams in Word, PowerPoint, and Excel were chosen as the written and performance assessment
- Locally Created Portfolio
- Work Based Learning Experiences such as; Field Trips, Site Visits, Internships,

Apprentice Opportunities, Job Shadowing and Employment Opportunities

# Agriculture, Food and Natural Resources

The production, processing, marketing, distribution, financing and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture and other plant and animal products/resources.

### Pathways/Programs of Study

- Environmental Science Systems
- Green

## AGRICULTURE, FOOD AND NATURAL RESOURCES

### **Environmental Science System**

#### **Pathway Courses**

Year 1 - Living Environment Year 2 - Chemistry Year 3 - Physics Year 4 - AP Environmental Science

#### **Related Electives**

AP Statistics AP Biology AP Chemistry AP Physics AP Physics C Authentic Science Research Forensics Virtual Enterprise

#### **Career Related Activities**

Health Occupation (HOSA) Science Olympiad WFHS Communications AIDS Awareness Group High School Heroes

#### **Dual Enrollment Credit**

Virtual Enterprise

#### **College Majors**

Environmental Control Technologies/Technicians Environmental Engineering Technology/ Environmental Technology Natural Hazardous Materials Management Water Quality and Wastewater Treatment Management and Recycling Technology/Technician

#### Careers

Environmental Engineering Technician Hazardous Materials Removal Worker Occupational Health and Safety Specialist Refrigeration Mechanic and Installer Arborist Environmental Specialist Restoration Specialist System Ecologist Wildlife Manager Water and Wastewater Treatment Plant and System Operator

## AGRICULTURE, FOOD AND NATURAL RESOURCES

#### Green

#### **Pathway Courses**

Year 1 - Living Environment Year 2 - Earth Science Year 3 - Chemistry Year 4 - AP Environmental Science

#### **Related Electives**

AP Calculus AB		
AP Calculus BC		
AP Biology		
AP Chemistry		
AP Physics		
AP Physics C		
AP Statistics		
Virtual Enterprise		

#### **Career Related Activities**

#### DECA Flashings Mock Trial Robotics Science Club/Science Olympiad Student Government High School Heroes

#### **Dual Enrollment Credit**

Virtual Enterprise

#### Certifications

Food Handler National Restaurant Association ProStart Certificate of Achievement

#### **College Majors**

Agricultural and Food Products Processing Agricultural Business and Management Agricultural Business Technology Agricultural/Farm Supplies Retailing and Wholesaling Food Science Food Technology and Processing

#### Careers

Agricultural and Food Science Technician Agricultural Technician **Robotics Technicians** Industrial Engineering Technologists Investment Underwriters **Regulatory Affairs Specialists** Solar Energy Installation Managers **Energy Auditors Environmental Restoration Planners** Logistics Engineers **Transportation Planners Geospatial Information Scientists Commodities Traders** Solar Sales Representatives **Transportation Engineers Fuel Cell Engineers** Water Engineers **Remote Sensing Scientists** Logistics Managers **Energy Managers Environmental Economists** Green Marketers Wind Energy Project Managers Gas Collection System Operators Water Resource Specialists **Biofuels Product Development Managers Chief Sustainability Officers** Chemical Technician Food Science Technicians or Technologist Farm and Ranch Manager

# Architecture

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# and Construction

Designing, planning, managing, building and maintaining the built environment.

## Pathways/Programs of Study

- Construction: Building Trades
- Design/Pre-Construction: Architecture

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# ARCHITECTURE AND CONSTRUCTION

#### Construction

#### **Building Trades**

#### **Pathway Courses**

- Year 1 Production Systems Computer Aided Design (CAD)
- Year 2 Design and Drawing for Production
- Year 3 Electrical Engineering
- Year 4 Industrial Drafting

#### **Career Related Activities**

Stage Crew Graphic Design Robotics Skills USA

#### **Dual Enrollment Credit**

Photo 1 Digital Photography Animation Auto Mechanics 1 Auto Mechanics 2

#### Certifications

WCA Machine Operation Level I: Table Saw WCA Machine Operation Level I: Band Saw WCA Machine Operation Level I: Lathe WCA Machine Operation Level I: Jointer WCA Machine Operation Level I: Radial Arm Saw WCA Machine Operation Level I: Planer WCA Machine Operation Level I: Drill Press WCA Machine Operation Level I: CNC Router

#### **Related Electives**

Basic Electronics Production Systems Computer Graphics Video Game Design Industrial Drafting 1-3 Photo 1 Digital Photography Auto Mechanics 1 and 2 Animation Fundamentals of Technology Technological Design Landscape Design/Drafting

#### **College Majors**

Building/Construction Management Construction Engineering Technology Energy Management and Systems Technology Heating, Air Conditioning and Refrigeration Technology

#### Careers

Architectural Engineering Technician Building/Construction Finishing, Management and Inspection Civil Engineering Technology/Technician Construction Engineering Technology/Technician Drafting CAD/CADD Electrician Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technician Carpenter Plumber

# ARCHITECTURE AND CONSTRUCTION

### **Design/Preconstruction**

#### Architecture

#### **Pathway Courses**

**Year 1 -** Design and Drawing for Production/Fundamentals of Technology (FOT)

Year 2 - Industrial Drafting 1/ Technological Design

Year 3 - Industrial Drafting 2/ Computer Aided Design (CAD)

Year 4 - Industrial Drafting 3

#### **Related Electives**

Basic Electronics Production Systems Computer Graphics Video Game Design Industrial Drafting 1-3 Photo 1 Digital Photography Auto Mechanics 1 and 2 Animation Landscape Design/Drafting Electrical Engineering

#### **Career Related Activities**

Stage Crew Graphic Design Robotics Skills USA

#### **Dual Enrollment Credit**

Photo 1 Digital Photography Animation Auto Mechanic 1 Auto Mechanic 2

#### Certifications

AutoCAD Designer Revit Architectural Designer

#### **College Majors**

Architectural Drafting Architectural Engineering Architecture CAD/CADD Drafting Technician Civil Drafting and Civil Engineering Drafting/Design Engineering Technicians Electrical/Electronic Drafting Electrical/Electronic CAD/CADD Environmental Design/Architecture Mechanical Drafting CAD/CADD

#### Careers

Architects Civil Draftsman Civil Engineering Technician Electrical and Electronics Draftsman Engineering Technician Interior Designer Landscape Architect Mechanical Draftsman Operations Research Analyst

# Drafting and Design Technology/Technician

Drafting and Design Technology is an instructional program that generally prepares individuals to apply technical knowledge and skills as each relates to gathering and translating of data or specifications including basic aspects of planning, preparing and interpreting mechanical, architectural, structural, civil, electrical/electronic, topographical and other drawings and sketches used in various engineering fields.

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## DRAFTING AND DESIGN TECHNOLOGY/TECHNICIAN

This program allows for a Career and Technical Endorsement and Dual Enrollment credit.

#### Drafting and Design Technology/ Technician

#### Pathway Courses

Year 1 - Career and Financial Management

- Year 2 Design and Drawing
- Year 3 Technical Drafting/Computer Aided Design (CAD)

#### Year 4 - Industrial Drafting 1

#### **Career Related Activities**

Robotics Skills USA

#### **Dual Enrollment Credit**

Introduction to Computer Graphics Photo 1 Digital Photography Animation

#### Certifications

Apprentice: Architectural & Mechanical Certified Drafter Certified Design Drafter Certified Digital Designer CAD Drafting Design Drafting

#### **College Majors**

Architecture Civil Engineering Construction Technology Engineering Technology Industrial and Product Design Mechanical Engineering Surveying Drafting Technology Landscape Design

#### Careers

Architects Civil Engineering Technicians Electrical and Electronics Engineering Technicians Electrical and Electronics Engineers Industrial Designers Landscape Architects Mechanical Engineering Technicians Mechanical Engineers

#### **Related Electives**

Industrial Drafting 2 Industrial Drafting 3 Introduction to Computer Graphics Production Systems Landscape Design/Drafting

### Requirements for CTE Endorsement:

- Required Exams: NOCTI 4983 CAD
   Assessment
- Locally Created Portfolio
- Internships and Job Shadowing Experiences

# Arts, A/V Technology and Communications

Designing, producing, exhibiting, performing, writing and publishing multimedia content including visual and performing arts and design, journalism and entertainment services.

## Pathways/Programs of Study

- English Language Arts
- Visual Arts: Digital Art
- Visual Arts: STEAM
- Performing Arts: Band
- Performing Arts: Choir
- Performing Arts: Orchestra

### **English Language Arts**

#### **Technical and Business Writing**

#### **Pathway Courses**

- Year 1 English 9
- Year 2 English 10
- Year 3 English 11/AP English Language
- Year 4 English 12/AP English Literature

#### **Related Electives**

Creative Writing I Creative Writing II Journalism I Journalism II Survey of Western Literature

#### **Career Related Activities**

DECA Flashings Graphic Designs Vintage High School Heroes Homework Helpers Chapter Chats Book Club Mock Trial Peer Tutor

#### Careers

Desktop Publishers Copywriters (Writers and Authors) Technical Writers Journalist Science Writer Grant Writer Teacher

### **College Majors**

English Journalism Communications Graphic Communications Graphic Arts Graphic Design

#### Visual Art Digital Art

#### **Pathway Courses**

Year 1 • Advertising Design 1 Year 2 • Advertising Design 2 Year 3 • Computer Graphics Year 4 • Portfolio in Art

#### **Related Electives**

Studio in Art Drawing and Painting Advanced Drawing and Painting AP Art History Web Page Design Animation Computer Applications for College and Workplace Photo 1 Digital Photography

#### **Career Related Activities**

Art/Fashion Graphic Designs Stage Crew WFHS Communications Theatre Set Design

#### **Dual Enrollment Credit**

Animation Photo 1 Digital Photography

#### **College Majors**

Art Education Fine Arts Graphic Design Web Design Photography Animation Video Arts Game Design Toy Design

#### Careers

Educator Art Director Artist: Fine Artists, Illustrator, Packaging Designer Photographer: Digital, Still, Video, Film Computer Animator Curator and Gallery Manager Desktop Publishing Specialists Graphic Equipment Operator Web Page Designer Interior Designer Special Effects Artist

### Visual Art-STEAM

#### Pathway Courses

Year 1 • Studio in Art Year 2 • Drawing and Painting

Year 3 - Advanced Drawing and Painting

Year 4 - Portfolio in Art

#### **Related Electives**

Creative Crafts Photo 1 Digital Photography Web Page Design Fundamentals of Technology Technological Design Industrial Drafting 1, 2 and 3 Web Page Design Animation Advertising Design 1 and 2 Fashion Designer: Beginner, Intermediate and Advanced Principles of Cartooning and Graphic Novel

#### **Career Related Activities**

Robotics Stage Crew WFHS Communications Graphic Designs Art/Fashion

#### **Dual Enrollment Credit**

Animation Photo 1 Digital Photography

#### **College Majors**

Agriculture and Life Sciences Arts and Communication/Social Media Fashion Design Biometric Systems Business+Marketing+Infosystems Comedic Arts Data Science Electronic Business Marketing Game Design Graphic Communication Graphic Design Human-Centered Design and Engineering New Media and Digital Design Packaging Design Robotics Engineering Toy Design Video Arts Web Design Youth and Social Innovation Animation

#### Careers

Application Software Architectural and Civil Drafters Biochemical Engineer Camera/Video Operator Computer Animator Curator Computer Hardware Engineer Data Scientist Desktop Publishing Specialist Developers Digital Designer Electronic Business Marketer **Energy and Environmental Engineer Fashion Designer** Game Designer **Graphic Designer** Graphic Equipment Operator Industrial Design Interaction Designers **Interior Designers** Materials Engineer Product and Packaging Designer **Robotics Engineer** Set Designer Social Media Manager Sound Engineer **Special Effects Artist Unmanned Systems Aircraft Systems** Operator User Experience Designers and Specialist Wind and Energy Engineer

## Performing Arts

Band

#### **Pathway Courses**

- Year 1 Concert Band Year 2 • Concert Band/Wind Ensemble Year 3 • Concert Band/Wind Ensemble
- Year 4 Concert Band/Wind Ensemble

#### **Related Electives**

AP Music Theory History of Music Music in Our Lives Orchestra/Sinfonietta

#### **Career Related Activities**

**Musical Productions** Jazz Band Music Festival Marching Band Color Guard Pep Band Small Ensembles Saxophone Quartet Brass Ensemble Percussion Ensemble Pit Orchestra Small Ensemble Summer Music Camps All-County All-State All-Eastern All-National New York State School Music Association (NYSSMA) Tri-M **Talent Shows** 

#### **College Majors**

Conducting Instrumental Performance Jazz Music Music Composition Music Education Music Therapy Music Theory Studio Production

#### Careers

Composer Conductor Manager: Digital, Video and Stage Musician Music Instructor Performer Performing Arts Educator Sound Designer Sound Engineer

### **Performing Arts**

Choir

#### **Pathway Courses**

- Year 1 Concert Chorus
- Year 2 Concert Chorus/Mixed Chorus/Select Choral
- Year 3 Mixed Chorus/Select Chorale
- Year 4 Mixed Chorus/Select Chorale

#### **Related Electives**

AP Music Theory History of Music Music in Our Lives Orchestra/Sinfonietta Band/Wind Ensemble History of Music

#### **Career Related Activities**

Conducting, Directing, Composing Jazz Band Jazz Band Vocalist Musical Theater Small Ensembles Ninth-Grade Select Chorus **Choral Festivals and Competitions** Music in the Parks Thrills and Thrills Summer Music Camps All-County All-State All-Fastern All-National New York State School Music Association (NYMSSA) Tri-M Talent Shows Brass Ensemble Marching Band Color Guard

#### **College Majors**

Conducting Instrumental Performance Jazz Music Music Composition Music Education Music Therapy Music Theory Studio Production Ethnomusicology

#### Careers

Composer Conductor Manager: Digital, Video and Stage Musician Music Instructor Performer Performing Arts Educator Sound Designer

## **Performing Arts**

Orchestra

#### **Pathway Courses**

- Year 1 Freshmen Orchestra
- Year 2 Orchestra/Sinfonietta
- Year 3 Orchestra/Sinfonietta
- Year 4 Orchestra/Sinfonietta

#### **Related Electives**

AP Music Theory History of Music Music in Our Lives Band/Wind Ensemble

#### **Career Related Activities**

Conducting, Directing, Composing **Musical Productions** Festival Soloist Symphonic Orchestra All-County All-State All-Eastern All-National LISFA Festivals New York State School Music Association (NYMSSA) Pit Orchestra Small Ensembles String Ensembles Summer Music Camps Tri-M Solo and Ensemble

#### **College Majors**

Conducting Instrumental Performance Jazz Music Music Composition Music Education Music Theory Music Therapy

#### Careers

Composer Conductor Manager: Digital, Video and Stage Musician Music Instructor Performer Performing Arts Educator Sound Designer Studio Production Ethnomusicology

# EARN COLLEGE CREDIT



While Attending Freeport High School



## Freeport High School and SUNY Farmingdale State College Dual Enrollment Program

Dual Enrollment is offered to students through a partnership between Freeport High School and SUNY Farmingdale. This program gives students the opportunity to gain college credit while attending Freeport High School. The students must maintain an average of 80 percent to receive college credit. Teachers have been vetted by SUNY Farmingdale to teach the course.

## **DUAL ENROLLMENT COURSE OFFERINGS**

	Global 9 Regents	Genocide	SUMMER COURSE OFFERINGS
	Global 9 Honors	History Through Graphic Novels	
	World History 9 Honors	Gender Relations	Freshmen Experience
	Global 10 Regents	Sociology (offered in the Spring this year)	
	Global 10 Honors	Photo 1	Sociology
	AP World History	Digital Photography	Dublic Dollar
	U.S. History Regents	Accounting	Public Policy
	United States History 11 Honors	Virtual Enterprise	<b>Comparative Religions</b>
	AP U.S. History	Computer Design	comparative nengrons
	Participation in Government	Business Law	The Renaissance
	AP Government	Animation	
	Economics Regents	Auto Mechanics 1	
	Economics Honors	Auto Mechanics 2	
	History Through Film		

# Business Administrative Studies

Planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.

### Pathways/Programs of Study

Business Management and Administration

# **BUSINESS ADMINISTRATIVE STUDIES**

### **Business Administrative Studies**

This program allows for a Career and Technical Endorsement and Dual Enrollment credit.

#### Pathway Courses

- Year 1 Computerized Keyboarding
- Year 2 Career and Financial Management
- Year 3 Virtual Enterprise
- Year 4 Computer Applications for College/Research and the Workplace

#### **Related Electives**

Sports and Entertainment Marketing Business and Personal Law Accounting 1 & 2 Hotel and Restaurant Management Web Page Design Entrepreneurship Desktop Publishing AP Calculus AB AP Calculus BC AP Statistics

#### **Career Related Activities**

Distributive Education Clubs of America (DECA) Art/Fashion Club Graphic Designs High School Heroes Student Council

#### **Dual Enrollment Credit**

Accounting Virtual Enterprise Business Law

#### Certifications

Administrative Assistant/Business Software Specialist Advanced Management Business Analyst Computers in Business Conversational Spanish Electronic Bookkeeping Fundraising for Nonprofits General Management Human Resource Management International Business Lean Six Sigma Green Belt MCSE: SQL Business Intelligence Meeting and Event Planning Office Administrator Professional Communication Project Management Specialist Small Business Management Social Media for Business Supervisory and Leadership Supervisory Skills I and II

### **College Majors**

Accounting Business Administration and Management Business Management/Economics Entrepreneurial and Small Business Operations Human Resources Management Logistics Management Information Systems Management and Supervision Public Relations/Advertising/ Applied Communications

#### Careers

Accountant and Auditor Advertising Manager Computer and Information System Manager Financial Analyst Human Resource Specialist Logistician Market Research Analyst Market Research Specialist Operations Research Analyst Sales Manager Tax Preparer Treasurer and Controller

# Requirements for CTE Endorsement:

- The Microsoft Office Specialist exams in Word PowerPoint, and Excel were chosen as the written and performance assessment
- Locally Created Portfolio
- Work Based Learning Experiences such as; Field Trips, Site Visits, Internships, Apprentice Opportunities, Job Shadowing and Employment Opportunities

# Education and Training

Planning, managing and providing education and training services and related learning support services.

### Pathways/Programs of Study

- Teaching/Training: Early Childhood Education
- Teaching/Training: Primary Education
- Teaching/Training: Secondary Education

# EDUCATION AND TRAINING

### **Teaching/Training**

#### **Pathway Courses**

Year 1 - English 9

Year 2 - English 10

Year 3 - English 11/AP Language

Year 4 - English 12/ AP Literature

#### **Related Electives**

AP Psychology Intro to Theatre Arts Creative Writing I Creative Writing II World Language

#### **Career Related Activities**

Peer Leaders Computer Applications Peer Tutor Robotics Science Club High School Heroes Homework Helpers Peer Buddies Student Technology Aid Student Council

#### Certifications

Teacher Assistant Library Assistant Substitute Teacher

#### **College Majors**

Childhood and Early Childhood Education ESL Education Special Education Library Science

#### Careers

Pre-School Teacher School Teacher Childcare Center Director Home-Based Service Provider Family Support Specialist Consultant Intervention Specialist

# Finance

Planning, services for financial and investment planning, banking, insurance and business financial management.

## Pathways/Programs of Study

Finance

# **FINANCE**

### Finance

#### **Pathway Courses**

Year 1 - Computerized Keyboarding

Year 2 - Career and Financial Management/Web Page Design

Year 3 - Virtual Enterprise/ Accounting 1

Year 4 - Business and Personal Law/ Accounting 2

#### **Related Electives**

Sports and Entertainment Marketing Hotel and Restaurant Management AP Calculus AB AP Calculus BC AP Computer Science AP Statistics

#### **Career Related Activities**

DECA

Art/Fashion Club Graphic Designs High School Heroes Stock Market Game

#### **Dual Enrollment Credit**

Accounting Virtual Enterprise Business Law

#### Certifications

Electronic Bookkeeping Financial Management MCSE: SQL Business Intelligence

#### **College Majors**

Actuarial Science Banking and Financial Support Services Business and Personal/Financial Services Marketing Operations Credit Management Financial Planning Services Insurance International Finance Investments and Securities

#### Careers

Actuary Budget Analyst Credit Analyst Financial Service Insurance Appraiser Insurance Underwriter Loan Officer Sales Agent Securities and Commodities Telemarketer Teller Treasurer and Controller

# Governance and Public Management Administration

Planning and performing government functions at the local, state and federal levels, including governance, national security, foreign service, planning, revenue and taxation and regulations.

# Pathways/Programs of Study

- Governance, Public Management and Administration
- Law
- Foreign Service

# GOVERNANCE AND PUBLIC ADMINISTRATION

# **Governance and Public Administration**

# **Pathway Courses**

Year 1 - Global History9/World History 9H

Year 2 - Global History 10/AP World History

Year 3 - U.S. History/ AP United States History

Year 4 - Participation in Government/Economics/ AP Government

# **Related Electives**

AP Psychology Naval Science (NJROTC) AP Capstone Seminar AP Capstone Research Criminal and Civil Justice

# **Career Related Activities**

Student Government Interact/Rotary Club International Ambassadors German Exchange Mock Trial Peer Leaders

# **Dual Enrollment Credit**

World History 9 Honors AP U.S. History AP Government AP World History AP Capstone Seminar

# Certificates

Conversational Spanish Public Relations

# **College Majors**

American Government and Politics Political Science and Government Public Administration Public Policy Analysis Urban Studies History

# Careers

Administrative Services Manager Emergency Management Director Legislator Political Scientist Reporters Lawyer Paralegal

# GOVERNANCE AND PUBLIC ADMINISTRATION

# Law

# **Pathway Courses**

Year 1 - Global History 9/World History 9H Year 2 - Global History 10/AP World History Year 3 - U.S. History/ AP United States History Year 4 - Participation in Government/Economics/ AP Government

# **Related Electives**

AP Psychology Naval Science (NJROTC) AP Capstone Seminar AP Capstone Research Criminal and Civil Justice

### **Career Related Activities**

Student Government Interact/Rotary Club International Ambassadors German Exchange Mock Trial Peer Leaders

# **Dual Enrollment Credit**

World History 9 AP U.S. History AP Government AP World History AP Capstone Seminar

### Certificates

Conversational Spanish Public Relations Legal Studies Business and Commercial Laws Elder Law International Trade and Finance Tax Law Energy and Environmental Law Public Law

## **College Majors**

American Government and Politics Political Science and Government Public Administration Public Policy Analysis Urban Studies History Legal Studies Criminology Criminal Justice Paralegal Studies

### Careers

Administrative Services Manager Emergency Management Director Legislator Political Scientist Reporters Lawyer Paralegal

# GOVERNANCE AND PUBLIC ADMINISTRATION

# **Foreign Service**

# **Pathway Courses**

- Year 1 Global History 9/World History 9H
- Year 2 Global History 10/AP World History
- Year 3 U.S. History/ AP United States History
- Year 4 Participation in Government/Economics/ AP Government

# **Related Electives**

Naval Science (NJROTC) AP Capstone Seminar AP Psychology AP Capstone Research Criminal Civil Justice Human Relations

# **Career Related Activities**

Student Government Peer Leaders FHS Radio International Ambassadors German Exchange

# **Dual Enrollment Credit**

World History 9 AP U.S. History AP Government AP World History AP Capstone Seminar

# Certificates

Conversational Spanish Public Relations Public Relations for the Web

# **College Majors**

Political Communication Political Science and Government Public Administration Public Policy Analysis

### Careers

Administrative Services Manager Emergency Management Director Legislator Political Scientist Reporter



# FREEPORT HIGH SCHOOL **ADVANCEMENT** PLACEMENT COURSES

Advanced Placement (AP) classes are challenging, college-level classes that students can take at Freeport High School. Students take AP Exams at the end of the course in May, measuring their mastery of college-level work. A score of 3 or higher on an AP Exam can typically earn students college credit and/or placement into advanced courses in college. We encourage you to challenge yourself and ask your guidance counselor about enrolling in AP courses.

The Opportunities to Achieve Are ENDLESS!

#### AP COURSES OFFERED AT FREEPORT HIGH SCHOOL

**English Language English Literature** World History **U.S. History Capstone Seminar** Capstone Research Government **European History** Psychology Biology Chemistry Physics **B** Physics C **Environmental Science** 

**Calculus AB** Calculus BC **Statistics Computer Science Principals Spanish Language Spanish Literature** Art History **Music Theory** Human Geography Comparative **Government and Politics** French Language

#### **AP SCHOLARS AWARDS**

The AP Program recognizes high school students who have demonstrated outstanding college-level achievement through their performance on AP exams. Students can qualify for the following recognition:

SCHOLARS: granted to students who receive grades of 3 or higher on three or more AP exams.

SCHOLAR WITH HONOR: granted to students who receive an average grade of at least 3.25 on all AP exams taken and grades of 3 or higher on four or more of these exams.

SCHOLAR WITH DISTINCTION: granted to students who receive an average grade of at least 3.5 on all AP exams taken and grades of 3 or higher on five or more of these exams.

NATIONAL AP SCHOLAR: granted to students in the United States who receive an average of at least 4 on all AP exams taken and scores of 4 or higher on eight or more. of these exams.

#### **AP CAPSTONE**

The AP Capstone program gives you the chance to develop college-level academic skills and study subjects you love. It also gives you the chance to distinguish yourself to colleges.

This program recognizes high school students who have demonstrated outstanding college-level achievement in AP Seminar, AP Research, and additional AP courses through two awards:

AP Capstone Diploma: granted to students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP exams of their choosing.

AP Seminar and Research Certificate: granted to students who earn scores of 3 or higher in both AP Seminar and AP Research.

- AF Research.
   THERE ARE MANY BENEFITS OF TAKING AP COURSES...
   Students learn rigorous college-level content and skills.
   Taking AP courses is valued in the college admission process.
   Opportunity to earn valuable credit and placement in college.
   85% of selective colleges and universities report that a student's AP experience favorably impacts admission decisions.
   AP courses tell college admission officials that students are challenging themselves and preparing for the rigors they'll encounter in their college careers.
   Taking an AP course helps students build critical thinking skills, confidence and the essential time management and study skills needed for college
  - thinking skills, confidence and the essential time management and study skills needed for college success.

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# **Health Science**

Planning, managing and providing therapeutic services, diagnostic services, health informatics, support services and biotechnology research and development.

MEDICA

Pathways/Programs of Study

Health Science

# HEALTH SCIENCE

# **Health Science**

## **Pathway Courses**

Year 1 - Living Environment

Year 2 - Chemistry

Year 3 - AP Physics

Year 4 - AP Science Elective

# **Related Electives**

AP Biology AP Chemistry AP Physics C AP Psychology AP Statistics AP Environmental Science Authentic Science Research

# **Career Related Activities**

AIDS Awareness Group Health Occupations (HOSA) Science Olympiad WFHS Communications

# Certifications

Dental Assistant Health Skills Medical Assistant Nursing Assistant Personal Trainer and Exercise Medicine Physical Therapy Aide and Rehabilitation Medicine

# **College Majors**

Biology Chemistry Pre-Medicine Nursing Pharmacy Physician's Assistant Physical Therapy

# Careers

Dentist/Dental Technician Dietitian and Nutritionist Emergency Medical Technicians and Paramedic Health Technologists and Technician Nurse/Nursing Assistant Occupational and Physical Therapist Personal Trainer Pharmacist/Pharmacy Technician Physician Assistant Physician/Doctor/Surgeon Therapist







# **Formation Information Technology**Building linkages in IT occup technical and professional c

Building linkages in IT occupations for entry level, technical and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

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Pathways/Programs of Study

Network Systems/Information Support and Services

H ELEMENTS

# **INFORMATION TECHNOLOGY**

# Network Systems/Information Support and Services

# **Pathway Courses**

- Year 1 Computer Keyboarding
- Year 2 Basic Electronics
- Year 3 Computer Graphics/ Web Page Design
- Year 4 Animation

# **Related Electives**

AP Calculus AB AP Calculus BC AP Chemistry AP Physics AP Physics C AP Statistics

## **Career Related Activities**

Graphic Design Mathletes Robotics

# **Dual Enrollment Credit**

Animation

# Certifications

Microsoft Technology Associate: Network Fundamentals 98-366 CompTIA - A+ CompTIA - Network+ CompTIA - Security + Cisco CCNA and Network Security Specialist Cisco CCNA Security Specialist Computer and Network Security Specialist Computer and Network Support Technician Computer Support Technician Database Management MCSA: Windows Server 2012 Oracle Database Administrator Network Administration Network Support Technician Network Support Technician

### **College Majors**

Computer Engineering Computer Information Systems Computer Science Information Technology System Administration Web Page/Multimedia

### Careers

Information, Computer Systems Design and Related Services Finance and Insurance Administrative and Support Services Educational Services; State, Local and Private Computer and Information Research Scientist and System Manager Computer Network Architect and Support Specialist Computer Programmer Computer Systems Analyst Computer User Support Specialist Network and Computer Systems or Database Administrator

# Marketing

Planning, managing and performing marketing activities to reach organizational objectives.

Pathways/Programs of Study

Marketing

# MARKETING

# Marketing

This program allows for a Career and Technical Endorsement and Dual Enrollment credit.

# **Pathway Courses**

- Year 1 Computerized Keyboarding/Career and Financial Management
  Year 2 - Sports and Entertainment Marketing
  Year 3 - Virtual Enterprise
  Year 4 - Computer Applications for College/Research
- and the Workplace

# **Career Related Activities**

DECA High School Heroes Graphic Designs Future Problem Solvers Odyssey of the Mind Student Council School Store Yearbook

# **Dual Enrollment Credit**

Business Law Accounting

# Certifications

E-Commerce Business eMarketing Essentials Managing Social Media Platforms Marketing Marketing Research MCSE: SQL Business Intelligence Mobile Marketing Real Estate Staging Retail Merchandising Sales Management and Development Social Media for Business Social Media Marketing Specialist Video Marketing

# **College Majors**

Advertising Fashion Merchandising International Marketing Marketing Merchandising Public Relations Retail Operations Sales/Distribution

### Careers

Advertising and Promotions Manager Appraiser and Assessor of Real Estate Demonstrator and Product Promoter Market Research Analyst and Marketing Specialist

# **Related Electives**

Accounting 1 & 2 Hotel & Restaurant Management Fashion Marketing Social Media Marketing Business and Personal Law AP Calculus AB AP Calculus BC AP Statistics AP Computer Science Principles

> Meeting, Convention and Event Planner Public Relation Real Estate Broker Sales and Related Worker Survey Researcher Wholesale and Retail Buyer

# Requirements for CTE Endorsement:

- The Microsoft Office Specialist exams in Word, PowerPoint, and Excel were chosen as the written and performance assessment
- Locally Created Portfolio
- Work Based Learning Experiences such as; Field Trips, Site Visits, Internships, Apprentice Opportunities, Job Shadowing and Employment Opportunities

# **Naval Science**

# Pathways/Programs of Study

- Junior Reserve Officer Training Corps



# JUNIOR RESERVE OFFICER TRAINING CORPS

# Marketing

# **Pathway Courses**

Year 1	Naval Science 1
Year 2	Naval Science 2
Year 3	Naval Science 3
Year 4	Naval Science 4

# **Related Electives**

Criminal Civil Justice
Psychology
AP Psychology
Human Relations
Sociology

# **Career Related Activities**

NJROTC Drill Team Mock Trial Peer Leadership Marching Band

# **Dual Enrollment Credit**

Cadets may earn Participation in Government credit through the NJROTC program. Cadets must have successfully completed at least one year of Naval Science class PRIOR to their senior year. Participation in Government credit will be earned upon successful completion of the second, third or fourth year of Naval Science class that is completed during their 12th-grade (senior) year.

# Careers

Border Patrol Officer Customs Officer Law Enforcement Official Military Officer Service in a branch of the military Army, Navy, Air Force Marines or Coast Guard

# **College Majors**

Aerospace Studies Military Science Naval Science



STUDENTS AND PARENTS ARE INVITED TO ATTEND

# COLLEGE AND CAREER SCHOOL NIGHT

# HELD ANNUALLY IN THE SPRING

Freeport High School 50 South Brookside Avenue, Freeport, Long Island, New York

# **ATTEND WORKSHOPS ON:**

Preparing for the College Process El Proceso de Admisión de la Universidad NCAA and Athletic Scholarships Saving for College

Colleges for Students with Learning Disabilities

Meet with more than 140 college representatives. This is a unique opportunity for students to meet with the admissions counselors from various colleges and universities, make inquiries about the programs and majors offered, obtain literature about the schools for future reference and make inquiries about admissions deadlines and campus visits.

# Science, Technology, Engineering and Mathematics

Planning, managing and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services and research and development services.

# Pathways/Programs of Study

- Engineering and Technology: Engineering
- Science and Mathematics: Science Research and Development
- P-Tech Mechanical Engineering Technology

# SCIENCE, ENGINEERING AND MATHEMATICS

# **Engineering and Technology**

# Engineering

- Year 1 Fundamentals of Technology
- Year 2 Technological Design
- Year 3 Technology and Society
- Year 4 Advanced Design Applications
  - Advanced Technological Applications

# **Career Related Activities**

Odyssey of the Mind Graphic Designs Robotics Science Olympiad Future Problem Solvers

# Certifications

Advanced Machine Technology Alternative Electrical Energy AutoCAD Designer Electrical Maintenance Electronics Industrial Electronics Maintenance Lean Six Sigma Green Belt Mechatronics Project Management Specialist Radio Frequency ID (RFID) Electronics Revit Architectural Designer

# **Related Electives**

AP Biology AP Calculus AB AP Calculus BC AP Chemistry AP Environmental Science AP Physics AP Physics C AP Statistics AP Computer Science Principles Drafting/CAD

# **College Majors**

Aerospace Engineer Agricultural Engineer Biomedical Engineer Chemical Engineer Civil Engineer Electrical Engineer Engineering Technician Industrial Engineer Mechanical Engineer Nuclear Engineer

### Careers

Aerospace Engineer Agricultural Engineer Biomedical Engineer CAD Designer Chemical Engineer Civil Engineer Draftsman Electrical Engineer Engineering Technician Industrial Engineer Mechanical Engineer Nuclear Engineer

# SCIENCE, ENGINEERING AND MATHEMATICS

# **Science and Mathematics**

Science Research and Development

# **Pathway Courses**

Year 1 - Authentic Science Research I Year 2 - Authentic Science Research II Year 3 - Authentic Science Research III

Year 4 - Authentic Science Research IV

# **Related Electives**

AP Calculus AB AP Calculus BC AP Statistics AP Biology AP Chemistry AP Physics AP Physics C AP Statistics

# **Career Related Activities**

HOSA Science Olympiad Robotics

# **College Majors**

Anatomy/Physiology Astronomy Biology/Biological Sciences Chemistry Ecology Geology/Earth Science Physics

## Careers

Astronomer Atmospheric and Space Scientist Biological Scientist Chemist Geoscientist Medical Scientist Microbiologist Museum Curator Physicist Research Technician Survey Researcher Zoologists and Wildlife Biologist



#### Earn a Degree

Upon graduation from P-TECH (up to six years of study) students will have earned a high school Regents diploma and a college Associate in Applied Science Degree in Mechanical Engineering Technology. They will have the opportunity to advance their education in a four-year degree program at Farmingdale State College.

#### **Start a Career**

P-TECH partners with industry leaders, giving students the experience they need to secure lucrative, high-level careers in manufacturing and engineering. P-TECH's comprehensive work-based learning program includes visits from industry experts, internships, shadow days, coaching and mentoring, and part-time employment.

#### **No Cost for Students**

P-TECH is funded through a New York State grant program and is delivered at no cost to students or their families. This means that P-TECH students will be enrolled in a two-year college degree program and an industry-based career development program free of charge.

#### **Comprehensive Curriculum**

P-TECH students will complete a full course sequence in the STEM disciplines (science, technology, engineering and math), manufacturing and engineering. The curriculum is aligned with the New York State Common Core Learning Standards, Regents Exams and Famingdale State College A.A.S. Degree.

#### **Expert Faculty**

Classes are taught by New York State-certified high school teachers trained as college adjunct instructors.

#### **Industry Partners**

As P-TECH's anchor corporate partner, Arkwin Industries will lead a diverse group of manufacturing and engineering companies in delivering an extensive work-based learning experience. A full list of P-TECH industry partners to date are:



#### **Arkwin Industries**



Aerospace and Defense Diversification Alliance in Peacetime Transition



The Association for Operations Management



Long Island Forum for Technology



Long Island STEM Hub

#### **The P-TECH Candidate**

The program is open to incoming ninth graders who are eager to acquire the skills necessary to earn a college degree and to compete in a highly competitive work force. Applicants must be willing to commit to a rigorous course of study in science, math, career development and essential 21st century skills, such as problem solving and critical thinking.

#### **Apply Now**

While there is no test required to enroll in P-TECH, only 20 spaces per district are available for the year, so students are encouraged to apply as early as possible. Interested eighth grade students and their families should speak to their guidance counselors to apply.

#### **According to Long Island Business News**

"Everybody thinks manufacturing's dead. It still employs 80,000 people and has over 3,500 companies on Long Island. It's a major economic driver." —Claude Solnik

# SCIENCE, ENGINEERING AND MATHEMATICS

# P-TECH – Mechanical Engineering Technology

# **Pathway Courses**

**Year 1** - English 9 PT, Global St 9 PT, Living Environment PT, CC Algebra PT (Double Period) P.E., Art/Music, Foreign Language 2R/H

**Year 2 -** English 10 PT, CC Geometry, Chemistry PT, Global St 10 PT, P.E., Foreign Language 3R/H, Health

**Year 3** - English 11 PT, CC Algebra 2 PT, Physics, Physics PT, U.S. History PT, Foreign Language 4R/H, Health, P.E., English 101, English 12 PT, MTH 129-Calculus with Applications, Pre-Calculus with Applications

**Year 4** - Participation in Government PT, Economics PT, P.E., Foreign Language 5R/AP Spanish Language

# **Related Electives**

GPH 103-Technicical Drafting, GPH 104-Introduction to Computer Graphics MET109-Computer Programming and Applications MER 215-Robotics MET 211-Advanced Computer Graphics (Fall), MET 117-Manufacturing Processes (Spring)

# **Career Related Activities**

Graphic Designs Mathletes Robotics Science/Club Science Olympiad WFHS Communications

# **External Experiences**

Industry Mentorship Internship Summer Job Shadow

# Certifications

Alternative Electrical Energy AutoCAD Designer Electrical Maintenance Electronics Industrial Electronics Lean Six Sigma Green Belt Mechatronics Project Management Specialists Radio Frequency ID (RFID) Electronics Revit Architectural Designer

# **College Majors**

Aerospace Engineer Agricultural Engineer Biomedical Engineer

### Careers

Aerospace Engineer Agricultural Engineer Biomedical Engineer CAD Designer Chemical Engineer Civil Engineer Draftsman Electrical Engineer Engineering Technician Industrial Engineer Mechanical Engineer Nuclear Engineer

# Transportation, Distribution and Logistics

Planning, management and related professional and technical support services, such as logistics services, mobile equipment and facility maintenance.

Pathways/Programs of Study

Automotive Technology

# CTE AUTOMOTIVE TECHNOLOGY AUTOMOTIVE TECHNOLOGY

This Program allows for a career and technical graduation endorsement and dual enrollment credit.

# Pathway Courses

Year 1 • Production Systems Basic Electronics
Year 2 • Design and Drawing for Production
Year 3 • Auto Mechanics 1

Year 4 - Auto Mechanics 2

# **Related Electives**

Basic Electronics Production Systems Computer Graphics Video Game Design Design and Drawing for Production Industrial Drafting 1-3 Photo 1 Digital Photography Auto Mechanics 1 & 2 Animation Fundamentals of Technology Landscape Design/Drafting Electrical Engineering

# **Career Related Activities**

Graphic Designs Mathletes Robotics Science Club/Science Olympiad WFHS Communications Computer Applications Skills USA

# **Dual Enrollment Credit**

Auto Mechanics 1 Auto Mechanics 2 Animation Photo 1 Digital Photography

# Certificates

Snap-On/NC3 Digital Multi-Meter Certification All Data: Certified Automotive Information Specialist ASE Student Certification – G1: Maintenance and Light Repair ASE Student Certification – A1: Engine Repair ASE Student Certification – A2: Automatic Transmission/ Transaxle ASE Student Certification – A3: Manual Drive Train and Axles ASE Student Certification – A4: Suspension and Steering ASE Student Certification – A5: Brakes ASE Student Certification – A6: Electrical/Electronic Systems ASE Student Certification – A7: Heating and Air Conditioning ASE Student Certification – A8: Engine Performance

# **College Majors**

Aircraft Maintenance Auto body/Collision and Repair Technicians Automotive Mechanics Technology/Technician Diesel Mechanics Technology/Technician Engine Machinist, Small Engine Mechanics and Repair Technology/Technician Vehicle Emissions Inspection and Maintenance Technology/ Technician

# Careers

Automotive Service Technician Diesel Mechanic Motorboat Mechanic Aircraft Maintenance Technician Automotive Body and Related Repairer Automotive Service Technician and Mechanic Automotive Specialty Technician Bus and Truck Mechanics and Diesel Engine Specialist Engine and Other Machine Assembler Installation, Maintenance and Repair Worker

# AVIATION

This Program allows for a career and technical graduation endorsement and dual enrollment credit.

# Pathway Courses

Year 1 • Algebra/Living Environment Year 2 • Earth Science/Geometry Year 3 • Aviation Operations (Nassau BOCES) Year 4 • Aviation Operations (Nassau BOCES)

# **Related Electives**

AP Computer Science Pre-Calculus AP Calculus AB AP Calculus BC Physics Naval Science

# **Career Related Activities**

NJROTC Drill Team Mock Trial Peer Leadership Robotics

# **Dual Enrollment Credit**

Pre-Calculus

# Certificates

Snap-On/NC3 Digital Multi-Meter Certification All Data: Certified Automotive Information Specialist ASE Student Certification – G1: Maintenance and Light Repair ASE Student Certification – A1: Engine Repair ASE Student Certification – A2: Automatic Transmission/ Transaxle ASE Student Certification – A3: Manual Drive Train and Axles ASE Student Certification – A4: Suspension and Steering ASE Student Certification – A5: Brakes ASE Student Certification – A6: Electrical/Electronic Systems ASE Student Certification – A7: Heating and Air Conditioning ASE Student Certification – A8; Engine Performance

# **College Majors**

Aerospace Studies Aviation Administration Aerospace Engineering Aviation and Aerospace Technology Aviation Flight Management Aviation Maintenance Management Air Traffic Control Management Air Transportation

# Careers

Commercial Pilot Air Traffic Controller Aerospace Engineer Aviation Inspector Aeronautical Drafter Aerospace Engineer Aircraft Mechanic Air Crew Member Airfield Operations Specialist Aircraft Manufacturing Aviation Management Flight Dispatch

# **COMMUNICATION**

# World Language and International Study Pathway

# Pathways/Programs of Study

World Language and International Study

# WORLD LANGUAGE AND INTERNATIONAL STUDY PATHWAY

### **Pathway Courses**

Year 1 - World Language

Year 2 - World Language

Year 3 - World Language

AP Spanish Language

Year 4 - World Language

AP Spanish Literature

# **Related Electives**

Fashion Marketing Advertising and Media Design Sports and Entertainment Marketing Criminal and Civil Justice

# **Career Related Activities**

German Exchange Foreign Language Club (French/Italian/ESL) Interact /Rotary Club Latin Dance Salsa Team Student Government DECA HOSA International Ambassadors

# **College Majors**

World Language Business Education Journalism Arts Social Services Travel and Tourism Communications

# Careers

**Airline Services Event Management** Foreign Civil Service International Law Merchandise Buyer/Branding Hotel Management Import/Export Specialist Subtitle and Voiceover Artist International Business Affairs Interpreter/Translator World Language Teacher Journalists **Tourism and Travel Services** Film Industry Publishing Medical Field

\*\*Students are eligible to apply for a Seal of Biliteracy upon successful completion of this pathway and other requirements.

# FREEPORT HIGH SCHOOL CLUBS AND EXTRA-CURRICULAR ACTIVITIES

Freshman Class Sophomore Class **Junior Class** Senior Class "It's Academic" **AIDS Awareness Group Art/Fashion Club** Audio Visual **Brass Ensemble** Chess Club DFCA Devil's Pride FHS She-Devils Colorguard Flashings Foreign Language Clubs (French/Italian/ESL) Freeport Sports Leadership Club **Future Problem Solving Gay Straight Alliance** German Exchange Graphic Designs HOSA Human Relations Interact /Rotary Club Jazz Ensemble Key Club I A DY

Latin Dance Salsa Team Marching Band **Mathletes Mock Trial** National Honor Society Ninth Grade Select NJROTC Drill Team Odyssey of the Mind #1 Odyssey of the Mind #2 Peer Buddy Club Peer Leadership **Peer Tutoring Renaissance** Club SADD/ Challenge Leaders Science Club/ Science Olympiad She-Devils Heat Kickline **Step Team** Student Government **Travel Training (CEI** Students) Truth Club Vintage WFHS Communications Yearbook Young Men's Initiative