Arts, Media and Communication



Graphic Communication

Construction and Development



Construction Professions

- Architecture Design Drafting
- Carpentry
- Electrical

Construction Maintenance

- Heating, Ventilation, Air Conditioning
- Welding

Customer Services, Hospitality & Tourism



Food and Beverage Management

- Culinary Arts

Careers in Cosmetology

Environmental, Agriculture & Natural Resources



Horticultural Services

- Agriculture - Horiculture Science

Health & Biosciences



Academy of Health Professions

- Certified Nursing / Clinical Medical Assistant
- Physical Rehabilitation

Human Resource Services



Homeland Security & Emergency Preparedness

- Criminal Justice and Law Enforcement

Information Technology



IT Networking Academy (Cisco)

Manufacturing, Engineering & Technology



Manufacturing Engineering Technologies

- Advanced Manufacturing - Machining

Transportation Technologies



Automotive Technician

Autobody/Collision Repair Technician

ADVANCED MANUFACTURING
Machining



Expectations

Articulation Agreement:

HCC (6 credits)

Industry Recognized Credentials:

OSHA 30
Six Sigma White belt

Maintain GPA 3.0

ADVANCED MANUFACTURING
Machining

High School Course Recommendations

- Trigonometry
- Physics

Certs: 1150-1350L

Post-Secondary Options

ASSOCIATES DEGREE

- CAM Technician
- Maintenance Mechanic
- Manufacturing Technician

BACHELORS DEGREE

- Mechanical Engineer
- Tooling/Product Engineer
- Controls Engineer

MASTERS DEGREE

- Engineer

14 students per cohort commit to this 4 year program of study

ARTS, ENTERTAINMENT, & DESIGN
Graphic Communications

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Graphic Communiation
- Adobe Photoshop
- Adobe Illustrator
- Layout design

Graphic Communication I

11

- Digital imagining
- Photo editing
- Layout design
- Publication techniques
- Adobe InDesign
- Print Media

G.C. II
G.C. III

12

- Internships
- Youth apprenticeship
- School based enterprise
- Capstone

Career Connected Learning I & II

Expectations

Articulation Agreement:

HCC (3 credits)
CCBC (6 credits)

Maintain GPA 3.0

Industry Recognized Credentials:

Print[ED]:
Intro to Graphic Communications
Graphic Design

Adobe Certified Professional:
Photoshop, Illustrator, In-Design

ARTS, ENTERTAINMENT, & DESIGN
Graphic Communications

High School Course Recommendations

- Geometry
- Business
- Advanced Art
- Photography

Post-Secondary Options

- Graphic Designer Assistant
- Desktop Publisher
- Digital Imaging Specialist
- Operations and Print Shop Manager
- Imaging Specialist
- Graphic Designer

Certs: 1100-1300L

ASSOCIATES DEGREE

BACHELORS DEGREE

MASTERS DEGREE

20 students per cohort commit to this 4 year program of study

Environmental, Agriculture & Natural Resources
Horticulture Science

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Plant growth
- Plant anatomy
- Soil health
- Crop production
- IPM

Hort. Science I

11

- Plant Physiology
- Porpagation techniques
- Soil fertility
- Nutrient management
- Hydroponics
- Vertical farming

Hort. Science II
Hort. Science III

12

- Internships
- Youth apprenticeship
- School based enterprise
- Capstone

Career Connected Learning I & II

Expectations

Articulation Agreement:

CCBC (13 credits)

Industry Recognized Credentials:

OSHA 30

Certified Professional Horticulturist
Sediment & Erosion Control
ICEV Plant Science

Maintain GPA 3.0

Environmental, Agriculture & Natural Resources
Horticulture Science

High School Course Recommendations

- Geometry
- Business
- Advanced Art
- Photography

Certs: 1050-1450L

Post-Secondary Options

- Greenhouse technician
- Arborist assistant
- Grounds supervisor
- Landscaper
- Florist

ASSOCIATES DEGREE

- Horticulturist
- Nursery manager
- Landscape designer
- Plant breeder

BACHELORS DEGREE

- Research scientist
- Curator
- Forestry management
- Sustainability management

MASTERS DEGREE

20 students per cohort commit to this 4 year program of study

CONSTRUCTION
Architectural Design & Drafting

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Architectural History
- Hand Sketching
- Drafting Tools
- CAD software

Architectural Design Priciples

11

- Digital building models
- Building codes
- Environmental designs
- Mechanical and electrical systems

Architectural Design I & II

12

- Design III
- Internships
- Youth apprenticeship
- School based enterprise
- Capstone

Career Connected Learning I & II

Expectations

Dual Enrollment:
SolidWorks CADD 265

Articulation Agreement:
HCC (4 credits test in)

Industry Recognized Credentials:

OSHA 30

AutoDesk Certified User:
AutoCAD, Revit

Maintain GPA 3.0

CONSTRUCTION
Architectural Design & Drafting

High School Course Recommendations

- Physics
- Calculus AB
- Calculus BC
- Comp. Science

Certs: 1150-1350L

Post-Secondary Options

ASSOCIATES DEGREE

- CAD Technician
- Engineer Technician

BACHELORS DEGREE

- Engineer (Mechanical, Civil, System, Electrical, Industrial, Traffic)
- Architect

MASTERS DEGREE

- Engineer

20 students per cohort commit to this 4 year program of study

CONSTRUCTION
Carpentry

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Construction Math
- Hand/power tools
- Construction drawings
- Employability

Construction Fundamentals

11

- Wood framing
- Residential construction
- Stairs layout
- Roof framing
- Installation exterior finishes
- Blueprint reading

Carpentry I
Carpentry II

12

- Internships
- Youth apprenticeship
- School based enterprise
- Capstone

Career Connected Learning I & II

Expectations

Articulation Agreement:
CCBC (6 credits)

Industry Recognized Credentials:

OSHA 30

NCCER Core
NCCER Level 1 Carpentry

Maintain GPA 3.0

CONSTRUCTION
Carpentry

High School Course Recommendations

- Statistics
- Business
- Economics

Post-Secondary Options

- Carpenter
- Construction Manager
- Building Code Inspector
- Project Manager
- Construction Management

Certs: 1050-1350L

ASSOCIATES DEGREE

BACHELORS DEGREE

MASTERS DEGREE

15 students per cohort commit to this 4 year program of study

CONSTRUCTION
Electrical

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Construction Math
- Hand/power tools
- Construction drawings
- Employability

Core Construction Principles

11

- Circuits
- State/federal code
- Current motors
- Installation

Electrical I
Electrical II

12

- Internship
- Youth apprenticeship
- Capstone

Electrical III
Electrical IV

Expectations

Articulation Agreement:
HCC (1 year apprenticeship)
CCBC (6 credits)

Industry Recognized Credentials:

OSHA 30

NCCER Core
NCCER Level 1 Electrical

Maintain GPA 3.0

CONSTRUCTION
Electrical

High School Course Recommendations

- Physics
- Trigonometry
- Statistics
- Business
- Economics

Post-Secondary Options

- Electrician
- Construction Manager
- Building Code Inspector
- Project Manager
- Electrical Engineer
- Electrical Engineer

Certs: 1050-1350L

ASSOCIATES DEGREE

BACHELORS DEGREE

MASTERS DEGREE

15 students per cohort commit to this 4 year program of study

Continuing Education:
Journeyman (3 more years + 21 credits AA)
Master Electrician (6 more years)

Union:
(ex:) Baltimore Electrical JATC; IBEW Local 24

CONSTRUCTION
Heating Ventilation Air Conditioning & Refrigeration

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Construction Math
- Hand/power tools
- Construction drawings
- Employability

Core Construction Principles

11

- Piping material and joining techniques
- State/federal code
- Drawing interpretation
- DWV systems
- Installation & Testing

HVACR I
HVACR II

12

- Internship
- Youth apprenticeship
- Capstone

HVACR III
HVACR IV

Expectations

Articulation Agreement:
HCC (1 year apprenticeship)
CCBC (22 credits)

Industry Recognized Credentials:

OSHA 30

EPA Core
EPA Type I, II, III

Maintain GPA 3.0

CONSTRUCTION
Heating Ventilation Air Conditioning & Refrigeration

High School Course Recommendations

- Geometry
- Statistics
- Business
- Economics

Certs: 1100-1350L

Post-Secondary Options

- HVACR technician
- Engineering Technician
- Construction

ASSOCIATES DEGREE

- Building Code Inspector
- Project Manager
- Cost Estimator

BACHELORS DEGREE

- Construction Manager

MASTERS DEGREE

15 students per cohort commit to this 4 year program of study

Continuing Education:
Journeyman (3 more years)
Master Technician (6 more years)

Union:
(ex:) Local 486

CONSTRUCTION
Welding

09

- Safety
- Energy
- Technology
- Tools
- College & Career

Foundations of Technology

10

- Construction Math
- Hand/power tools
- Equipment setup
- Construction drawings
- Employability

Core Construction Principles

11

- AWS specifications
- Welding symbols
- Plan reading
- Oxyfuel, SMAW, GMAW operations for open-root and pipe to plate

Welding I
Welding II

12

- Welding III
- Internships
- Youth apprenticeship
- School based enterprise
- Capstone

Career Connected Learning I & II

Expectations

Articulation Agreement:
HCC (6 credits)

Industry Recognized Credentials:

AWS certifications:
SMAW, GMAW, FCAW, SAW, BZ

CONSTRUCTION
Welding

High School Course Recommendations

- Geometry
- Statistics
- Business
- Economics

Post-Secondary Options

- Welder
- Solderer
- Brazer

- Production Welder
- Custom Fabricator
- Cost Estimator

- Construction Manager

Certs: 10001

ASSOCIATES DEGREE

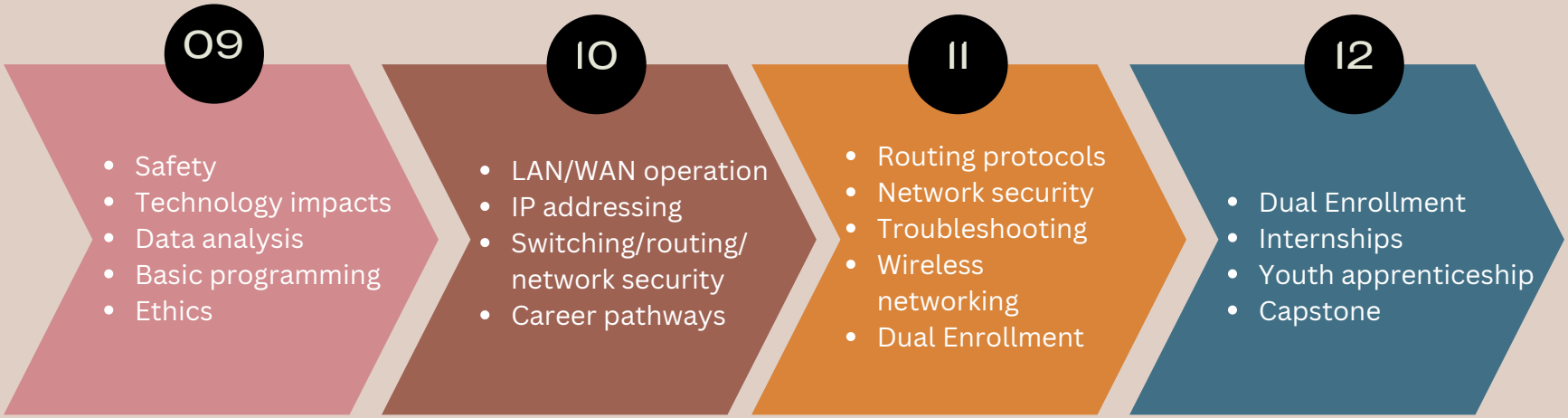
BACHELORS DEGREE

MASTERS DEGREE

14 students per cohort commit to this 4 year program of study

Continuing Education:
(ex:) Earlbeck, Hobert Institute
Apprenticeship:
(ex:) Baltimore Fabrication
Union:
(ex:) Local 486, Ironworkers 5

DIGITAL TECHNOLOGY
IT Networking



Expectations

Dual Enrollment:
Cisco I (ISS 111); Cisco 2 (ISS 112)
Cisco 3 (ISS 213); Fund. of Security (CIS 210)

Articulation Agreement:
HCC (21 credits test in)
CCBC (12 credits)

Industry Recognized Credentials:

CCST IT Support
CompTIA Network+
CompTIA Security+

Maintain GPA 3.0

DIGITAL TECHNOLOGY
IT Networking

High School Course Recommendations

- Calculus AB/ BC
- Physics
- Statistics
- Computer Science

Certs: 1150-1400L

Post-Secondary Options

ASSOCIATES DEGREE

- Database analyst
- PC support
- Network technician
- Network analyst

BACHELORS DEGREE

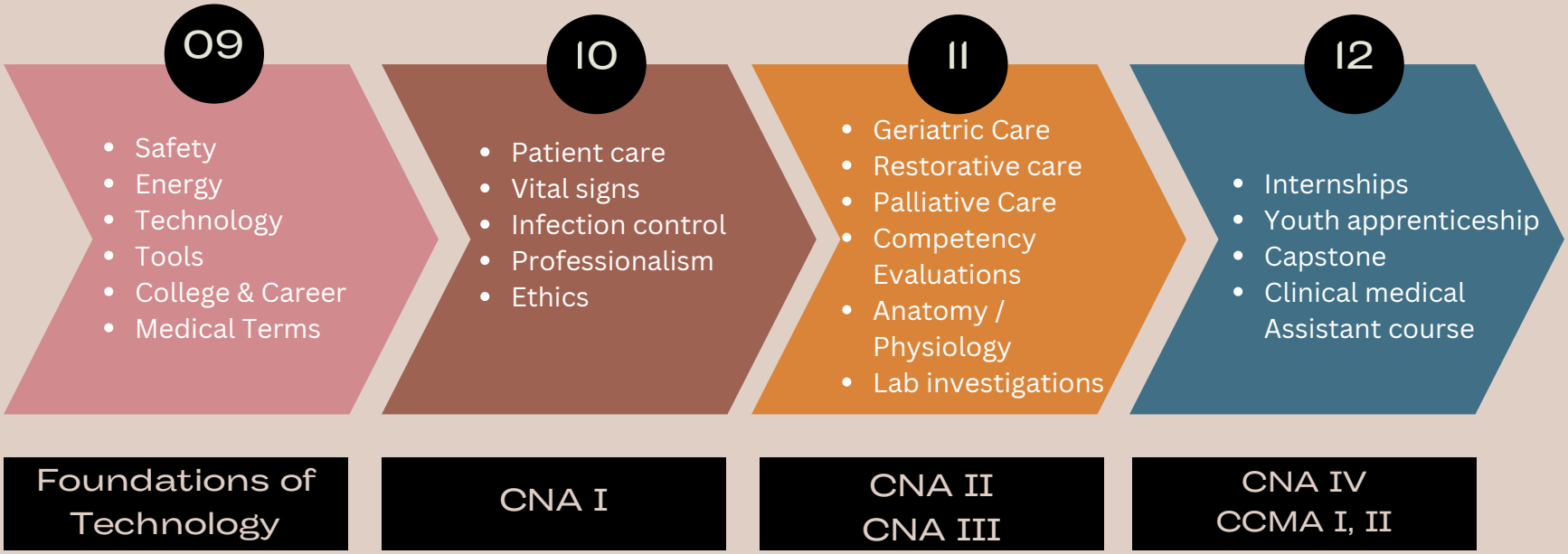
- Project manager
- Database developer
- Information systems
- Lead programmer

MASTERS DEGREE

- Network Engineer
- Computer Engineer
- Business Analyst

20 students per cohort commit to this 4 year program of study

HEALTHCARE & HUMAN SERVICES
Certified Nursing Assistant



Expectations

Dual Enrollment:
Science coursework

Articulation Agreement:
HCC (3 credits)
CCBC (3 credits)

Industry Recognized Credentials:

Certified Nursing Assistant (CNA)
Clinical Medical Assistant (CCMA)
Geriatric Nursing Assistant (GNA)

Maintain GPA 3.0

HEALTHCARE & HUMAN SERVICES
Certified Nursing Assistant

High School Course Recommendations

- Pre-calculus
- Statistics
- AP Biology
- Anatomy and Physiology
- Chemistry

Certs: 1100-1300L

Post-Secondary Options

ASSOCIATES DEGREE

- Nursing Assistant
- Radiographer
- Lab Technician
- Dietetic Technician

BACHELORS DEGREE

- Registered Nurse
- Nutritionist
- Nurse Supervisor

MASTERS DEGREE

- Nurse Practitioner
- Physician
- Nurse Director

24 students per cohort commit to this 4 year program of study

HEALTHCARE & HUMAN SERVICES
Cosmetology

09

- Safety
- Energy
- Technology
- Tools
- College & Career
- Terminology

Foundations of Technology

10

- Foundational Skills: Hair, nail, skincare
- Professionalism
- Infection control
- Basic hair techniques
- Safety protocols
- Customer Service

Cosmetology I
Cosmetology II

11

- Proficiency in: hairstyle, chemical treatments, nail care, skincare, wellness service
- Corrective coloring
- Multi-dimensional color and nail

Cosmetology III
Cosmetology IV

12

- Advanced hairstyle and coloring
- Entrepreneurship
- School based enterprise
- Internship
- Capstone

Career Connected Learning I & II

Expectations

<u>Industry Recognized Credentials:</u>

Cosmetology License Maryland

HEALTHCARE & HUMAN SERVICES
Cosmetology

High School Course Recommendations

- Geometry
- Statistics
- Accounting
- Business

Post-Secondary Options

- Cosmetologist
- Salon Manager
- General Manager
- Regional Manager
- Territory Manager

Certs: 1100L

ASSOCIATES DEGREE

BACHELORS DEGREE

MASTERS DEGREE

18 students per cohort commit to this 4 year program of study

HOSPITALITY, EVENTS, & TOURISM

Culinary Arts

09

- Safety
- Energy
- Technology
- Tools
- College & Career
- Seasonal ingredients

Foundations of Technology

10

- Food safety
- Sanitation
- Culinary Techniques
- Career Paths
- Food presentation
- Portion Control

Culinary Arts I

11

- Advanced Cooking techniques and presentations including grilling, roasting, baking
- Restaurant operations

Culinary II
Culinary III

12

- Youth apprenticeship
- School based enterprise
- Capstone

Career Connected Learning I & II

Expectations

Articulation Agreement:

Walnut Hill College

Industry Recognized Credentials:

ServSafe Manager

Maintain GPA 3.0

HOSPITALITY, EVENTS, & TOURISM
Culinary Arts

High School Course Recommendations

- Statistics
- Pre-college math
- Chemistry
- Accounting
- Economics
- Business

Certs: 1100-1150L

Post-Secondary Options

- Restaurant Owner
- Sales Manager
- Chef
- Kitchen Manager

- General Manager
- Food Service Manager
- Executive Chef
- Registered Dietitian
- Nutritionist

ASSOCIATES DEGREE

BACHELORS DEGREE

MASTERS DEGREE

15 students per cohort commit to this 4 year program of study

SUPPLY CHAIN & TRANSPORTATION
Autobody Collision Repair

09

- Safety
- Energy
- Technology
- Tools
- College & Career

10

- Environmental regulations
- Repair planning
- Industry Standards
- Tool identification

11

- Advanced panel repair
- Welding procedures
- Surface Prep
- Paint mixing
- Color matching and application

12

- Complex structural repairs
- Calibration procedures
- Youth apprenticeship
- Capstone
- School based enterprise

Foundations of Technology	Introduction to Collision Repair	Non-structural Repair & Weld Paint and Refinish	Structural Analysis Career Connect Learning I

Expectations

<u>Industry Recognized Credentials:</u>

OSHA 30

ASE Entry Level:
Non-structural analysis, Damage Repair, Painting and Refinishing, Structural Analysis

SUPPLY CHAIN & TRANSPORTATION
Autobody Collision Repair

High School Course Recommendations

- Geometry
- Business
- Economics

Certs: 1000-1350L

Post-Secondary Options

ASSOCIATES DEGREE

- Parts Manager
- Collision Repair Technician
- Maintenance Manager
- Railcar Technician

BACHELORS DEGREE

- Mechanical, Design, Structural Engineer
- Manufacturing Operations Manager

MASTERS DEGREE

- Systems Engineer
- Quality Engineer

15 students per cohort commit to this 4 year program of study

SUPPLY CHAIN & TRANSPORTATION
Automotive Technology

09
- Safety
- Energy
- Technology
- Tools
- College & Career
- Environmental Rules

Foundations of Technology

10
- Basic repair, maintenance, servicing of vehicles
- Tool use
- Employability

Automotive Basics

11
- Diagnose vehicles
- Tool use
- Advanced repair, maintenance, servicing

Automotive Tech I
Automotive Tech II

12
- Youth apprenticeship
- Capstone
- School based enterprise

Career Connected Learning I & II

Expectations

Articulation Agreement:
CCBC (5 credits)

Maintain GPA 3.0

Industry Recognized Credentials:

ASE Entry Level:
Electrical, Suspension & Steering, Brakes, Engine repair, Drive Train, Transmission, Heating and Air, Engine Performance, Maintenance & Light Repair

SUPPLY CHAIN & TRANSPORTATION
Automotive Technology

High School Course Recommendations

- Geometry
- Statistics
- Business
- Economics

Certs: I000-I350L

Post-Secondary Options

ASSOCIATES DEGREE

- Parts Manager
- Automotive Technician
- Maintenance Manager
-

BACHELORS DEGREE

- Mechanical, Design, Structural, Civil Engineer
- Manufacturing Operations Manager

MASTERS DEGREE

- Systems Engineer
- Quality Engineer

15 students per cohort commit to this 4 year program of study

Healthcare & Human Services
Physical Rehabilitation

09

- Safety
- Energy
- Technology
- Tools
- College & Career
- Environmental Rules

Foundations of Technology

10

- Basic patient care
- Vital Signs
- Infection control
- Ethics
- CPR / First Aid
- Musculoskeletal

Physical Rehab I

11

- Therapeutic practices - taping & mobility support
- Injury prevention
- Rehab strategies
- Neuromuscular
- Cardiopulmonary
- Disease
- External environ.

Physical Rehab II
Physical Rehab III

12

- Dual Enrollment
- Internship
- Capstone
- Youth apprenticeship

Physical Rehab IV
Dual Enrollment

Expectations

Dual Enrollment:
Fitness Assessment (EXSC 201)

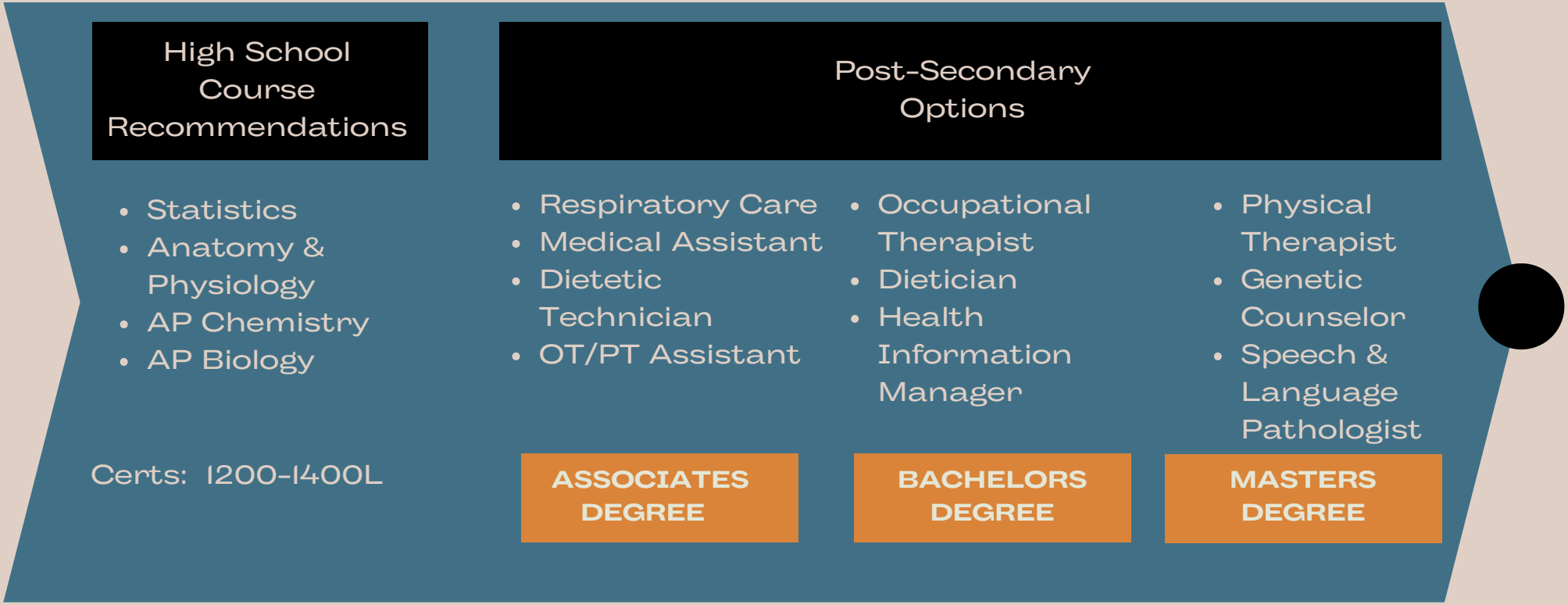
Articulation Agreement:
CCBC (3 credits)
Stevenson Univ

Industry Recognized Credentials:

First Aid
CPR
National Strength Professional Association (NSPA)

Maintain GPA 3.0

Healthcare & Human Services
Physical Rehabilitation



22 students per cohort commit to this 4 year program of study

Human Resources
Criminal Justice and Law Enforcement

09

- Safety
- Energy
- Technology
- Ethics
- Technical Writing
- Communication
- Fitness Standards

10

- Roles of police, courts, and corrections
- Community policing
- Public Safety
- Relations/rapport
- CPR certification

11

- Law enforcement techniques
- Constitutional Law
- Search & Seizure
- Trust building
- Mental Health Aareness
- Conflict Resolution
- Community & Crisis

12

- Dual Enrollment
- Internship
- Capstone
- Youth apprenticeship

Foundations of Technology	Criminal Justice and Law Enforcement I	CJ & LE II CJ & LE III	Dual Enrollment Career Connected Learning I

Expectations

Dual Enrollment:
Police & Community Relations
(CJ 201)

Articulation Agreement:
HCC (CJ 111- 3 credits)

Industry Recognized Credentials:

CPR
EMT
QPR
FEMA

Maintain GPA 3.0

Human Resources
Criminal Justice and Law Enforcement

High School Course Recommendations

- Statistics
- Anatomy & Physiology
- Forensics
- Spanish IV

- Youth Academy
- Explorers

Certs: 1100-1300L

Post-Secondary Options

- Police Officer / Trooper
- Conservation Officer
- Corrections Officer

ASSOCIATES DEGREE

- Criminal Investigator
- Crime Lab Analyst
- Crime Scene Investigator

BACHELORS DEGREE

- DEA Agent
- Forensics
- FBI
- Homeland Security
- Lawyer

MASTERS DEGREE

15 students per cohort commit to this 4 year program of study



We want to all be engaged in our diverse school community to ensure all are prepared for college and careers.

We promise to support our school community by cultivating a mindset of growth, resiliency, and responsible interactions.

We are pro-active in the classroom and build positive relationships with our students to eliminate disruptions to learning.

As a school community, we will collaborate to work effectively, efficiently, and collaboratively.

Harford Technical High School