

# GUIDE TO COURSE SELECTION

## 2021-2022



**NEW CASTLE COUNTY VOCATIONAL TECHNICAL SCHOOL DISTRICT**

*PREPARED BY*

**INSTRUCTIONAL SERVICES STAFF  
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1703 SCHOOL LANE  
WILMINGTON, DE 19808**

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**New Castle County Vocational Technical School District**

1417 Newport Road, Wilmington, DE 19804

**District Office: 995-8000**

**Delcastle Technical High School**

1417 Newport Road  
Wilmington, DE 19804  
302-995-8100

**Hodgson Vocational Technical High School**

2575 Glasgow Avenue  
Newark, DE 19702  
302-834-0990

**Howard High School of Technology**

401 East 12th Street  
Wilmington, DE 19801  
302-571-5400

**St. Georges Technical High School**

555 Hyett's Corner Road  
Middletown, DE 19709  
302-449-3360

## VISION

NCCVT School District delivers world-class Career and Technical programs combined with rigorous academic curricula to equip students with the 21st century skills that will best serve the State of Delaware and the global community.

## MISSION

We provide superior Career and Technical Education, enabling all students to achieve their aspirations.

## CORE BELIEFS

NCC Vo-Tech School District Believes:

- All students have the ability to learn and the opportunity to succeed.
- Our district community has the highest standards and expectations for instruction.
- Our schools are unique in providing extensive Career and Technical Education opportunities and experiences that prepare students for postsecondary success.
- It is important to respect and value diversity, creating an environment that is inclusive of all.
- Business partnerships, community involvement, and family support are essential to our high quality schools.
- All students are workforce-ready upon graduation.

### ***Student Attributes***

NCCVTSD strives to prepare graduates to be:

- Highly employable and workforce ready
- Innovators
- Problem solvers
- Effective Communicators
- Ambassadors for NCCVT
- Life-long learners



## The Course Selection Procedure

Although students will receive help from parents, teachers, and school counselors in choosing courses, the responsibility for these choices ultimately falls on each student. ***In order to choose a program, the following steps should be followed:***

1. Determine the requirements of the program of study for a chosen career area.
2. Determine the requirements for graduation from the New Castle County Vocational Technical School District.
3. Students should listen and ask questions of career teachers as course selection is discussed in class.
4. Students should meet with their school counselors.

The New Castle County Vo-Tech curriculum is designed to accommodate a wide variety of students' needs. Students follow the programs of study for their chosen career areas. Many students continue on to post-secondary educational opportunities (e.g. technical training, community college).

While students, their parents, counselors, and teachers should all be involved in the course selection process, ultimately it is each student's personal responsibility to choose those courses that will best meet his or her own needs and interests. The choice should be a well-informed one, based on knowledge of the requirements for entrance into various occupations, colleges, or technical schools. An ideal schedule should challenge, but not overwhelm, while it leads toward an occupational or educational goal. Further research and consultation with counselors, teachers, and other knowledgeable people may be necessary before students and their parents can make wise decisions.

## Graduation Requirements

Under the auspices of the State Board of Education, the New Castle County Vocational Technical School District issues a high school diploma or a certificate of performance. In addition, the NCCVTSD awards a career program certificate to students meeting established criteria (see p. 5). A diploma is issued to students who earn a minimum of 27.5\* course credits as required by the NCCVT Board of Education. The credits must include:

- 10 Career Program of Study (*including exploratory and related/elective vocational courses*)
- 4 English
- 4 Mathematics (*1 credit must be in senior year; 1 credit must be in Integrated Math 3*)
- 3 Science (*1 credit must be in Biology*)
- 3 Social Studies (*1 credit must be in U.S. History*)
- 1 Physical Education
- 0.5 Health
- 2 World Language (*2 credits in the same language*)

\* All programs of study meet or exceed state-mandated graduation requirements, including Carnegie unit course work and competency completion.

## Criteria for Awarding Certificates of Competency

1. Student must be eligible for graduation from a NCCVTSD high school.
2. Certificate Levels:
  - **Exemplary**  
Awarded to students that have successfully completed all career competencies with an A average and have an overall cumulative grade point average of 3.0 or better.
  - **Proficient**  
Awarded to students that have successfully completed all career competencies and have an overall cumulative grade point average of 2.0 or better.
  - **Limited**  
Awarded to students that have successfully completed all or part of the career competencies.

Competencies required will be aligned with industry, trade, and/or professional standards and will be determined by career program teachers. Competencies and requirements for each career area will be consistent across all four NCCVTSD high schools.

## Cooperative Employment Program

The **New Castle County Vocational Technical School District** provides a cooperative work-based learning experience for students in their senior year. This cooperative arrangement allows senior students to work in business and industry while completing their high school education. Participation as a part-time employee is considered on an equal basis with students' participation in their career training programs, especially when the work experience is related to a student's career area of studies.

Related employment is of major importance in the student work-based learning experience with compensated related employment seen as the capstone of career pathway completion. A high percentage of employment related to students' career studies exists in most career areas. The best cooperative work experience occurs when students apply what has been learned in their career areas training to related real-world work experience.

## ARTICULATION AGREEMENTS

NCCVTSD has articulation agreements with Delaware Technical and Community College, Wilmington University, and several other post-secondary institutions as well as apprenticeship agreements with the Adult Education Division Apprenticeship and Technical Training programs that award advanced credit to high school students who have mastered identified course competencies.

The articulation agreement programs currently include course credit in the following areas:

**Academy of Finance & Business**  
**Athletic Healthcare**  
**Auto Technology**  
**Biomedical Sciences**  
**Business Technology**  
**Carpentry**  
**Chemical Lab Technology**  
**Computer Network Administration**  
**Culinary Arts**  
**Electrical Trades**  
**Graphic Arts**  
**Heating, Ventilation & Air Conditioning**  
**Industrial Mechanics / Millwright Technology**  
**Information Technology Academy**  
**Legal Support Services**  
**Masonry**  
**Medical Assisting**  
**Nursing Technology**  
**Plumbing**  
**Sheet Metal Fabrication**  
**Surgical Technology**  
**Teacher Academy for Early Childhood Education**  
**Teacher Academy for K12**  
**Technical Drafting & Design**  
**Web & Print Technology**  
**Welding/Fabrication Technology**



## Grading System

The giving of a "grade" or "mark" is the traditional method of evaluating a student's achievement. A grade represents the teacher's estimate of a pupil's accomplishment for a given period of time. Students are encouraged to constantly evaluate their own work. *In NCCVTSD, the grading system is as follows:*

90 - 100	=	A
80 - 89	=	B
70 - 79	=	C
60 - 69	=	D
≤ 59	=	F

## Summer School & the Alternative Secondary Program

A student who fails a course may repeat the course in NCCVT's Summer School or in an approved credit recovery program. Failing grades are not removed from a student's record; however, the summer school grade is recorded and averaged with the other grades. **Students are strongly urged to take English in the NCCVT Summer School Program.** Eligible students 16 or older who fail a required course or who lack sufficient credits for graduation after the first semester may attend the **Alternative Secondary Program** with their counselor's recommendation. The Alternative Secondary Program is designed for students who may not be able to complete course requirements for graduation during the regular school day. This program provides a flexible schedule that allows students to attend classes in the late afternoon or evening.

## Alternative Coursework Options

The New Castle County Vocational-Technical School District Board of Education has the ultimate responsibility for endorsing and approving all programs offered in district schools. The responsibility includes setting the philosophy and framework for online courses. Online courses are intended as an option for students to recover credit, in the case of course failure, or earn original credit through an online platform. Online courses can be self-paced or instructor-led.

*Students who fail a course may recover credit through:*

- A. An approved summer school or after-school program
- B. An approved evening school
- C. Re-enrollment in the course
- D. Accredited online courses aligned to state content standards and district curricula

Student enrollment in online courses for credit recovery or original credit will be approved, managed, and coordinated through the Supervisor of Student and Staff Services with the approval of Instructional Services.

## Dual Enrollment Guidelines

Seniors approved for the NCCVT Dual Enrollment Program may take DTCC courses either in district school buildings or DTCC campus. Tuition and books for these courses will be paid for by the district. Additionally, students are encouraged to take advantage of summer and/or after-school college course opportunities at their own expense to earn dual credit. These courses must be pre-approved by the student's school counselor and can be offered at a college or university other than DTCC.

- **Only credit-bearing college courses will be accepted for dual enrollment credit. Remedial college courses will not be approved.**
- **Prerequisites for Dual Enrollment at DTCC:**
  - Students must be academically sound (3.0 cumulative GPA by the end of junior year) and on track to graduate (no outstanding failures).
  - Students must complete established DTCC procedures for admission.
  - The school district will pay to DTCC all applicable tuition and fees for each student enrolled in the DTCC course.
  - The school district will provide funding for required books. *(Textbooks need to be returned.)*
- **Courses necessary for graduation must be taken during the first semester.** Students who fail a college course needed for high school graduation will be required to take a credit recovery course second semester.
- **Students are allowed to drop a course during the first week only.** Students dropping a course will be placed in academic courses at their high school and will be required to make up the work missed. **Students dropping a course AFTER the one-week window will be required to pay for the course and fees.**
- **Students who withdraw after the first week with the knowledge of the counselor will receive a W on the NCCVT transcript for the course. Students who withdraw WITHOUT the counselor's knowledge will receive an F on the NCCVT transcript.**
- **Students may take more than one DTCC course per semester during the school day only if scheduling permits, the school counselor approves, and the student has personal transportation.**
- **Students may take up to 2 courses per semester.**
- **Students who took a first semester course must earn at least a B to take a second semester course.**
- **Because colleges use letters instead of numbers for a grade, the high school transcript will show the highest numerical value for the letter grade.** For example, if a student receives a "B" for the course from DTCC, it would translate into an 89.

*Note: The lowest possible passing grade given at DTCC is a 75. Any grade below a 75 is failing. Students will receive an F (59) on their NCCVT transcript if they receive less than 75 on a DTCC dual enrollment course.*

- **Courses will appear on the NCCVT transcript as college courses and will be weighted the same as district Honors-level courses.**



## State of Delaware - Options for Awarding Credit Toward High School Graduation

### Title 14 Education

### 500 Curriculum and Instruction 505 High School Graduation Requirements and Diplomas

#### 8.0 Options for Awarding Credit Toward High School Graduation

**8.1** District and charter school boards are authorized to award credit toward high school graduation for the following activities, on the condition that the activities incorporate any applicable state content standards. Before awarding credit for any of the following activities, the districts and charter school boards shall have adopted a policy approving the activity for credit and establishing any specific conditions for the award of credit for the activity. Such policy shall be applicable to each school within the district or each charter high school.

8.1.1 Courses taken at or through an accredited community college, two or four-year college.

8.1.2 Voluntary community service as defined in 14 Del.C. §§8901A and 8902A.

8.1.3 Supervised work experience in the school and the community which meets the educational objectives or special career interest of the individual student.

8.1.4 Independent study.

8.1.5 Distance learning courses. These courses may be delivered by the teacher to the learner in real time, online or by video.

8.1.6 High school courses taken while in the middle school in conjunction with an articulated agreement between the district middle school and the district high school(s). Such credit shall also transfer to a high school in another district or to a charter school.

8.1.7 Course credit transferred from another high school.

8.1.8 Course credit earned through summer or evening school classes, as a member of the military service or as part of the James H. Groves Adult High School.

8.1.9 Tutoring programs taught by a teacher certified in the subject being taught.

8.1.10 Course credit awarded by agencies or instrumentalities of the state other than public schools which provide educational services to students. A description of the program provided to the student, grades given, and the number of clock hours of instruction or a demonstration of competency must be provided to the school district or charter school prior to receipt of credit.

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## Building Automation Systems

Location: Howard

### Program Description

Building Automation / Electrical Trades offers advancements in technology in the residential, commercial, industrial industry. Instruction included are electrical principles, components, meters, schematic diagrams, and systems applied to small and large equipment, also covers general principles of troubleshooting. Learning how to interpret construction drawing / schematics. Newer and more advanced technologies have created a multitude of opportunities in how we interact and communicate...and the same is true for fire alarm / security systems. This course provides an essential review on the various fire alarm systems, security systems, and tele / data computer wiring. Qualified graduates from the program will be able to receive advanced placement in the Electrical Trades Apprenticeship Program.



### Employment opportunities available after high school:

Electrician, Maintenance Electrician, (BAS) Service Technician, Security / Fire Alarm Installer, Electrical Supply Sales Representative, Tele / Data Cable Installer, Project Manager, Electrical Estimator.

### Employment opportunities requiring 2-4 years of specialized training after high school:

Electrical Engineer, Facility Management Professional (FMP), Electrical Designer.

# Building Automation Systems

Howard High School of Technology

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration		1
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1		1
3400	Integrated Math 2	1				2320	Spanish 2		1
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education		0.25
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health		0.5
3700	Statistics	1				8934	SAT/PSAT Prep		0.5
3950	Pre-Calculus*	1				9999	Academic Tutorial 10		1
						8935	SkillsUSA Prep		0.5
						1282	Building Automation Systems 1		3
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education		1
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep ELA		0.5
3950	Pre-Calculus*	1				8921	SAT Math Prep		0.5
3980	Calculus	1				99991	Academic Tutorial 11		1
Science (S)			Social Studies (SS)						
4300	Biology	1	5400	US History	1	1283	Building Automation Systems 2		3
4400	Integrated Science	1	5350	Economics	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	6748	Employment Seminar		1
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3		0.25
3980	Calculus	1		Western European Literature*		99992	Academic Tutorial 12		1
3880	Senior Math	1				1284	Building Automation Systems 3		4
			2619	Co-op ELA 4	1	1000	Cooperative Education		1
			2640	ELA 4: Contemp. Ethics	1				
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## CARPENTRY

Location: Delcastle, Hodgson, Howard, St. Georges

### Program Description

Today, as in the past, the carpenter is a highly respected craftsman. Carpenters must have the ability to work not only with wood but also with aluminum, steel, vinyl, synthetics, and composition materials. They are involved in the construction and renovation of buildings in which people live, work, and play. They lay out, cut, fit, fasten, and erect the superstructure, partitions, and floors of buildings and homes. In addition, carpenters fit and install doors, windows, moldings, cabinets, and stairways. They must be skilled with hand tools, power tools, and other portable equipment. Their skills are so valued that they are members of the largest group of building trade workers. Carpentry is active and strenuous work that may be performed in and out of doors. Someone who is active, creative, and likes to build will find this a rewarding career. Advanced placement in the Trade Apprenticeship Program is available for qualified graduates through NCCER Level I.

### Employment opportunities available after high school graduation:

Form Builder, Drywall Installer, Maintenance, Floor Covering Installer, Roofers, Installation Worker, Building Supply Sales, Scaffolding Erector

### Employment opportunities requiring apprenticeship training after high school:

Residential/Commercial Carpenter, Maintenance Carpenter, Shop Fabrication/Millwork



# CARPENTRY

Delcastle Technical H.S.    Hodgson Voc. Technical H.S.    Howard High School of Technology    St. Georges Technical H.S.

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration		2
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)		1
3400	Integrated Math 2	1				8210	Physical Education		0.5
3500	Integrated Math 3	1				8310	Health		0.5
						2310	Spanish 1		1
						2320	Spanish 2		1
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education		0.25
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education		0.5
3700	Statistics	1				8310	Health		0.5
3950	Pre-Calculus*	1				2310	Spanish 1		1
						2320	Spanish 2		1
						9999	Academic Tutorial 10		1
						8710	Career & College Readiness Seminar		0.25
						8934	SAT/PSAT Prep		0.5
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1222	Carpentry 1		3

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education		1
3700	Statistics	1	2235	Honors ELA 3*	1	99991	Academic Tutorial 11		1
3950	Pre-Calculus*	1				2310	Spanish 1		1
3980	Calculus	1				2320	Spanish 2		1
						8920	SAT Prep ELA		0.5
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	8921	SAT Prep Math		0.5
4500	Chemistry*	1				1223	Carpentry 2		3
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2		1
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3		1
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		7408	Technical Applications		1
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership		1
			2640	ELA 4: Contemp.	1	9803	Jobs for Delaware Graduates 3		0.25
				Ethics		9890	Senior Seminar		1
						1224	Carpentry 3		3
						1000	Cooperative Education		1
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	—				

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## ELECTRICAL TRADES

Location: Delcastle, Hodgson, St. Georges



### Program Description

**Electrical Trades** offers instruction on electrical systems for residential, commercial, and industrial installations that are assembled, installed, wired, and maintained by electricians. Students also have the opportunity to study photovoltaic systems. Installers must follow blueprints and specifications. They are required to bend, fit, and install conduit, fish cable inside partitions, walls, or other concealed areas, mount outlet boxes that will house electrical devices such as switches, and complete the necessary wiring installation. When the final wiring is finished, they test the circuits for proper connections. Maintenance electricians keep lighting systems, transformers, generators, and other electrical equipment in good working condition. Electricians may work with electrical contractors as installers or with manufacturing plants in maintenance. Public utilities, mines, railroads, and the government employ large numbers of electricians. Job opportunities are expected to grow for

residential, commercial, and industrial electricians as the use of electrical and electronic equipment by industry increases. Advanced placement in the Trade Apprenticeship Program is available for qualified graduates through NCCER Level I.

### Employment opportunities requiring apprenticeship training after high school:

Electrician, Electrician Maintenance, Electrical Drafter, Alarm/Fire Alarm Installer, Electrical Supply, Tele/Data Wiring, Service Technician, Project Manager, Estimator

### Employment opportunities requiring 2-years of specialized training after high school:

Construction Manager, Electrical Designer

# ELECTRICAL TRADES

Delcastle Technical H.S.    Hodgson Voc. Technical H.S.    St. Georges Technical H.S.

GRADE 9								
Math (M)			English (ELA)			VOCATIONAL / OTHER COURSES		
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5
3400	Integrated Math 2	1				8310	Health	0.5
3500	Integrated Math 3	1				2310	Spanish 1	1
						2320	Spanish 2	1
Science (S)			Social Studies (SS)					
4200	Physical Science	1	5200	Global Studies	1			

Grade 10								
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8210	Physical Education	0.5
3700	Statistics	1				2310	Spanish 1	1
3950	Pre-Calculus*	1				2320	Spanish 2	1
						8710	Career & College Readiness Seminar	0.25
Science (S)			Social Studies (SS)			1232	Electrical Trades 1	3
4300	Biology	1	5350	Economics	1			

Grade 11								
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1
3950	Pre-Calculus*	1						
3980	Calculus	1						
Science (S)			Social Studies (SS)			1233	Electrical Trades 2	3
4400	Integrated Science	1	5400	US History	1			
4500	Chemistry*	1						
4600	Physics*	1						

Grade 12								
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1
3980	Calculus	1		Western European Literature*		7411	Technical Applications	1
3880	Senior Math	1		Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1
			2619	ELA 4: Contemp. Ethics	1	9890	Senior Seminar	1
						1234	Electrical Trades 3	3
						1000	Cooperative Education	1
Science (S)			Social Studies (SS)					
4500	Chemistry*	1	5500	World History*	1			
4600	Physics*	1	5600	Contemp. Cit.	1			
4700	Environmental Sc.	1	5820	Intro. to Sociology	—			

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

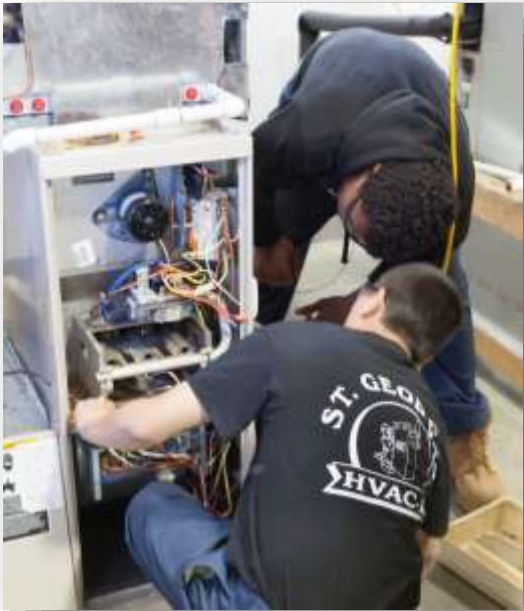


## HEATING, VENTILATION & AIR CONDITIONING

Location: Delcastle, St. Georges

### Program Description

**Heating, ventilation, and air conditioning** mechanics install, repair, and maintain a variety of cooling and heating equipment, ranging from small residential units to major commercial/industrial systems. After installation, mechanics charge systems and are responsible for routine maintenance and repair. The HVAC program covers training on the installation of refrigerant piping, electrical power wiring, temperature control and monitoring devices, as well as the interpretation of blueprints, design specifications, and electrical schematics, and the interpretation of E.P.A. refrigerant laws. As central air conditioning has become more common in homes and the standard at work sites, the field of HVAC has grown. Locally, the number of available positions far exceeds the number of qualified mechanics. Advanced placement in the Trade Apprenticeship Program is available for qualified graduates through NCCER Level I.



### Employment opportunities available after high school graduation:

Air Conditioning Installer, Evaporative-Cooler Installer, Furnace Installer, Oil Burner Installer and Service, Sheet Metal Duct Installer

### Employment opportunities requiring apprenticeship training after high school:

Air & Hydronic Balancing Technician, Building Automation Technician, HVAC Service Technician, Heat Pump & Geothermal & Air Technician, Refrigeration Mechanic, Refrigeration Unit Repairer

### Employment opportunities requiring 2-years of specialized training after high school:

Indoor Air Quality Inspector

# HEATING, VENTILATION & AIR CONDITIONING

Delcastle Technical High School      St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				8710	Career & College Readiness Seminar	0.25	
3950	Pre-Calculus*	1							
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1212	HVAC 1	3	

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				7866	Related Math	0.5	
3980	Calculus	1							
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	1213	HVAC 2	3	
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*		7411	Technical Applications	1	
3880	Senior Math	1		Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2619	ELA 4: Contemp. Ethics	1				
			2640		1				
						1214	HVAC 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	1				

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## INDUSTRIAL MECHANICS/MILLWRIGHT TECHNOLOGY

Location: Hodgson

### Program Description

This program provides training in multiple craft skills needed to repair and maintain mechanical equipment, rotating equipment, and plant systems. Industrial Mechanics/Millwrights perform maintenance, troubleshooting, and installations of power transmission systems, machinery, and piping, pump, and conveyor systems. The program involves the utilization of blueprints, field sketches, repair manuals, and CMMS systems. Students will study the fundamentals of pipefitting, welding and burning, layout and metal fabrication, machining, rigging, power transmission systems, pumps, shaft alignments, fluid power and machinery design and repairs, all from a maintenance and repair perspective. Advanced placement in the Trade Apprenticeship Program is available for qualified graduates through NCCER Level I.

### Employment opportunities available after high school graduation:

Building Maintenance Technician

### Employment opportunities requiring apprenticeship training after high school:

Industrial Maintenance Technician/Millwright, Machinery Repair Technician, Maintenance Planner, Packaging Technician, Research & Design Technician

### Employment opportunities requiring 2-years of specialized training after high school:

Maintenance Contract Administrator, Mechanical Engineering Technology, Process Piping, Industrial Maintenance

### Employment opportunities requiring 2-years of specialized training and apprenticeship:

Construction Superintendent, Maintenance Supervisor/Manager



# INDUSTRIAL MECHANICS/MILLWRIGHT TECHNOLOGY

Hodgson Vocational Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8310	Health	0.5	
3400	Integrated Math 2	1				8210	Physical Education	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	1	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						1292	Industrial Mechanics/Millwright 1	2	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1				

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1293	Industrial Mechanics/Millwright 2	3	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	6740	Emp. Sem/Bus. Ownership	0.5	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	7408	Technical Applications	0.5	
3980	Calculus	1		Western European Literature*		9890	Senior Seminar	1	
3880	Senior Math	1		Co-op ELA 4	1				
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1	1294	Industrial Mechanics/Millwright 3	3	
						1000	Cooperative Education	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.		5810	Intro. to Sociology	0.5				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## MASONRY

Location: Hodgson

### Program Description

**Masons** build walls, partitions, fireplaces, and other structures with brick, concrete, and other masonry materials. Masons use hand tools such as trowels, brick hammers, levels, chisels, and rules. Power saws are often used for cutting and fitting bricks and other masonry materials as specified by blueprints. Masons derive satisfaction and pride from the permanent structures they build in and around the community. People who enjoy working outdoors in a highly active and physically challenging setting with above average earnings will profit from a career in Masonry. The Masonry course of study encompasses the tools and techniques of bricklaying, concrete work and stonework. Students will be expected to purchase work clothes and some tools and supplies. Advanced students specialize and obtain practical experience working on actual building sites.

Advanced placement in the Trade Apprenticeship Program is available through NCCER Level I.



### Employment opportunities available after high school graduation:

Bricklayer, Stucco and Concrete Paver

### Employment opportunities requiring apprenticeship training after high school:

Bricklayer, Fire Brick Installer, Marble & Tile Setter, Stone Mason, Masonry Maintenance

### Employment opportunities requiring 2-years of specialized training after high school:

Construction Manager

# MASONRY

Hodgson Vocational Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8310	Health	0.5	
3400	Integrated Math 2	1				8210	Physical Education	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						1242	Masonry 1	2	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2320	Spanish 2	1	
3700	Statistics	1	2235	Honors ELA 3*	1				
3950	Pre-Calculus*	1							
3980	Calculus	1				1243	Masonry 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	9890	Senior Seminar	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	6740	Emp. Sem/Bus. Ownership	0.5	
3980	Calculus	1		Western European Literature*		7408	Technical Applications	0.5	
3880	Senior Math	1		Co-op ELA 4	1	1244	Masonry 3	3	
			2640	ELA 4: Contemp. Ethics	1	1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5810	Intro. to Sociology	0.5				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## PLUMBING

Locations: Delcastle, Hodgson, St. Georges

### Program Description

**Plumbers** and pipe fitters install pipe systems that carry water, steam, air, or other liquids or gases. They also maintain, alter, and repair existing piping systems and install plumbing fixtures, appliances, and heating equipment. Workers measure, bend, cut, and thread pipes; they then bolt, braze, solvent weld, screw, or solder them together. They install and connect pipes and fittings according to the instructions on blueprints or shop drawings and may have to drill holes in ceilings, floors, and walls, or hang steel supports from ceilings to position the pipes properly. Good plumbers use their minds as well as their hands since accurate computing, estimating, planning, and measuring are all integral requirements for this career. Plumbers may work for private contractors, industrial maintenance departments and the government, or they may be self-employed. The work is strenuous and active, but plumbers enjoy earnings well above the average wage earner, and the employment is good, which makes this career area an excellent choice.

Advanced placement in the Trade Apprenticeship Program is available for qualified graduates through NCCER Level I.

### Employment opportunities available after high school graduation:

Plumbing Supply House Worker, Plumbing Maintenance, Plumbing Helper, Sprinkler Fitting

### Employment opportunities requiring apprenticeship training after high school:

Plumber, Pipe Fitter, Pipe Fitter Maintenance, Sprinkler Fitter, Commercial Building Maintenance



# PLUMBING

Delcastle Technical High School    Hodgson Vocational Technical High School    St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL / OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8310	Health	0.5	
3400	Integrated Math 2	1				8210	Physical Education	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						8710	Career & College Readiness Seminar	0.25	
						1252	Plumbing 1	3	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2619	Co-op ELA 4	1				
3980	Calculus	1							
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1				1253	Plumbing 2	3	

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*					
3880	Senior Math	1				9890	Senior Seminar	1	
			2619	Co-op ELA 4	1	7411	Technical Applications	___	
			2640	ELA 4: Contemp. Ethics	1	6740	Emp. Seminar/Bus. Ownership	___	
Science (S)			Social Studies (SS)						
						1254	Plumbing 3	3	
4500	Chemistry*	1	5500	World History*	1	1000	Cooperative Education	1	
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	—				

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			



## SHEET METAL FABRICATION

Location: Delcastle

### Program Description

**Sheet Metal** workers make and install sheet metal ducts for air conditioning, heating, and ventilating systems, kitchen equipment and counters, as well as stamped metal for roofing, siding, downspouts, and gutters. They also make and install machine guards, restaurant and hospital equipment, brewery and dairy equipment, metal partitions and lockers, cabinets and shelving, lab and air filtering equipment, storefronts, and heat reclaiming equipment. They are employed in the following industries: construction, aircraft, space, shipbuilding, sign

making, and solar energy. Sheet metal workers may elect to specialize in shop work, on-site installation, or may choose to do both. Working from blueprint specifications, sheet metal workers measure, cut, bend, shape, and fasten pieces of sheet metal to various foundations. Their tools include tapes, steel rulers, hand shears, hacksaws, power saws, drills, hammers, heavy steel presses, punches, and power shears. Sheet metal work is generally less seasonal than other construction work because most of the work is done inside. Advanced placement in a Trade Apprenticeship Program is available for qualified graduates through NCCER Level I.



### Employment opportunities requiring apprenticeship training after high school:

Metal Building Assembler, Sheet Metal Worker, Boilermaker, Sign Erector and Repairer, Coppersmith, Sheet Metal Duct Installer

### Employment opportunities requiring 2-years of specialized training after high school:

HVAC Systems Drafter

# SHEET METAL FABRICATION

Delcastle Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.5	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1							
3950	Pre-Calculus*	1							
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1262	Sheet Metal 1	3	

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1263	Sheet Metal 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European					
3880	Senor Math	1		Literature*		7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp.	1				
				Ethics					
						1264	Sheet Metal 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro. to Sociology	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**      ELA = 4 credits, to include ELA 2      SS = 3 credits, to include U.S. History      Health = 0.5 credits  
 Vocational = 10 credits      M = 4 credits, to include IM 3      S = 3 credits, to include Biology      Phys. Ed. = 1.0 credits  
 World Language = 2 credits

## WELDING/FABRICATION TECHNOLOGIES

Location: Delcastle

### Program Description:

**Welding** is the process of joining similar metals using a high-intensity electric arc. The arc melts and fuses the base metals. In most cases, a filler metal is melted along with the base metal in order to strengthen the joint. The finished product is as strong as, or even stronger than, the base metals that have been joined. Students will receive training in all welding and cutting processes, as well as CAD training, to educate them with the various types of fabrication and welding equipment used in industry.

Qualified welders are in high demand all over the world. Typically, welding tasks may include working in heavy construction; joining pipe sections for oil and natural gas pipelines; building ships; and working in a variety of industrial environments, such as power plants, refineries, chemical plants, and manufacturing facilities. This demand, the high-skill requirements, and the working conditions, which are often difficult, combine to make the earnings in the welding field above average to excellent.

**Advanced placement in a Trade Apprenticeship Program is available for qualified Graduates through NCCER Level I.**

### Employment opportunities requiring apprenticeship training after high school:

Pipe Welder, Pipe Fitter, Structural Steel Welder, Steel Fabricator, Iron Worker, Maintenance Welder, Construction Welding, Ornamental Metals Welder, CNC Equipment Operator



# WELDING/FABRICATION TECHNOLOGIES

Delcastle Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1							
3950	Pre-Calculus*	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	1272	Welding 1	3	

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1263	Welding 2	3	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*					
3880	Senior Math	1				7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp. Ethics	1	1274	Welding 3	3	
						1000	Cooperative Education	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro. to Sociology	1				
4700	Environmental Sc.	1							

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## ACADEMY OF MANUFACTURING AND PRE-ENGINEERING

Location: Hodgson

### Program Description

The Academy of Manufacturing & Engineering, using Project Lead the Way engineering curricula, offers a three-year comprehensive training program, emphasizing current manufacturing and engineering technology. Students with a strong interest in math, science, and computerized systems will find the curriculum stimulating with its blend of computer-aided design, CNC machining, statistical process control, software applications, robotics, hydraulics, and engineering. Students also receive training in team building, safety practices, business ethics, and employability skills with all the professional tools necessary to train for the field of manufacturing or entry into a two-year



engineering program. Academy facilities include networked computer stations, a machine technology lab, and a lab complete with robotics programming stations. CAD/CAM software applications are available through multiple workstations. The Principles of Engineering course includes the use of various mechanical systems, a tensile strength analyzer with computer feedback, and electro-mechanical systems that operate using computer control via a programming language. Industry certification in Pre-Engineering and /or Robotics is offered through the Robotics Education & Competition Foundation.

#### **Employment opportunities available after high school graduation:**

CNC Machine Tool Programmer, CNC Machinist.

#### **Employment opportunities requiring 2 years of specialized training after high school:**

Mechanical Engineering Technician, Electrical and Electronics Engineering Technician, Aerospace Engineering and Operations Technician, Electromechanical Technician

#### **Employment opportunities requiring Bachelor's degree:**

Computer Systems Analyst, Robotics Engineer, Electrical Engineer, Mechanical Engineer

# ACADEMY OF MANUFACTURING & PRE-ENGINEERING

Hodgson Vocational Technical High School

GRADE 9									
Math (M)				English (ELA)			VOCATIONAL/OTHER COURSES		
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8310	Health	0.5	
3400	Integrated Math 2	1				8210	Physical Education	0.5	
3500	Integrated Math 3	1							
Science (S)				Social Studies (SS)					
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
Science (S)				Social Studies (SS)					
4300	Biology	1	5350	Economics	1	7640	Intro to Engineering and Design (PR)	1	
						7630	Principles of Engineering (PR)	1	
						1352	Manufacturing & Pre-Engineering 1	1	

Grade 11									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1							
Science (S)				Social Studies (SS)					
4400	Integrated Science	1	5400	US History	1	7650	Digital Electronics	1	
4500	Chemistry*	1				7660	Computer Integrated Manufacturing	1	
4600	Physics*	1				1353	Manufacturing & Pre-Engineering 2	1	

Grade 12									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3700	Statistics	1	2610	ELA 4: Short Story	1	2310	Spanish 1	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2320	Spanish 2	1	
3980	Calculus	1		Western European Literature*		7408	Technical Applications	0.5	
3880	Senior Math	1				6740	Emp. Seminar/Bus. Ownership	0.5	
			2619	Co-op ELA 4	1	9890	Senior Seminar	1	
			2640	ELA 4: Contemp. Ethics	1	7670	Engineering Design & Development	1	
						1354	Manufacturing & Pre-Engineering 3	1	
						1000	Cooperative Education	1	
Science (S)				Social Studies (SS)					
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	-				

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## BIOTECHNOLOGY

Location: St. Georges

### Program Description

The **Biotechnology** career program provides students with the opportunity to be challenged by and to master the science and math skills required for acceptance into bioscience programs at competitive post-secondary educational programs. Students will have opportunities to master advanced content in biology and chemistry and to master basic laboratory techniques and procedures, as well as opportunities to maintain and operate the more common instruments and equipment used in a biotechnology laboratory. Mastery of proper safety procedures, cleanliness, precision, and care when performing laboratory operations will be expected of all students. They will be expected to accurately analyze scientific information and data and to present facts and ideas graphically, orally, and in writing at a quality level consistent with generally accepted standards of the biotechnology community. Students entering the program must be aware of the academic expectations associated with success both in the program and in the biotechnology industry and must be aware that a demonstrated mastery of science and math content standards will be necessary for success in the program. While it is expected that entry-level, laboratory technician positions will be available to highly qualified program completers, students should be aware that completion of a post-secondary program in biotechnology, at least at the technical/community college level, is often required for entry-level positions in this field and that upward career mobility in the biotechnology industry will require a minimum of a Bachelor's Degree.

### Employment Opportunities requiring 2-years of specialized training after high school:

Lab Technician



# BIOTECHNOLOGY

St. Georges Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career and Transition	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				8710	Career & College Readiness Seminar	0.25	
3950	Pre-Calculus*	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	1332	Biotechnology 1	3	

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	8220	Physical Education	0.5	
3700	Statistics	1	2235	Honors ELA 3*	1	2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
3980	Calculus	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European Literature*					
3880	Senior Math	1							
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1	1334	Biotechnology 3	3	
						1000	Cooperative Education	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*		5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	—				

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits



## CHEMICAL LABORATORY TECHNOLOGY

Location: Delcastle

The **Chemical Laboratory Technology** program is designed to prepare students to perform basic chemistry laboratory techniques, relate theoretical concepts to laboratory techniques, perform stoichiometric calculations common to chemistry laboratory work, maintain and operate the more common instruments and equipment used as tools of analysis or synthesis, inventory, order and store chemical supplies, and demonstrate proper safety procedures, cleanliness, precision, and care when performing laboratory operations. In addition, students are expected to be able to interpret, analyze, and interpret facts and ideas graphically, orally, and in writing upon completing the course. Chemical Lab Technologists work with chemicals and chemical engineers to develop, sell, and utilize chemicals, related products, and equipment. This career program can be the first step toward a chemical lab



technologist position at above-average income or provide excellent preparation for continuing education. Chem Lab students are able to earn college credit through Agreements with DTCC. Credit for DelTech's Chemical Principles 150 and 151 (10 Chemistry credits) will be given to students who finish the laboratory exercises and complete the program with a B average.

### Employment opportunities during high school:

Co-op Internship at University of Delaware (summer)

### Employment opportunities requiring 2-years of specialized training after high school:

Chemical Lab Technician, Environmental Technician, Chemical Processor, Environmental Health Technician, Associate Industrial Engineer, Vet Technician, Crime Scene Assistant Analyst

### Employment opportunities requiring 4-year degree or more:

Chemist, Plant Scientist, Environmental Scientist, Laboratory Scientist, Industrial Engineer, Secondary Science Teacher, Hydrologist, Forensic Scientist, Pharmacist, Epidemiologist, Biochemist, Research Scientist

# CHEMICAL LABORATORY TECHNOLOGY

Delcastle Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						7710	Anatomy & Physiology	0.5	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1322	Chem Lab 1	2	

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1323	Chem Lab 2	2	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		7412	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp.	1				
				Ethics		7740	Organic Chemistry (PR)	1	
						1324	Chem Lab 3	2	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro. to Sociology	—				
4700	Environmental Sc.	1							
4350	Advanced Biology*	1							

(PR) Denotes a program requirement

\* Denotes prerequisites must be met in order to enroll.

## Graduation Requirements:

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## TECHNICAL DRAFTING & DESIGN

Locations: Delcastle, Hodgson, St. Georges

### Program Description

**Technical Drafting** is designed to develop the skills for one or more engineering drawing specialties. Students start with basic drafting procedures and techniques coupled with a general exploration of the field. Specialization in areas such as architectural drafting, civil engineering, piping schematics, machine design and other disciplines are encouraged in the third year. This program may be used to prepare for entry-level work or post-secondary training. In preparing drawings, students use computers, compasses, dividers, parallel edges, scales, triangles, and 3-D modeling. Computer drafting techniques include AutoCAD, Architectural Desktop, Inventor, Revit, Solidworks, Soft Plan, 3D Studio, and Auto-Desk Design Academy. Technical handbooks, tables and calculators are also used to help solve problems.

### Employment opportunities available after high school graduation:

Detailer, CAD Operator & Drafter in the following fields: Architecture, Aeronautical/Electrical/Civil/Structural/Mechanical Engineering, Printed Circuit Design, Tool & Die, Landscape Design, Patents, Machine Design



# TECHNICAL DRAFTING & DESIGN

Delcastle Technical High School    Hodgson Vocational Technical High School    St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL / OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						8710	Career & College Readiness Seminar	0.25	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	1312	Technical Drafting 1	3	

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1	1313	Technical Drafting 2	3	
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*					
3880	Senior Math	1	2619	Co-op ELA 4	1	7411	Technical Applications	—	
			2640	ELA 4: Contemp. Ethics	1	6740	Emp. Seminar/Bus. Ownership	—	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1	1314	Technical Drafting 3	3	
4600	Physics*	1	5600	Contemp. Cit.	1	1000	Cooperative Education	1	
4700	Environmental Sc.	1	5820	Intro. to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## AUTO BODY

Locations: Delcastle, Hodgson



### Program Description

**Auto Body** provides students with exposure and training in the major aspects of auto body repair, including replacement and repairing of body sheet metal parts, estimating, detailing R+I operation, tear-down and reassembly procedures, and preparation and application for refinishing of new and damaged sheet metal parts. Projects will provide students with hands-on

experience in collision estimating, replacement or repairing of body trim parts or accessories, and the complete overall refinishing of cars. Opportunities also exist for students to be trained in estimating using the CCC software available in the Auto Body career area. This type of work requires the intelligence and skill of an artisan because these functions will never be completely replaced by a machine. Auto body and refinishing technicians are typically employed in new car dealerships and independent body shops. Excellent opportunities also exist in many related fields and businesses, such as insurance companies, paint manufacturers and suppliers, and auto parts sales. Body and refinishing technicians often work with minimal supervision or assistance, which provides challenges and pride of accomplishment with each completed job.

**Qualified students will test for certification through the I-CAR-PDP-EE program.**

### Employment opportunities available after high school graduation:

Auto Body Technician, Frame Technician, Refinish Technician, Auto Body Customizer, Used Car Renovator, Automotive Detailer, Aircraft Refinisher, Truck Body Builder, Physical Damage Appraiser, Auto Body Estimator, Assembly and Tear-Down Technician, Parts Manager, Production Manager

# AUTO BODY

Delcastle Technical High School Hodgson Vocational Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL / OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						1412	Auto Body 1	3	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				
Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1413	Auto Body 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							
Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors Western European Literature*	1	2330	Spanish 3	1	
3980	Calculus	1							
3880	Senior Math	1				7411	Technical Applications	—	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	—	
			2640	ELA 4: Contemp. Ethics	1	9890	Senior Seminar	1	
						1414	Auto Body 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**  
 Vocational = 10 credits  
 World Language = 2 credits

ELA = 4 credits, to include ELA 2  
 M = 4 credits, to include IM3

SS = 3 credits, to include U.S. History  
 S = 3 credits, to include Biology

Health = 0.5 credits  
 Phys. Ed. = 1.0 credits

## AUTO TECHNOLOGY

Locations: Delcastle, Hodgson, St. Georges

### Program Description

Many auto technicians consider the quick and accurate diagnosis of “hard to find” trouble as one of their most challenging and satisfying responsibilities. To do this requires good reasoning ability, the willingness to do a job thoroughly and accurately, and a thorough knowledge of the automobile. Auto Technology is the program in which students can acquire and apply the knowledge, skills, and work ethic needed to become a successful auto technician. Most technicians perform a variety of repairs; however, some elect to specialize in one area such as front-end alignment, automotive electrical systems, transmissions, automotive machine shop, auto air conditioning, engine overhaul, or tune-up. Test-driving, using sophisticated diagnostic equipment, making an accurate diagnosis, and pricing and communication with customers are all things a successful auto technician must be able to do. Jobs are plentiful throughout Delaware. Wages generally are above average, depending on the skill level of the technician. Many work situations will require service people to have their own tools and certification. Automobile fleet service dealers, independent repair facilities, and construction companies are just a few of the employers of skilled technicians. Qualified students may test for ASE/G-1 certification.

### Employment opportunities available after high school graduation:

Automobile Technician, Engine Performance Specialist, Drivability Specialist, Automobile Electrical Specialist, Diesel Technician, Front Suspension Technician, Brake Technician, Automobile HVAC Technician, Transmission Technician, Automotive Parts Specialist

### Employment opportunities requiring related work experience after high school graduation:

Automotive Service Manager, Automotive Service Manager/Service Advisor



# AUTO TECHNOLOGY

Delcastle Technical High School    Hodgson Vocational Technical High School    St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL / OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration (CT)	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						8710	Career & College Readiness Seminar	0.25	
						786x	Related Math	.05	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1422	Auto Tech 1	3	

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1							
						1423	Auto Tech 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*					
3880	Senior Math	1	2619	Co-op ELA 4	1	9890	Senior Seminar	1	
			2640	ELA 4: Contemp. Ethics	1	7411	Technical Applications	—	
						6740	Emp. Seminar/Bus. Ownership	—	
						1424	Auto Tech 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits



## AUTO/DIESEL TECHNOLOGY

Locations: Howard

### Program Description

Many auto technicians consider the quick and accurate diagnosis of “hard to find” trouble as one of their most challenging and satisfying responsibilities. To do this requires good reasoning ability, the willingness to do a job thoroughly and accurately, and a thorough knowledge of the automobile. Auto/Diesel Technology is the program in which students can acquire and apply the knowledge, skills, and work ethic needed to become a successful auto technician. Most technicians perform a variety of repairs; however, some elect to specialize in one area such as front-end alignment, automotive electrical systems, transmissions, automotive machine shop, auto air conditioning, engine overhaul, or tune-up. Test-driving, using sophisticated diagnostic equipment, making an accurate diagnosis, and pricing and communication with customers are all things a successful auto technician must be able to do. Jobs are plentiful throughout Delaware. Wages generally are above average, depending on the skill level of the technician. Many work situations will require service people to have their own tools and certification. Automobile fleet service dealers, independent repair facilities, and construction companies are just a few of the employers of skilled technicians. Qualified students may test for ASE/G-1 certification.

### Employment opportunities available after high school graduation:

Automobile Technician, Engine Performance Specialist, Drivability Specialist, Automobile Electrical Specialist, Diesel Technician, Front Suspension Technician, Brake Technician, Automobile HVAC Technician, Transmission Technician, Automotive Parts Specialist

### Employment opportunities requiring related work experience after high school graduation:

Automotive Service Manager, Automotive Service Manager/Service Advisor



# AUTO/DIESEL TECHNOLOGY

Howard High School of Technology

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL / OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration		1
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1		1
3400	Integrated Math 2	1				2320	Spanish 2		1
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education		0.25
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health		0.5
3700	Statistics	1				8934	SAT/PSAT Prep		0.5
3950	Pre-Calculus*	1				9999	Academic Tutorial 10		1
						1451	Auto Diesel Technology 1		3
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8210	Physical Education		1
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep		0.5
3950	Pre-Calculus*	1				8921	SAT Prep Math		0.5
3980	Calculus	1				99991	Academic Tutorial 11		1
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	1452	Auto Diesel Technology 2		3
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	6748	Employment Seminar		1
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3		0.25
3980	Calculus	1		Western European Literature*		99992	Academic Tutorial 12		1
3880	Senior Math	1		Co-op ELA 4	1				
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1				
						1453	Auto Diesel Technology 3		3
						1000	Cooperative Education		1
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## AVIATION TECHNOLOGY

Location: Delcastle

Students in **Aviation Technology** learn to inspect, repair, service, and overhaul aircraft. Attention is given to scheduled maintenance following a timetable based upon the number of hours flown and to specialization in repair work. The program is based upon the Federal Aviation Administration (FAA) requirements for the aviation mechanic license. To be federally licensed, a student must pass the FAA written, oral, and practical examinations. The field of aviation requires a person of high professional standards willing to accept responsibility for human lives that depend on his/her professional expertise. Essential skills include coordinating work with others; operating equipment; using tools; maintaining, inspecting, repairing, and installing parts; following written and oral instructions; keeping records; analyzing, interpreting, and evaluating data; exhibiting attention to detail; and working with computers.

### Employment opportunities available after high school graduation:

Aviation Parts Distribution/Procurement Technician, Aviation Field Technician, Ground Service Technician, Reclamation Worker, Helicopter Technician, Overhaul Technician, Flight Test Technician, Aircraft Rigging/Controls Technician, Aircraft Pressure Sealer and Tester, Aircraft Structure Technician, Aircraft Accessories/Component Repairer, Air Frame Technician, Power Plant Technician.



# AVIATION TECHNOLOGY

Delcastle Technical High School

GRADE 9									
<b>Math (M)</b>				<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>		
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>				<b>Social Studies (SS)</b>					
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>				<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>		
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1							
3950	Pre-Calculus*	1							
						1432	Aviation 1	3	
<b>Science (S)</b>				<b>Social Studies (SS)</b>					
4300	Biology	1	5350	Economics	1				

Grade 11									
<b>Math (M)</b>				<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>		
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1433	Aviation 2	3	
<b>Science (S)</b>				<b>Social Studies (SS)</b>					
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>				<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>		
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp.	1				
				Ethics					
						1434	Aviation 3	3	
						1000	Cooperative Education	1	
<b>Science (S)</b>				<b>Social Studies (SS)</b>					
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro to Sociology	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## ENGINE TECHNOLOGY

Location: Howard



### Program Description

The **Engine Technology** program provides students with the knowledge and training to maintain and repair two and four-cycle engines, chain saws, motorcycles, snowmobiles, construction equipment, lawn equipment, small farm equipment, and others. These items represent a significant portion of the mechanical fields requiring qualified technicians of tomorrow. Students in this program will gain hands-on experience in mechanical technology with concentrations in industry safety, basic hand tools, engine dynamics (two and four-cycle), diesel engine technology, basic mechanical troubleshooting, equipment repair and maintenance (outdoor power, construction, motorcycle), basic transmission/pneumatics, parts

management, small business management (overview), customer relations, employability/interpersonal skills, and leadership.

**EETC certification may be obtained in 2-cycle, 4-cycle, and small-frame diesel.**

### Employment opportunities available after high school graduation:

Outdoor Power Equipment Technician, Motorcycle Subassembly Technician, Commercial Technician, Parts Management Technician, Equipment Salesperson.

### Employment opportunities requiring apprenticeship training after high school:

Construction Equipment Technician

### Employment opportunities requiring 2-years of specialized training after high school:

Motorcycle Technician, Automotive Repair Technician Specialist, Diesel Technician

# ENGINE TECHNOLOGY

Howard High School of Technology

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration	1	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1	1	
3400	Integrated Math 2	1				2320	Spanish 2	1	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health	0.5	
3700	Statistics	1				8934	SAT/PSAT Prep	0.5	
3950	Pre-Calculus*	1							
						9999	Academic Tutorial 10	1	
						1442	Engine Tech 1	3	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8210	Physical Education	1	
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep	0.5	
3950	Pre-Calculus*	1				8921	SAT Prep Math	0.5	
3980	Calculus	1				99991	Academic Tutorial 11	1	
						1443	Engine Tech 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	6748	Employment Seminar	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3	0.25	
3980	Calculus	1		Western European Literature*		99992	Academic Tutorial 12	1	
3880	Senior Math	1							
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1	1444	Engine Tech 3	4	
						1000	Cooperative Education 1		
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## COSMETOLOGY

Locations: Delcastle, Hodgson, Howard

### Program Description

**Cosmetology** is the art and science of beautifying hair, skin, and nails. Cosmetologists perform such tasks as shampoos, facials, manicures, hair coloring, permanent waving, thermal styling, chemical relaxing, and hair cutting. A successful professional cosmetologist is a talented stylist, a personal service expert, and a self-promoter, as well as a poised and confident salesperson. The professional cosmetologist may choose to work in an independent salon, a spa salon, a national franchise, or an independent chain of salons as well as hotels, hospitals, and nursing homes. Delcastle, Hodgson, and Howard each operate a salon that is open to the public. The salon setting provides students with the opportunity for hands-on experiences and prepares the student for cooperative education placement and employment. Cosmetology is a profession licensed by the State of Delaware. Students selecting the Cosmetology career program will receive instruction that provides the skills and scientific theory necessary to apply for their cosmetology license. 1500 hours of training are required for licensing, and students completing the program take the Cosmetology State Board Professional Licensing Examination.

### Employment opportunities available after high school graduation:

Cosmetologist, Manicurist, Nail Technician, Platform Artist, Hair Stylist, Make-up Artist, Colorist, Salon Owner, Industry Consultant, Barber, Cruise Line Stylist, Wig/Extensions Specialist, Desairologist

### Employment opportunities requiring 2-years of specialized training after high school:

Cosmetology Instructor



# COSMETOLOGY

Delcastle Technical High School

Hodgson Vocational Technical High School

Howard High School of Technology

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)	1	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1				2310	Spanish 1	1	
						2320	Spanish 2	1	
						8210	Physical Education	0.5	
Science (S)			Social Studies (SS)						
4200	Physical Science		5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				8310	Health	0.5	
3950	Pre-Calculus*	1				2310	Spanish 1	1	
						2320	Spanish 2	1	
						8934	SAT/PSAT Prep	0.5	
						8710	CTSO Prep	0.25	
						9999	Academic Tutorial 10	1	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1512	Cosmetology 1		

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				8920	SAT Prep	0.5	
						8921	SAT Prep Math	0.5	
						99991	Academic Tutorial 11	1	
						1513	Cosmetology 2		
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*		9803	Jobs for Delaware Graduates 3	0.25	
3880	Senior Math	1				9809	Senior Seminar	1	
			2619	Co-op ELA 4	1	6748	Employment Seminar	1	
			2640	ELA 4: Contemp. Ethics	1	7411	Technical Applications	—	
						6740	Emp. Seminar/Bus. Ownership	—	
						99992	Academic Tutorial 12	1	
						1514	Cosmetology 3		
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits



## CULINARY ARTS

Locations: Delcastle, Hodgson, Howard, St. Georges

### Program Description

**Culinary Arts** is a course of study designed to provide students with the opportunity to reach competency in major areas of food preparation. Students will be expected to work in all areas of the culinary arts field such as dining room operations, cooking, bakeshop, and pastry making. They will be expected to work individually, in groups, and in a professional kitchen brigade to experience a wide range of learning experiences in keeping with industry expectations. The food service industry is one of the nation's largest employers, and job opportunities abound for preparation cooks, garde mangers, sous chefs, executive chefs, bakers, pastry chefs, and front of the house positions including wait staff, managers, and food and beverage directors. Students who have demonstrated a mastery of the major culinary learning targets will have the opportunity to experience extended cooperative employment in their senior year. Students have the opportunity to earn ServSafe Managerial certification (a nationally recognized certification that lasts for five years) and ProStart certifications.

### Employment opportunities available after high school graduation:

Baker, Cook, Professional Wait Staff, Food Prep Worker

### Employment opportunities requiring 2-years of specialized training after high school:

Chef/Sous Chef, Consultant, Executive Chef, Food Stylist, Pastry Chef, Purveyors, Proprietor, Sanitation Consultant



# CULINARY ARTS

Delcastle Technical H. S. Hodgson Vocational Technical High School Howard High School of Technology St. Georges Technical H.S.

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration		2
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)		1
3400	Integrated Math 2	1				2310	Spanish 1		1
3500	Integrated Math 3	1				2320	Spanish 2		1
						8210	Physical Education		0.5
						8310	Health		0.5
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education		0.25
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8210	Physical Education		0.5
3700	Statistics	1				8310	Health		0.5
3950	Pre-Calculus*	1				2310	Spanish 1		1
						2320	Spanish 2		1
						7720	Nutrition Grade 10 or 11		0.5
						8934	SAT/PSAT Prep		0.5
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	8710	Career & College Readiness Seminar		0.25
						9999	Academic Tutorial 10		1
						1522	Culinary Arts 1		—
Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1		1
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2		1
3950	Pre-Calculus*	1				2330	Spanish 3		1
3980	Calculus	1				8222	Physical Education		1
						7720	Nutrition Grade 10 or 11		0.5
						8920	SAT Prep		0.5
						8921	SAT Prep Math		0.5
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	99991	Academic Tutorial 11		1
4500	Chemistry*	1				1523	Culinary Arts 2		—
4600	Physics*	1							
Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2		1
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3		1
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		9803	Jobs for Delaware Graduates 3		0.25
			2619	Co-op ELA 4	1	9809	Senior Seminar		1
			2640	ELA 4: Contemp.	1	7411	Technical Applications		1
				Ethics		6740	Emp. Seminar/Bus. Ownership		1
						6748	Employment Seminar		1
						99992	Academic Tutorial 12		1
						1524	Culinary Arts 3		—
							Serv Safe		0.5
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1	1000	Cooperative Education		1
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**      ELA = 4 credits, to include ELA 2      SS = 3 credits, to include U.S. History      Health = 0.5 credits  
 Vocational = 10 credits      M = 4 credits, to include IM 3      S = 3 credits, to include Biology      Phys. Ed. = 1.0 credits  
 World Language = 2 credits

## The Teacher Academy for EARLY CHILDHOOD EDUCATION

Location: Hodgson, St. Georges

### Program Description

**The Teacher Academy for Early Childhood Education** is designed to prepare students to enter a number of fields related to the social, emotional, physical, and intellectual care and guidance of children or to prepare them to continue their education in elementary or special education, physical or recreational therapy, social work, and pediatric nursing. Early Childhood Educators nurture young children whose parents are at work or cannot be with them for other reasons. Job duties vary according to the ages of the children, and the amount of supervision received varies with the work setting. The Early Childhood curriculum includes instruction in the planning and supervision of developmentally appropriate activities for children. Other areas of study include safety practices, first aid, human growth and development, community and social problems, basic psychology, nutrition, special needs, program management, and professionalism. Students have an opportunity to apply their skills and knowledge in the laboratory preschool. The demand for Early Childhood Education and privately-owned early learning centers is growing, and for this and other reasons, current trends indicate employment of Early Childhood educators is expected to increase. Students receive certificates in Training in Early Care & Education I & II upon graduation. Early Childhood Education students are able to earn college credit through Tech Prep Agreements with area colleges and dual enrollment and we also offer the (CDA) Child Development Associate Credential.



### Employment opportunities available after high school graduation with certificates:

Before/after-school Counselor, Summer Camp Counselor, Early Care and Education Assistant/Teacher, Home/Child Care Provider, Child Advocate

### Employment opportunities requiring specialized training after high school graduation:

Social Worker, Elementary School Teacher, Middle/Secondary Education, Early Childhood Director/Owner Operator, Para-educator, Additional careers related to children and families

## Teacher Academy for EARLY CHILDHOOD EDUCATION

Hodgson Vocational Technical High School St. Georges Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						8710	Career & College Readiness Seminar	0.25	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	1572	Early Childhood 1	3	
Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				8710	Skills USA	0.25	
3980	Calculus	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1	1573	Early Childhood 2	3	
4500	Chemistry*	1							
4600	Physics*	1							
Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*					
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp.	1	7411	Technical Applications	0.5	
				Ethics		6740	Emp. Seminar/Bus. Ownership	0.5	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1	9890	Senior Seminar	1	
4600	Physics*	1	5600	Contemp. Cit.	1	1574	Early Childhood 3	3	
4700	Environmental Sc.	1	5820	Intro to Sociology	—	1000	Cooperative Education	1	

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**      ELA = 4 credits, to include ELA 2      SS = 3 credits, to include U.S. History      Health = 0.5 credits  
 Vocational = 10 credits      M = 4 credits, to include IM 3      S = 3 credits, to include Biology      Phys. Ed. = 1.0 credits  
 World Language = 2 credits

## LEGAL ADMINISTRATIVE ASSISTANT

Location: Howard

### Program Description

Students in this program learn the core responsibilities of the legal assistant. These core duties primarily focus on performing and coordinating an office's administrative activities and ensuring that information is disseminated to staff and clients. As Legal Assistants are also responsible for a variety of administrative and clerical duties necessary to run a legal organization efficiently, students in this program receive specialized training. In addition to keyboarding and office automation involving a wide range of computer software programs, facsimile machines, transcribers, photocopiers, and telephone systems, the students also receive training in preparing various forms of legal correspondence. Preparing official legal papers such as summonses, complaints, motions, responses, and subpoenas is also covered in the curriculum. Using automated systems commonly used within a law office or judicial system, students learn how to conduct legal research. The skills learned in this program also provide the student with a great foundation and career flexibility to transfer into other specialized legal administrative assistant positions if the student wishes.



### Employment opportunities following high school graduation:

Intake clerk, office clerk, legal office receptionist, bookkeeping clerk, customer service representative, data entry keyer, billing & posting clerk, legal secretary, legal research clerk

# LEGAL ADMINISTRATIVE ASSISTANT

Howard High School of Technology

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration	1	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1	1	
3400	Integrated Math 2	1				2320	Spanish 2	1	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health	0.5	
3700	Statistics	1				8934	SAT/PSAT Prep	0.5	
3950	Pre-Calculus*	1				8935	SkillsUSA Prep	0.5	
						9999	Academic Tutorial 10	1	
						1562	Legal Admin 1	3	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1				

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education	1	
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep ELA	0.5	
3950	Pre-Calculus*	1				8921	SB and SAT Prep Math	0.5	
3980	Calculus	1				99991	Academic Tutorial 11	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1	1563	Legal Admin 2	3	
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	9803	Jobs for Delaware Graduates 3	0.25	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	99992	Academic Tutorial 12	1	
3980	Calculus	1		Western European Literature*		6748	Employment Seminar	1	
3880	Senior Math	1							
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1				
						1564	Legal Admin 3	4	
						1000	Cooperative Education	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**      ELA = 4 credits, to include ELA 2      SS = 3 credits, to include U.S. History      Health = 0.5 credits  
 Vocational = 10 credits      M = 4 credits, to include IM 3      S = 3 credits, to include Biology      Phys. Ed. = 1.0 credits  
 World Language = 2 credits

## LEGAL SUPPORT SERVICES

Location: Howard

### Program Description

The **Legal Support Services** program provides instruction in the areas of Legal Service, Law Enforcement Services, Public Safety Telecommunications, Correction Services, Security and Protective Services, and CSI (Crime Scene Investigation). Topics related to human services are also included in the curriculum. The primary goal of the program is to produce students that are prepared to enter one of the legal industry professions.

Through extensive theoretical study, practical applications, and external learning activities such as job shadowing, field trips, internships, and co-operative workplace assignments, students in the program will compile the skills that will allow them to become productive legal support service workers upon graduation. A primary goal will be for students to take advantage of the opportunity to attain national certifications that will certainly enhance their employment possibilities.



**The following are some of these national certifications:**

- National Red Cross Emergency First Aid Certification
- Emergency Tele-Communications Certification through the APCO International

## LEGAL SUPPORT SERVICES

Howard High School of Technology

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration	1	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1	1	
3400	Integrated Math 2	1				2320	Spanish 2	1	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science		5200	Global Studies	1				
Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health	0.5	
3700	Statistics	1				8934	SAT/PSAT Prep	0.5	
3950	Pre-Calculus*	1				8935	SkillsUSA Prep	0.5	
						9999	Academic Tutorial 10	1	
						1582	Legal Support Services 1	3	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1				
Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education	1	
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep ELA	0.5	
3950	Pre-Calculus*	1				8921	SAT Prep Math	0.5	
3980	Calculus	1				99991	Academic Tutorial 11	1	
						1583	Legal Support Services 2	3	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							
Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	6748	Employment Seminar	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3	0.25	
3980	Calculus	1		Western European		99992	Academic Tutorial 12	1	
3880	Senior Math	1		Literature*					
			2619	Co-op ELA 4	1	1584	Legal Support Services 3	4	
			2640	ELA 4: Contemp.	1	1000	Cooperative Education	1	
				Ethics					
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

### Graduation Requirements:

**Total = 27.5**

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits



## PRODUCTION & IMAGING TECHNOLOGY

Location: Delcastle

### Program Description

**The Production and Imaging Technology** career program at Delcastle Technical High School offers students who receive special education services an opportunity to learn and to apply principles of employability skills and customer service through the use of technology and computer assisted equipment. Students engage in learning experiences in a school-based production center that focuses on customized imaging products. This very hands-on and active program that allows student to obtain skills in embroidery, framing, engraving, copying, filing, inventory, stocking and laundry. The program provides a challenging and satisfying experience for the students as they complete a variety of daily work orders requested by the community and Delcastle and District staff. The career area also operates the Delcastle school store and is now growing herbs, flowers and vegetables in their greenhouse.

### Employment opportunities requiring apprenticeship training after high school:

Food Service Industry, Retail Industry, Customer Service, Management/Supervisory, Warehousing, Office/Clerical, Embroidering, Framing, Laundry/Cleaners, Kinkos/Staples/Printers, Graphics – engraving, Trophy Shop, Landscaping and Greenhouse



# PRODUCTION AND IMAGING TECHNOLOGY

Delcastle Technical High School

GRADE 9						
Math (M)		English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES		
9004	Math 9	9003	English 9	8210	Physical Education	0.5
				1171	Production Center 9	0
9005	Science (S) Science 9	9002	Social Studies (SS) Social Studies 9	1	-	

Grade 10						
Math (M)		English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES		
9004	Math 10	1	9003	English 10	1	8010 Health 1
						8401 Drivers Education 0.25
						1172 Production Center 10 2
9005	Science (S) Science 10	1	9002	Social Studies (SS) Social Studies 10	1	

Grade 11						
Math (M)		English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES		
9004	Math 11	1	9003	English 11	1	8210 Physical Education 1
						1173 Production Center 11 4
9005	Science (S) Science 11	1	9002	Social Studies (SS) Social Studies 11	1	

Grade 12						
Math (M)		English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES		
9004	Math 12	1	9003	English 12	1	1174 Production Center 12 3
						1000 Cooperative Education 1
9005	Science (S) Science 12	1	9002	Social Studies (SS) Social Studies 12	1	

**Graduation Requirements:**

**Total = 27.5**

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## The Teacher Academy for K12 EDUCATION

Location: Howard

### Program Description

**The Teacher Academy for K12 Education** is designed to prepare students to continue their education in elementary or special education and enter a number of fields related to the social, emotional, physical, and intellectual care and guidance of children. Observation opportunities in a variety of age and discipline settings, as well as special needs and non-classroom settings, provide practical experiences while enriching the learning. Students participate in a long-term placement during their senior year which allows for in-depth experiences in a classroom setting.

The Teacher Academy program engages students in developing a realistic understanding of teaching while exploring the importance and impact of teachers. Students will acquire the knowledge and skills needed to sustain their interest in the profession and cultivate the skills needed to be successful educators. Students will understand the rigors of a career in education and participate in classroom and field experiences which allow for in-depth experiences in a classroom setting relevant to pursuing a degree in education. The program prepares students for a variety of careers in education such as elementary teacher, secondary teacher, paraprofessional, and special education teacher.



### Employment opportunities available after high school graduation with certificates:

Before/after-school Counselor, Summer Camp Counselor, Assistant Teacher, Child Care Assistant, Child Care Worker

### Employment opportunities requiring specialized training after high school graduation:

Instructional Paraprofessional, Elementary School Teacher, Middle/Secondary Education, Elementary or Secondary School Principal, Librarian, Curriculum Director, Speech Therapist, Guidance Counselor, additional careers related to children and families

# Teacher Academy for K12 EDUCATION:

Howard High School

## Program Description

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration		1
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1		1
3400	Integrated Math 2	1				2320	Spanish 2		1
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science		5200	Global Studies	1				
Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education		0.25
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health		0.5
3700	Statistics	1				8934	SAT/PSAT Prep		0.5
3950	Pre-Calculus*	1				8935	SkillsUSA Prep		0.5
						9999	Academic Tutorial 10		1
						1292	Teacher Academy K-12 Education 1		2
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1				
Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education		1
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep ELA		0.5
3950	Pre-Calculus*	1				8921	SAT Prep Math		0.5
3980	Calculus	1				99991	Academic Tutorial 11		1
						1292	Teacher Academy K-12 Education 2		3
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							
Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	6748	Employment Seminar		1
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3		0.25
3980	Calculus	1		Western European Literature*		99992	Academic Tutorial 12		1
3880	Senior Math	1				1292	Teacher Academy K-12 Education 3		3
			2619	Co-op ELA 4	1	1000	Cooperative Education		1
			2640	ELA 4: Contemp. Ethics	1				
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

### Graduation Requirements:

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## ATHLETIC HEALTHCARE SERVICES

Location: St. Georges

### Program Description

**Athletic Healthcare Services** Students will be learning how to perform the skills needed in athletic training and therapeutic settings. Academic topics will include Anatomy/Physiology and Medical Terminology relating to the integumentary, cardiovascular, musculoskeletal, nervous, respiratory, digestive, immune genitourinary, female reproductive, endocrine, and special sensory systems and their related illnesses and injuries. Hands-on skills will focus on taping/bandaging skills, splinting, immediate care, and vital signs. Both academic topics and hands-on laboratory experiences will include medical terminology as it pertains to the prevention, evaluation, immediate care, management, rehabilitation, and administration of musculoskeletal injuries. Therapeutic modalities; such as, heat, cold, light, ultrasound, electrical stimulation, and massage will be studied as they relate to joint rehabilitation. Exercise prescription for the rehabilitation of those who are physically active will be explored in detail. The senior year of cooperative training is based on practicum experiences in the field. Students will be expected to demonstrate proficiency of the skills learned during their sophomore and junior years according to their work setting in the community. The students will use their hands-on skills while functioning as a student aid in athletic training, rehabilitation technician or aide, and/or as an asset to the business of other professions related to health care for human beings. Professionalism and employability skills will be emphasized as they relate to the health care professions. Certification by the American Red Cross in First Aid, CPR, and Adult AED is accomplished during classroom activities.

### Employment opportunities available after high school graduation:

Physical Therapy Aide, Medical Aide,  
Medical Assistant Aide

### Employment opportunities with 2-year degree:

Physical Therapy Assistant, Fitness Instructor, Personal Trainer, Allied Health Careers



# ATHLETIC HEALTHCARE SERVICES

St. Georges Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career and Transition	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				7710	Anatomy/Physiology (PR)	1	
3950	Pre-Calculus*	1				8710	Career & College Readiness Seminar	0.25	
						1672	Athletic Healthcare 1	2	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1				

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1				
3950	Pre-Calculus*	1							
3980	Calculus	1				1673	Athletic Healthcare 2	3	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		1674	Athletic Healthcare 3	3	
			2619	Co-op ELA 4	1	1000	Cooperative Education	1	
			2640	ELA 4: Contemp. Ethics	1				
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	-				

(PR denotes a program requirement.)

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits

## BIOMEDICAL SCIENCE & ALLIED HEALTH

Location: Delcastle

### Program Description

The **Biomedical Science and Allied Health** career program prepares students for healthcare careers. The Biomedical Sciences (BS) Program is a sequence of courses aligned with appropriate national learning standards, which follows a proven hands-on, real-world problem-solving approach to learning. Students explore the concepts of human medicine and are introduced to topics such as physiology, genetics, microbiology, and public health. Through activities, students examine the processes, structures, and interactions of the human body – often playing the role of biomedical professionals. They also explore the prevention, diagnosis, and treatment of disease, working collaboratively to investigate and design innovative solutions to the health challenges of the 21st century such as fighting cancer with nanotechnology. Students are introduced to various careers; such as, forensic professionals, surgical, and various allied health career paths. Students also obtain CPR and First Aid certifications. Throughout, students acquire strong teamwork and communication practices, and develop organizational, critical-thinking, and problem-solving skills. BS courses complement traditional science courses and can serve as the foundation for STEM-centered or specialized academies. The program is designed to prepare students to pursue a post-secondary education and careers in biomedical sciences. The strong emphasis on cardiology in this program enables students to qualify for certification as an Electrocardiograph Technician (EKG).



# BIOMEDICAL SCIENCES & ALLIED HEALTH

Delcastle Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)	1	
3400	Integrated Math 2	1				8210	Physical Education	0.5	
3500	Integrated Math 3	1				8310	Health	0.5	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8210	Physical Education	0.5	
3700	Statistics	1				8310	Health	0.5	
3950	Pre-Calculus*	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	7790	PLTW Principles of Biomedical Science	1	
						7791	PLTW Human Body Systems	1	

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				7792	PLTW Medical Intervention	2	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science		5400	US History	1	7794	Clinical Lab	2	
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*					
3880	Senior Math	1				7793	PLTW Biomedical Innovations	2	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1	7795	Clinical Lab	1	
4600	Physics*	1	5820	Intro to Sociology	-	1000	Cooperative Education	1	
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			



## DENTAL ASSISTING

Location: Delcastle, Hodgson, Howard

### Program Description

**Dental Assistants** work in a fast-paced, progressive healthcare profession. The Dental Assisting program addresses all the skills required for students to advance toward a wide range of health career choices. From chair-side dental assisting to dental office management, from exposing and processing dental radiographs, students will learn the skills required by dentists.

A unique aspect of this program is the fully functional dental clinic operating in each school. Students utilize hands-on experience to provide quality dental treatment to local communities. Students prepare patients for treatment, dental materials; provide oral health education, while anticipating the dentist's needs. Dental assisting students will test for the Delaware Dental Radiologic Technology Exam (DDRT) administered by the Dental Assisting National Board and Cardio-Pulmonary Resuscitation (CPR).

### Employment opportunities available after high school graduation:

Dental Assistants, Dental Laboratory Assistants, Dental Receptionist, Administrative Assistant or Office Manager, Dental Insurance Claims Processor, Public Health Worker



### Employment opportunities requiring 2 years of specialized training after high school:

Registered Dental Hygienist, Dental Product Sales Representative, Expanded Functioning Dental Assisting

### Employment opportunities requiring 4-year (Bachelors) degree:

Candidate for Dental School, Dental Instructor

# DENTAL ASSISTING

Delcastle Technical High School

Hodgson Vocational Technical High School

Howard High School of Technology

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)	1	
3400	Integrated Math 2	1				8210	Physical Education	0.5	
3500	Integrated Math 3	1				8310	Health	0.5	
						2310	Spanish 1	1	
						2320	Spanish 2	1	
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				8320	Health	0.5	
3950	Pre-Calculus*	1				2310	Spanish 1	1	
						2320	Spanish 2	1	
						7710	Anatomy and Physiology (PR)	1	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	8934	SAT/PSAT Prep	0.5	
						8935	SkillsUSA Prep	0.5	
						9999	Academic Tutorial 10	1	
						1622	Dental Assisting 1		
Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				8222	Physical Education	1	
3980	Calculus	1				8920	SAT Prep ELA	0.5	
						8921	SAT Prep Math	0.5	
						99991	Academic Tutorial 11	1	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	1623	Dental Assisting 2		
4500	Chemistry*	1							
4600	Physics*	1							
Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European		99992	Academic Tutorial 12	1	
3880	Senior Math	1		Literature*		9890	Senior Seminar	1	
			2619	Co-op ELA 4	1	9803	Jobs for Delaware Graduates 3	0.25	
			2640	ELA 4: Contemp. Ethics	1	7411	Technical Applications	1	
						6740	Emp. Seminar/Bus. Ownership	1	
						1624	Dental Assisting 3		
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	-				

(PR denotes a program requirement.)

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**  
 Vocational = 10 credits  
 World Language = 2 credits

ELA = 4 credits, to include ELA 2  
 M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History  
 S = 3 credits, to include Biology

Health = 0.5 credits  
 Phys. Ed. = 1.0 credits

## EMERGENCY MEDICAL SERVICES

Location: St. Georges



### Program Description

Training in **Emergency Medical Services** will prepare graduates to work as Emergency Care Assistants, but it may also be used as a foundation for technical/community college study in Emergency Medical Technology (paramedic) and other Allied Health professions. This course will introduce the student to the Emergency Medical Technician profession. While this course will cover the first half of the U.S. Department of Transportation Basic EMT Program, it will also allow students to

develop the skills necessary to assume entry-level employment within related positions within the medical services and public service professions. Some of these positions are with municipal and volunteer fire departments, hospitals, and public or private ambulance agencies. National Certification as an Emergency Medical Technician is attainable by students once they become eighteen years of age. A variety of topics will include: introduction to emergency care, EMS systems, well-being of the EMT, medical-legal aspects of emergency care, hazardous materials, blood and airborne pathogens, infectious diseases, ambulance operations and emergency vehicle operations, the human body, patient assessment, communications and documentation, lifting and moving patients, gaining access, airway, basic life support-CPR, and automatic external defibrillation. Students may earn First Responder Certification as well as certification in CPR/AED and First Aid; EMT certification is possible once students reach the age of eighteen.

### Employment opportunities available after high school graduation:

EMR, EMT, Firefighter, 911 Operator, Police Dispatcher, Police Officer

### Employment opportunities requiring 2-years or more of specialized training after high school:

Paramedic, Nursing, Surgical Technician, ER Doctor, ER Nurse

# EMERGENCY MEDICAL SERVICES

St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career and Transition	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				8710	Career & College Readiness Seminar	0.25	
3950	Pre-Calculus*	1				7710	Anatomy and Physiology (PR)	1	
						1662	EMS 1	2	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1				
3950	Pre-Calculus*	1							
3980	Calculus	1				1663	EMS 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European		1624	EMS 3	3	
3880	Senior Math	1		Literature*		1000	Cooperative Education	1	
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1				
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	—				

(PR) Denotes a program requirement.

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**      ELA = 4 credits, to include ELA 2      SS = 3 credits, to include U.S. History      Health = 0.5 credits  
 Vocational = 10 credits      M = 4 credits, to include IM 3      S = 3 credits, to include Biology      Phys. Ed. = 1.0 credits  
 World Language = 2 credits

## HEALTH INFORMATION TECHNOLOGY

Location: Hodgson, St. Georges

### Program Description

This program prepares individuals as **Medical Insurance Coding Specialists**. They will learn to recognize procedures performed on patients in both inpatient and outpatient settings; learn to apply appropriate medical codes to medical procedures, supplies, and diagnoses; and learn to utilize correct billing procedures, thus insuring that both insurance companies and patients make proper payment to the clinician. The program includes instruction in Medical Office Accounting Procedures, ICD-10-CM/CPT/HCPCS Coding, anatomy, medical terminology, Patient Privacy Regulations, Medical Records and Documentation, General Medical Office Procedures and medical transcription. Students will also learn to manage electronic health records. In addition, students will learn to perform basic patient-centered office/clinic procedures such as vital signs, height, and weight. Professional ethics and communication skills will also be emphasized. Students earn certification through the National Health Career Association: CBCS (Certified Billing and Coding Specialist Certification).



### Employment opportunities following high school graduation:

Medical Billing and Coding Specialist, Medical Records and health Information Technician, Medical Secretary, Health Technologists and Technicians in doctors' offices, clinics, hospitals, independent medical billing companies, and even at home as independent contractors. Coders may work their way into office management positions with experience.

# HEALTH INFORMATION TECHNOLOGY

Hodgson Vocational Technical High School

St. Georges Technical High School

GRADE 9									
Math (M)				English (ELA)			VOCATIONAL/OTHER COURSES		
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)				Social Studies (SS)					
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						8710	Career & College Readiness Seminar	0.25	
						1682	Health Info Tech 1	3	
Science (S)				Social Studies (SS)					
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1683	Health Info Tech 2	3	
Science (S)				Social Studies (SS)					
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European Literature*		9890	Senior Seminar	1	
3880	Senior Math	1		Co-op ELA 4	1	7411	Technical Applications	0.5	
			2619	ELA 4: Contemp. Ethics	1	6740	Emp. Seminar/Bus. Ownership	0.5	
			2640			1684	Health Info Tech 3	3	
						1000	Cooperative Education	1	
Science (S)				Social Studies (SS)					
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	-				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## MEDICAL ASSISTING

Location: Delcastle, Howard, and St. Georges

### Program Description

**MEDICAL ASSISTING** is a comprehensive program that prepares students for entry-level employment in a variety of health care settings. The student is trained as a generalist but may concentrate in one area of interest. The Medical Assistant who focuses on clinical aspects would assist the physician and prepare patients for examinations and procedures performed by the physician. Laboratory testing plays an important part in the detection, diagnosis and treatment of many diseases. Medical Assistants who are laboratory-oriented are the phlebotomists who collect, process, and distribute blood samples to the various laboratory stations for testing. All students perform microbiological procedures as well as electrocardiograms and urinalysis. A third area of concentration is the operation of a medical office. Telephone receptionist skills, filing, scheduling appointments, data entry computer skills, office procedures, and record keeping are included in the program of study. Depending on the size of the office, a Medical Assistant might perform all of the above duties or concentrate in one area. Medical Assistant students are given a firm foundation in medical terminology, human anatomy, and physiology, medical ethics, and interpersonal relationships, as well as clinical, laboratory and office skills. Medical assistants must maintain a professional and pleasant image as they are the persons who communicate in person or on the telephone with the public and the physicians and is often the only representative of the organization seen or heard by the public.

All students receive certification training in emergency First Aid, CPR (Adult, Child, and Infant), and AED (American Heart Association programs); in addition, students test for CCMA certification through the National Health Career Association. Medical Assisting students are able to earn college credit through Dual Enrollment with area colleges.

### Employment opportunities following high school graduation:

Doctors' offices, outpatient facilities, medical-aid facilities, hospitals, and specialist offices



# MEDICAL ASSISTING

Delcastle Technical High School

Howard High School of Technology

St. Georges Technical High School

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career and Transition	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HSST)	1	
3400	Integrated Math 2	1				2310	Spanish 1	1	
3500	Integrated Math 3	1				2320	Spanish 2	1	
						8210	Physical Education	0.5	
						8310	Health	0.5	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				8310	Health	0.5	
3950	Pre-Calculus*	1				2310	Spanish 1	1	
						8710	Career & College Readiness Seminar	0.25	
						8934	SAT/PSAT Prep	0.5	
						8935	SkillsUSA Prep	0.5	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	9999	Academic Tutorial 10	1	
						7710	Anatomy & Physiology	0.5	
						7760	Medical Terminology	0.5	
						1632	Medical Assisting 1	—	
Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				8222	Physical Education	1	
3980	Calculus	1				8920	SAT Prep ELA	0.5	
						8921	SAT Prep Math	0.5	
						99991	Academic Tutorial 11	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1	7760	Medical Terminology	1	
4500	Chemistry*	1				1633	Medical Assisting 2	—	
4600	Physics*	1						—	
Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp. Ethics	1	9803	Jobs for Delaware Graduates 3	0.25	
						99992	Academic Tutorial 12	1	
						1634	Medical Assisting 3	—	
						1000	Cooperative Education	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5

Vocational = 10 credits

World Language = 2 credits

ELA = 4 credits, to include ELA 2

M = 4 credits, to include IM 3

SS = 3 credits, to include U.S. History

S = 3 credits, to include Biology

Health = 0.5 credits

Phys. Ed. = 1.0 credits



## NURSING TECHNOLOGY

Location: Delcastle, Hodgson, Howard, St. Georges

### Program Description

The **Nursing Technology** program is designed to prepare students to develop the physical, social, and emotional characteristics necessary for a successful career in the health care industry. Specifically, the students are taught all of the skills required to become a certified nursing assistant in the state of Delaware. With classroom study, laboratory practice and at least 75 hours of clinical experience in a local nursing home, the Nursing Technology student will learn to:



- Relate the structure and function of body systems to disease processes.
- Respect resident rights and dignity.
- Communicate effectively with residents, staff, families, instructors, and other students.
- Give basic daily patient care, including bathing, dressing, feeding and toileting.
- Assist residents to walk, transfer from a bed to a chair and use a wheelchair.
- Recognize and report changes in physical and/or mental condition.
- Use infection prevention measures properly
- Monitor vital signs such as temperature, pulse, respiration and blood pressure.
- Perform basic first aid and CPR, including the use of an automated external defibrillator.
- Appreciate cultural diversity in the health care setting.
- Incorporate safety guidelines for residents and themselves when performing care.

Students will be prepared to take the Nurse Aide Certification Examination administered by Prometric at the end of their junior year. This gives them the opportunity to obtain co-operative employment in their senior year, if desired. Students who successfully complete the Nursing Technology program will have a strong foundation to assist them in choosing further education and employment in the health care field.

Employment opportunities available after high school graduation:

- Certified Nursing Assistant – Long-Term Care facility,
- Nursing Assistant in Assisted Living,
- Nursing Assistant in Acute Care,
- Home Health, Hospice, or Psychiatric Aide

Education opportunities after high school graduation:

- Specialized training for one year to become a licensed practical nurse (LPN)
- Two to four years of college to become a registered nurse
- Two to four years of college to become an allied health professional such as an X-ray technician or a respiratory therapist

# NURSING TECHNOLOGY

Delcastle Technical High School, Hodgson Vocational Technical High School, Howard High School of Technology, and St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)	1	
3400	Integrated Math 2	1				2310	Spanish 1	1	
3500	Integrated Math 3	1				2320	Spanish 2	1	
						8210	Physical Education	0.5	
						8310	Health	0.5	
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				8310	Health	0.5	
3950	Pre-Calculus*	1				2310	Spanish 1	1	
						8710	Career & College Readiness Seminar	0.25	
						8934	SAT/PSAT Prep	0.5	
						8935	SkillsUSA Prep	0.5	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	9999	Academic Tutorial 10	1	
						7710	Anatomy & Physiology	0.5	
						7760	Medical Terminology	0.5	
						1642	Nursing Technology 1	—	
Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education	0.5	
3700	Statistics	1	2235	Honors ELA 3*	1	2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
3980	Calculus	1				8920	SAT Prep ELA	0.5	
						8921	SAT Prep Math	0.5	
						99991	Academic Tutorial 11	1	
						1643	Nursing Technology 2	—	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							
Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2310	Spanish 1	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2320	Spanish 2	1	
3980	Calculus	1		Western European		2330	Spanish 3	1	
3880	Senior Math	1		Literature*		6740	Emp. Seminar/Bus. Ownership	1	
			2619	Co-op ELA 4	1	7411	Technical Applications	1	
			2640	ELA 4: Contemp.	1	9803	Jobs for Delaware Graduates 3	0.25	
				Ethics		99992	Academic Tutorial 12	1	
						1644	Nursing Technology 3	—	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	—				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## Surgical Technology

Location: Delcastle

### Program Description

**Surgical Technology** is a two-year program students will start in their junior year, after satisfactorily completing their core studies in Medical Technology and Anatomy & Physiology in their sophomore year

**Introduction to Surgical Technology** introduces the student to the broad field of healthcare, with a specific focus on surgical technology as a profession within the perioperative environment.

**Principles and Practice of Surgical Technology** explores in greater detail the aspects of the surgical technology profession, and provides rationale behind the hands-on application students will engage in. Course topics include:

- history of surgical technology and the founders of asepsis
- various surgical technical employment opportunities and career development
- teamwork and communication in the operative environment
- biopsychosocial needs of the surgical patient
- ethical and legal matters in the perioperative setting
- patient and workplace safety
- roles and responsibilities of surgical team members
- infection prevention and aseptic technique
- principles of sterile technique in the operating room
- surgical instrumentation, supplies and equipment and their uses
- surgical case management
- methods of decontamination, disinfection, and sterilization of surgical instrumentation

**Surgical Tech Laboratory** is the place of study for the basic skills needed to function as an entry-level surgical technologist. Emphasis is placed on practical application of concepts identified in the theory section of the program. After viewing a demonstration of a skill, and understanding the rationale behind it, the student will practice the skill until he/she reaches the level of proficiency. Using a Skill Assessment Tracking Sheet, students shall receive consistent feedback from the instructor, and informed of areas that may need improvement. All skills taught in the lab are based on evidence-based practice {EBP}.

**Medical-Surgical Terminology** is intended to build on the foundational base learned in sophomore year. The student will learn prefixes, suffixes, root words, and abbreviations of surgical terminology as they relate to operative procedures.

**Surgical Anatomy and Physiology** also intended to build upon sophomore-year A&P, reviews basic concepts and applies them to practical surgery. Surgical A&P illustrates to the student how the anatomy and physiology of a specific body structure relates to a specific surgical procedure.

Topics include:

- Organization of the human body
- Specific organ systems
- Pathophysiology requiring surgical interventions



*Surgical Technology Certification – Technician in Surgery, Certified {TS-C} – is distributed through the National Center of Competency Testing.*

# SURGICAL TECH

Delcastle Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8210	Physical Education	0.5	
3700	Statistics	1				7710	Anatomy & Physiology	0.5	
3950	Pre-Calculus*	1				7760	Medical Terminology	0.5	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	8210	Physical Education/Health	0.5	
3700	Statistics	1	2235	Honors ELA 3*	1	2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
3980	Calculus	1							
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	1692	Surgical Tech 2	4	
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors Western European Literature*	1	2330	Spanish 3	1	
3980	Calculus	1				7411	Technical Applications	1	
3880	Senior Math	1	2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp. Ethics	1	1693	Surgical Tech 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro to Sociology	-				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**      ELA = 4 credits, to include ELA 2      SS = 3 credits, to include U.S. History      Health = 0.5 credits  
 Vocational = 10 credits      M = 4 credits, to include IM 3      S = 3 credits, to include Biology      Phys. Ed. = 1.0 credits  
 World Language = 2 credits

## ACADEMY OF FINANCE & BUSINESS

Location: Howard

### Program Description

Howard's **Academy of Finance and Business** offers a three-year program of study for approximately 75 high school students interested in pursuing careers and post-secondary education in the financial services field. The specialized curriculum, developed with industry professionals, is taught in the classroom and practiced in the workplace. Beginning in the 10th grade, Academy students spend half of each school day taking a full range of academic courses, learning economic and business principles as well as practical skills for the workplace such as human relations, business communications, and job readiness. Howard's Academy is affiliated with the National Academy Foundation (NAF), a non-profit organization that sustains a national network of career academies to prepare youth for personal and professional success. Students may earn college credit through Tech Prep Agreements and dual enrollment. Employment opportunities following high school graduation: bookkeepers, customer service representatives, payroll clerks, bank tellers, account clerks, credit analysts, financial product representatives, and insurance.

### Employment opportunities available after high school graduation or with a 2-year degree:

Accountant, Telecommunications, Credit Analyst, Securities Professional, Financial Products Representative, Real Estate Administration, Insurance Representative, Customer Service Representative



# ACADEMY OF FINANCE & BUSINESS

Howard High School of Technology

GRADE 9									
Math (M)				English (ELA)			VOCATIONAL/OTHER COURSES		
3250	IM1 (FY)	1	2210	ELA 1	1	1911	Career Exploration	1	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	2310	Spanish 1	1	
3400	Integrated Math 2	1				2320	Spanish 2	1	
3500	Integrated Math 3	1							
Science (S)				Social Studies (SS)					
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8310	Health	0.5	
3700	Statistics	1				8934	SAT/PSAT Prep	0.5	
3950	Pre-Calculus*	1				8935	SkillsUSA Prep	0.5	
						9999	Academic Tutorial 10	1	
						1812	Academy of Finance and Business 1	3	
Science (S)				Social Studies (SS)					
4300	Biology	1	5300	Economics	1				

Grade 11									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3500	Integrated Math 3	1	2230	ELA 3	1	8222	Physical Education	1	
3700	Statistics	1	2235	Honors ELA 3*	1	8920	SAT Prep ELA	0.5	
3950	Pre-Calculus*	1				8921	SAT Prep Math	0.5	
3980	Calculus	1				99991	Academic Tutorial 11	1	
						1813	Academy of Finance and Business 2	1.5	
						1815	DTCC Financial Literacy Series**	1.5	
Science (S)				Social Studies (SS)			** Dual Enrollment		
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)				English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES		
3700	Statistics	1	2610	ELA 4: Short Story	1	6740	Emp. Seminar/Bus. Ownership	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3	0.25	
3980	Calculus	1		Western European Literature*		99992	Academic Tutorial 12	1	
3880	Senior Math	1							
			2619	Co-op ELA 4	1				
			2640	ELA 4: Contemp. Ethics	1	1814	Academy of Finance and Business 3	4	
						1000	Cooperative Education	1	
Science (S)				Social Studies (SS)					
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## BUSINESS TECHNOLOGY

**Locations:** Delcastle

Students in the **Business Technology** programs are expected to demonstrate effective communication skills, customer relations expertise, and concepts vital to the development of a business career. This curriculum includes instruction and practical application in business management, business communication, business law, economics, financial analysis, information technology, and entrepreneurship. Additionally, students are expected to learn and understand organizational concepts involving human resource and strategic management in the world of business, as well as, systems used to monitor and control day-to-day operations. Moreover, students have the opportunity to attain Microsoft Office Specialist Certification, a credential that validates skills in the Microsoft Office systems (Word, Excel, PowerPoint, Access and Outlook). Successful completion of all five expert level exams awards student a Master Microsoft Office Specialist certification, which is nationally recognized as a college credit. Students are also offered the opportunity to complete college courses via dual enrollment classes offered by Wilmington University. Current courses offered are Computer Applications and Principles of Management, both taken their junior year.

### **Employment opportunities available after high school graduation:**

Administrative/Legal Assistant, Receptionist, Word Processor, Financial Services Clerk, Accounting Clerk, Bank Teller, Customer Services, Purchasing Agent/Buyer, Entrepreneur

### **Employment opportunities requiring 2-years of specialized training after high school:**

Computer Programmer

### **Employment opportunities requiring 4-years of specialized training after high school.**

Accountant/Auditor, Retail Manager, Human Resource Manager, Acquisition and Contract Manager, Sports & Entertainment Manager, Paralegal, Organizational Psychology, Government Relations, Financial/Budget Analyst, Loan Officer, Corporate Event Planner, Small Business Management



# BUSINESS TECHNOLOGY

Delcastle Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				2310	Spanish 1	1	
3950	Pre-Calculus*	1				2320	Spanish 2	1	
						1712	Business Technology 1	1.5	
						1716	WU CTA206 Cont.Tech Apps	1.5	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				2330	Spanish 3	1	
3980	Calculus	1							
						1713	Business Technology 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European Literature*		2330	Spanish 3	1	
3880	Senior Math	1		Co-op ELA 4	1	7411	Technical Applications	1	
			2619	ELA 4: Contemp. Ethics	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640			1714	Business Technology 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro to Sociology	-				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			



## COMPUTER NETWORK ADMINISTRATION/DESKTOP & WEB TECHNOLOGIES SUPPORT

Location: Howard, Hodgson

### Program Description

The **Computer Network Administration** career area will provide students with the knowledge and training to prepare them for entry-level employment opportunities in the Information Technology (IT) industry. Students in this program will gain hands-on experience in the realm of computer hardware and operating systems, networking, software applications, and an introduction to web and video game design technologies. This career area prepares the students with the foundation to obtain various IT certifications through vendors such as, Cisco and Computer Technology Industry Association (CompTIA).

Specific certifications that students will be preparing for include:

- ┌ CompTIA A+ (Cisco IT Essentials)
- ┌ Cisco Certified Entry Network Technician (CCENT)



# COMPUTER NETWORK ADMINISTRATION

## DESKTOP & WEB TECHNOLOGIES SUPPORT

Howard High School of Technology

Hodgson Vocational Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	1911	Career Exploration (HHST)	1	
3400	Integrated Math 2	1				2310	Spanish 1	1	
3500	Integrated Math 3	1				2320	Spanish 2	1	
						8210	Physical Education	0.5	
						8310	Health	0.5	
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				
Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.5	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				8222	Physical Education	1	
3950	Pre-Calculus*	1				2310	Spanish 1	1	
						2320	Spanish 2	1	
						8934	SAT/PSAT Prep	0.5	
						8935	SkillsUSA Prep	0.5	
						9999	Academic Tutorial 10	1	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1	1732	CNAP 1		
Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				8222	Physical Education	1	
3980	Calculus	1				8920	SAT Prep ELA	0.5	
						8921	SAT Prep Math	0.5	
						99991	Academic Tutorial 11	1	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1	1733	CNAP 2		
4500	Chemistry*	1				-			
4600	Physics*	1							
Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	6740	Emp. Seminar/Bus. Ownership	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	9803	Jobs for Delaware Graduates 3	0.25	
3980	Calculus	1		Western European		99992	Academic Tutorial 12	1	
3880	Senior Math	1		Literature*		7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp. Ethics	1	2320	Spanish 2	1	
						1734	CNAP 3		
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	-				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## DIGITAL MEDIA

Location: Delcastle

### Program Description

**Digital Media** prepares students to apply their knowledge and skills by communicating information through the creation and production of videos. This gives them the skills to work within the many areas of the communications field. These production areas include corporate video, television, film, design and audio. They will plan, prepare, and produce a variety of projects for real clients. Students will learn the theoretical and practical applications of lighting, audio, control room operations, TV studio operation, on-location video production, graphic creation and animation, directing, scriptwriting, and non-linear video editing. Students will also learn media podcasting, basic digital music composition, and creative typography. Students will use the latest computer software including: Adobe's Creative Suite (After Effects, Photoshop, Illustrator) and Apple's Final Cut Pro X, Motion 5, and Logic Pro X. Client projects can be outputted to websites, DVD, televisions or social media sites such as Facebook, Twitter, and YouTube. Emphasis will be placed on problem-solving and creative contributions as a team member to bring an employers' or clients' vision to fruition.



# DIGITAL MEDIA

Delcastle Technical High School

Math (M)				English (ELA)		VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)				Social Studies (SS)					
4200	Physical Science	1	5200	Global Studies	1				

Math (M)				English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1							
3950	Pre-calculus*	1							
						1782	Digital Media 1	3	
Science (S)				Social Studies (SS)					
4300	Biology	1	5350	Economics	1				

Math (M)				English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1783	Digital Media 2	3	
Science (S)				Social Studies (SS)					
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Math (M)				English (ELA)		VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*		7411	Technical Applications	1	
3880	Senior Math	1		Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2619	ELA 4: Contemp. Ethics	1	1784	Digital Media 3	3	
			2640			1000	Cooperative Education	1	
Science (S)				Social Studies (SS)					
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro to Sociology	-				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5  
 Vocational = 10 credits  
 World Language = 2 credits  
 ELA = 4 credits, to include ELA 2  
 M = 4 credits, to include IM 3  
 SS = 3 credits, to include U.S. History  
 S = 3 credits, to include Biology  
 Health = 0.5 credits  
 Phys. Ed. = 1.0 credits

## GRAPHIC ARTS

Location: Delcastle

### Program Description

The Graphic Arts program of study will prepare students with the technical skills and practical experience to design, prepare and produce printed communications using digital, offset, screen, and wide format technologies. Students learn graphic design techniques and use software applications including Adobe Illustrator, Photoshop, and InDesign, to produce graphics for mass communication. First year studies include introduction to Adobe Creative Suite and Illustration. Students have hands-on experience with design principles, color theory, typography, illustration, page layout, digital file output. Student will produce single and multiple color screen-printing products. Juniors have opportunity to work with “real” clients on “real” projects for the school district and the non-profit community, under the supervision of their instructor. Students develop a dynamic portfolio of digital and print projects. Eligible seniors are in demand for paid employment with local co-op employers, and through work experience, develop contacts and skills that lead to continued full-time employment or further training in the Graphic Communications field.

*Students may earn the following certification: GAERFPrintED Accreditation for Intro to Graphic Arts and Graphic Design.*

### Employment opportunities following high school graduation:

Print shops, specialty-printing centers



# GRAPHIC ARTS

Delcastle Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1							
3950	Pre-Calculus*	1							
						1792	Graphic Arts 1	3	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1793	Graphic Arts 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2		
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European Literature*				1	
3880	Senior Math	1				7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp. Ethics	1	1794	Graphic Arts 3	3	
						1000	Cooperative Education	1	
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5820	Intro to Sociology	-				
4700	Environmental Sc.	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

Total = 27.5  
 Vocational = 10 credits  
 World Language = 2 credits  
 ELA = 4 credits, to include ELA 2  
 M = 4 credits, to include IM 3  
 SS = 3 credits, to include U.S. History  
 S = 3 credits, to include Biology  
 Health = 0.5 credits  
 Phys. Ed. = 1.0 credits

## IT Academy

Location: Delcastle, St. Georges

### Program Description

The **Information Technology Academy** is a course of study for future programmers and computer scientists. Students will learn the fundamentals of number systems computational logic, coding, and programming languages, such as Python, Java, HTML, CSS, JavaScript, and SQL. In this program, students are asked to use computational practices, such as data structure design, algorithm development, data analysis, web design, networking design, and problem solving, within the context of real-world problems. They are introduced to current topics, such as computing systems, logic, and database fundamentals, as well as societal and ethical issues. Students explore a range of careers in information technology and computer science as they learn to connect their informal knowledge, technology skills, and beliefs about computing, programming, and software development to the theoretical and foundational tents of computer science and information systems. Students apply math and science to hands-on projects and explore the roles of computer scientists and programmers as they study the technical skill set, educational pathways, and ongoing training required for computing and software development careers. Students examine computing problems that are culturally relevant and address social and ethical issues while engaging in several in-depth projects to demonstrate the real-world of computing.

Students earn dual-enrollment credits through Wilmington University.



# IT Academy

Delcastle, St. Georges

GRADE 9									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL/OTHER COURSES</b>			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career Exploration	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.5	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education	0.5	
3700	Statistics	1				8710	Career & College Readiness Seminar	0.25	
3950	Pre-Calculus*	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4300	Biology	1	5350	Economics	1	1745	WU SDD100 Basic Web Design**	1.5	
						1746	WU SDD325 Java Programming 1**	1.5	
** Dual Enrollment									

Grade 11									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1				2330	Spanish 3	1	
3980	Calculus	1							
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4400	Integrated Science	1	5400	US History	1	1747	WU CSC345 Database Foundations	1.5	
4500	Chemistry*	1				1748	WU CSC335 Java Programming II	1.5	
4600	Physics*	1							

Grade 12									
<b>Math (M)</b>			<b>English (ELA)</b>			<b>VOCATIONAL (3 credits required)/OTHER COURSES</b>			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1	2330	Spanish 3	1	
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		7411	Technical Applications	1	
			2619	Co-op ELA 4	1	6740	Emp. Seminar/Bus. Ownership	1	
			2640	ELA 4: Contemp.	1				
				Ethics		1744	IT Academy 3	3	
						1000	Cooperative Education	1	
<b>Science (S)</b>			<b>Social Studies (SS)</b>						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro. to Sociology	-				
4350	Advanced Biology*	1							

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

**Total = 27.5**  
 Vocational = 10 credits    ELA = 4 credits, to include ELA 2    SS = 3 credits, to include U.S. History    Health = 0.5 credits  
 World Language = 2 credits    M = 4 credits, to include IM 3    S = 3 credits, to include Biology    Phys. Ed. = 1.0 credits



## WEB AND PRINT TECHNOLOGY

Location: St. Georges

### Program Description

**Web & Print Technology** prepares students to apply design principles, color theory, with the use of Adobe CC software (Adobe Animate, Photoshop, Illustrator, InDesign and Dreamweaver) to produce effective marketing materials and websites. With the Design to Code process using Dreamweaver (HTML editors), WordPress (CMC users), students will create outstanding digital portfolios to help assist in searching for a co-op job. Students also learn animation, basic HTML and JavaScript, graphics applications and other authoring tools to the design, editing, and publishing (launching) of documents, images, graphics, gif animations on the World Wide Web and much more.

In addition to becoming skillful in the use and application of Web and Print Design systems, students will also possess a foundation of knowledge that may transfer to other career pathways working in the information technology field and business field. During the initial year of instruction, students will be able to develop foundation skills that are important for success. Over a three-year period, the course will provide students with a thorough opportunity to develop specialized career skills that will be based in the design and development of laboratory based projects on a continual basis.

### Employment opportunities available with college degree:

Art Director, Computer Publishing, Creative Director, Digital Imaging, Freelance Web / Graphic Designer, Graphic Designer, Illustrator, Marketing Director, Media Specialist, Multi-Media Design, Photographer, Production Artist, Studio Technician, Visual Communication Assistant, Web Designer, Web Developer



# WEB AND PRINT TECHNOLOGY

St. Georges Technical High School

GRADE 9									
Math (M)			English (ELA)			VOCATIONAL/OTHER COURSES			
3250	IM1 (FY)	1	2210	ELA 1	1	1910	Career and Transition	2	
3300	Integrated Math 1	1	2215	Honors ELA 1*	1	8210	Physical Education	0.5	
3400	Integrated Math 2	1				8310	Health	0.5	
3500	Integrated Math 3	1							
Science (S)			Social Studies (SS)						
4200	Physical Science	1	5200	Global Studies	1				

Grade 10									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3400	Integrated Math 2	1	2220	ELA 2	1	8400	Driver Education	0.25	
3500	Integrated Math 3	1	2225	Honors ELA 2*	1	8220	Physical Education 2	0.5	
3700	Statistics	1				8710	Career & College Readiness Seminar	0.25	
3950	Pre-Calculus*	1							
						1752	Web & Print 1	3	
Science (S)			Social Studies (SS)						
4300	Biology	1	5350	Economics	1				

Grade 11									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3500	Integrated Math 3	1	2230	ELA 3	1	2310	Spanish 1	1	
3700	Statistics	1	2235	Honors ELA 3*	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1							
3980	Calculus	1				1753	Web & Print 2	3	
Science (S)			Social Studies (SS)						
4400	Integrated Science	1	5400	US History	1				
4500	Chemistry*	1							
4600	Physics*	1							

Grade 12									
Math (M)			English (ELA)			VOCATIONAL (3 credits required)/OTHER COURSES			
3700	Statistics	1	2610	ELA 4: Short Story	1	2320	Spanish 2	1	
3950	Pre-Calculus*	1	2635	ELA 4: Honors	1				
3980	Calculus	1		Western European					
3880	Senior Math	1		Literature*		1754	Web & Print 3	3	
			2619	Co-op ELA 4	1	1000	Cooperative Education	1	
			2640	ELA 4: Contemp. Ethics	1				
Science (S)			Social Studies (SS)						
4500	Chemistry*	1	5500	World History*	1				
4600	Physics*	1	5600	Contemp. Cit.	1				
4700	Environmental Sc.	1	5820	Intro to Sociology	-				

\* Denotes prerequisites must be met in order to enroll.

**Graduation Requirements:**

<b>Total = 27.5</b>	ELA = 4 credits, to include ELA 2	SS = 3 credits, to include U.S. History	Health = 0.5 credits
Vocational = 10 credits	M = 4 credits, to include IM 3	S = 3 credits, to include Biology	Phys. Ed. = 1.0 credits
World Language = 2 credits			

## Courses – Academic

### ENGLISH COURSE DESCRIPTIONS

Course selection is based on the career program of study chosen by the student that meets the high school graduation requirements as well as the certificate of competency requirements for that career program. Students, their parents, counselors, and teachers should all be involved in the course selection process, making choices that best suit the individual student's needs and interests.

Choices are based on knowledge of requirements for entrance into various occupations, colleges, or technical schools that will lead toward an occupational or educational goal. The student's schedule will include all required courses in the selected career program of study as well as all required academic courses in English, mathematics, science, social studies, physical education, safety/health, and world languages.

### HONORS ELIGIBILITY FOR ENGLISH LANGUAGE ARTS 1-4

Students are expected to meet the requirements listed for their grade level in order to be deemed eligible. Students who are currently enrolled in an NCCVT ELA Honors course and have earned an A or a B will be deemed eligible for enrollment in the subsequent ELA Honors course and will NOT need to meet the requirements listed below. However, if a student becomes ineligible and wants to be reconsidered for ELA Honors, he/she will need to meet the eligibility guidelines below.

***Due to the Covid-19 Pandemic and the remote and hybrid learning schedules, standardized tests may be considered but NOT a contributing factor for students not being placed in an honors level ELA course for the 2021-2022 school year.***

#### **Honors ELA 1 Eligibility**

- Student must have earned an A as a final grade in his/her 8<sup>th</sup> grade ELA course and...
- Student must have earned a 4 on the 8<sup>th</sup> grade Smarter Assessment

#### **Honors ELA 2 Eligibility**

- Student must have an A as a final grade for ELA 1 and...
- Student must have a Lexile of 1080 or above per the SRI test and/or...
- Student earns a 23 or higher on reading or writing on the PSAT 8/9 and...
- Student must successfully complete and submit the Honors eligibility written response by the specified due date and...
- Receive a positive recommendation from ELA 1 teacher (See below for information)

#### **Honors ELA 3 Eligibility**

- Student must have an A as a final grade for ELA 2 and...
- Student must have a Lexile of 1215 or above per the SRI test and/or...
- Student earns a 23 or higher on PSAT in reading and/or writing and...
- Student must successfully complete and submit the Honors eligibility written response by the specified due date and...
- Receive a positive recommendation from ELA 2 teacher (See below for more information).

**Honors ELA 4 Eligibility**

- Student must have an A as a final grade for ELA 3 and...
- Student must have a Lexile of 1215 or above per the SRI test and/or...
- Student must earn a 480 or higher on SAT verbal (both reading & writing) **OR** Accuplacer score of 78 reading or 84 writing
- Student must successfully complete and submit the Honors eligibility written response by the specified due date and...
- Receive a positive recommendation from ELA 3 teacher (See below for more information)

**Other Items**

- Students entering 9<sup>th</sup> who are eligible for honors will be scheduled directly into the course. Students and parents will receive written notification of the placement prior to the start of the school year. Students may “opt out” of the course if there is a strong desire to do so by both the student and parent/guardian prior to the start of the course or within the first two full weeks of the course.
- Students who have successfully completed an ELA honors course with a B or better will automatically be scheduled into the next ELA honors course.
- Students may not transfer from an honors course to a regular course after the first two full weeks of the course.
- Students and parents/guardians will sign an “expectation” contract agreeing to commit to the program during the first week of school; the signatures will indicate that students understand the course expectations as well as their responsibilities and the time commitment necessary to be successful in an honors course.
- Schools will make the SRI test available to current students who want to be considered for Honors as long as all the other eligibility requirements are met first (ELA Honors 2-4). Schools will determine the schedule and administer the test.
- Teacher recommendation forms (only for eligibility into ELA Honors 2-4): A request form for the recommendation must be picked up by the student and given to the most recent ELA teacher. The teacher will receive the request and then fill out the Google form that will be posted on the district ELA Schoology site and/or school’s website. Schools will have the discretion to make decisions based on teacher feedback.
- Schools will have discretion to override placement depending on individual circumstances and course availability.

**ELA 1:** is a skills-based course designed to aid students to develop, improve, and refine their reading, writing, listening, speaking, and information-gathering skills. Reading skills will include summarizing, paraphrasing, and making inferences/drawing conclusions. Students will read and respond to a multicultural sampling of literature, including short stories, novels, poetry, plays, essays, and biographies that focus on the concept of coming of age. Students will write narrative, informative, and argumentative essays with instruction addressing topic development, organization, sentence structure, word choice, and mechanics. Research skills include integrating information from three to four sources, locating information, evaluating information for its relevancy, and documenting according to APA standards. In addition to required essays, students will take four reading assessments and complete two performance tasks during the course. Aligned to the SAT, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 2:** focuses on developing analytic skills for reading, writing, speaking, viewing, and listening. Students will write informative, narrative, and argumentative essays. Students will develop analytic skills by reading and responding to a variety of literary and informational texts that allow the student to explore different cultural perspectives. Research skills include integrating information from four to five sources and becoming more adept at documenting according to APA standards. In addition to required essays, students will take four reading assessments and complete two performance tasks during the course. Aligned to the SAT, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 3:** focuses on American literature from a thematic perspective. Students will read a wide sampling of literary selections in order to understand the varied interrelationships of literature, society, and the individual. Writing instruction will focus on increasing proficiency in literary analysis, argument, and using narrative to support one's ideas. Students will continue to develop and refine skills in sentence structure, research, reading, listening, and speaking. Students will synthesize five to seven sources. In addition to required essays, students will take four reading assessments and complete two performance tasks during the course. Aligned to the SAT, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 4: Contemporary Ethics** is an option for fourth year English that provides students with the skills needed for both the workplace and college. During the course, students read a variety of literature and non-fiction through units focused on contemporary issues such as modern identity, the environment, technology, and health sciences. In addition to reading a variety of grade-level texts, students refine their skills in writing narrative, informative, and argumentative texts. Research skills are incorporated in each unit, culminating in students conducting and presenting research on a topic of their own choosing. In addition to required essays, students will take two reading assessments and complete two performance tasks during the course. Aligned to the Common Core State Standards, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 4: Short Story** is an option for fourth-year English that provides students with skills needed for both the workplace and college. During the course, students explore a variety of short stories, informational texts, plays, and novels. Students also refine their skills in writing argument, narrative, and informative texts. Research skills are further developed as students synthesize information from six to seven sources. In addition to the required essays, students will take four district-mandated assessments and complete two performance tasks during the course. Aligned to the Common Core State Standards, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 4: Technical and Professional Communications\*** is an option for fourth-year English that will prepare students for professional and collegiate engagements. Students will practice the standards of professional written English, use modern informative texts from diverse perspectives to advance their reading and analysis skills, and write in a variety of modes dependent on audience and purpose through a feedback-driven writing process. The course will include four summative reading assessments, three substantial writing tasks, a research project, and opportunities for students to practice speaking in a professional setting and formalize their professional resume. In completing uniform writing tasks, students will be given the flexibility to customize their approach to make their work applicable to their plans after graduation.

*\*This course is designated as a pilot and may or may not be offered in 2020-2021 school year. The determination will be made after the publication of this document in spring 2020.*

## ENGLISH HONORS COURSES

**ELA 1 Honors:** ELA 1 Honors is a rigorous course that is intended for students who are ready for a challenging English curriculum. Students improve their reading, writing, listening, speaking, and information-gathering skills while reading a wide variety of classic, multicultural literature. Socratic seminar and debate are an integral part of the class. Students will write narrative, argumentative, and informative essays with instruction that addresses going beyond the typical five-paragraph essay. Research skills include integrating information from four sources, locating information, evaluating information for its relevancy, and documenting according to APA standards. In addition to required essays, students will take four reading assessments and complete two performance tasks during the course. Aligned to the SAT, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 2 Honors:** ELA 2 Honors is a rigorous world literature course that includes classic literature and informational texts from Latin America, Africa, the Middle East, and Asia. Students write informational, argumentative, and narrative essays that strengthen their analytic skills and ability to synthesize information. Socratic seminar and debate are an integral part of the class. Research skills include integrating information from five sources and becoming more adept at documenting according to APA standards. In addition to required essays, students will take four reading assessments and complete two performance tasks during the course. Aligned to the SAT, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 3 Honors:** ELA 3 Honors is a rigorous course that focuses on American literature from a chronological approach. Students will read a wide variety of literary and informational texts from classic American literature in order to trace the development of American literature over time. Writing instruction will focus on increasing proficiency in evaluation, literary analysis, argument, and using narrative to support one's ideas. Students will continue to develop and refine skills in sentence structure, research, reading, listening, and speaking. Students will synthesize seven sources. In addition to required essays, students will take four reading assessments and complete two performance tasks during the course. Aligned to the SAT, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

**ELA 4: Western European Literature** is a fourth year English option for those students ready to take on the challenge of honors level curriculum. During the course, students explore diverse selections of texts from Western Europe spanning the Middle Ages to the twentieth century. In addition to reading classic literature and informational texts, students also develop college ready skills in argument, exposition, narration, and evaluation. College-level research skills are honed with students effectively synthesizing at least eight sources. In addition to required essays, students will take two reading assessments and complete two performance tasks during the course. Aligned to the Common Core State Standards, these assessments are used to monitor and measure student growth in reading, writing, and synthesizing sources.

## WORLD LANGUAGE COURSE DESCRIPTIONS

Starting with the Class of 2015, students will be required to take and pass two years of the same world language in order to be eligible for graduation. Students who are heritage learners (native speakers) or who have extensive experience in reading, writing, and speaking in Spanish may consider the option of 'testing out' of one or both levels of Spanish by taking the Assessment of Performance toward Proficiency in Language (AAPPL). This test is offered online through the guidance office and provides realistic role-play scenarios using high-quality audio and video that create real-world tasks. Students interested in pursuing this option should contact their guidance counselor.

The assessment and accompanying credit is compliant to Delaware's world language requirements for graduation (Title 14, regulation 505, 3.2.1.2). If a student performs at an N3 or I (novice mid or Intermediate) level on the test in 3 /4 or 4 /4 in the tested skill areas (reading, writing, speaking & listening), the student will earn one high school credit in Spanish. Students may earn two high school credits if they perform at the N4 or I (novice high or Intermediate) level in 3/4 or 4 / 4 in the tested skill areas (reading, writing, speaking & listening) on the AAPPL test.

**Spanish 1 (2310)** is an introductory course designed to develop communication skills for a global society. Speaking, listening, reading, and writing skills are emphasized. In addition to building proficiency skills, students also develop an appreciation of the customs and culture of Spanish-speaking nations. (1 credit)

**Spanish 2 (2320; Co-op 2329)** is designed to increase language proficiency and vocabulary. An emphasis is placed on the use of the language in everyday situations. Recommended: Successful completion of Spanish 1. (1 credit)

## MATHEMATICS COURSE DESCRIPTIONS

**Integrated Math I:** is year one of an integrated, standards-based program that includes units on the following concepts: linear functions, exponential functions, and an introduction to quadratic functions.

The curriculum builds on the theme of mathematics as sense making. Through investigations of real-life contexts, students will develop a rich understanding of important mathematics which makes sense to them and which, in turn enables them to make sense out of new situations and problems.

Instruction and assessment practices are designed to promote mathematical thinking, using engaging problem situations. Both collaborative group and individual work are used as students explore, conjecture, verify, apply, evaluate, and communicate mathematical ideas. Technology plays an integral role throughout the curriculum. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits in Mathematics.

**Integrated Math II:** is year two of an integrated, standards-based program that includes units on the following concepts: data analysis, geometric reasoning, congruency, similarity, right triangle trigonometry, and coordinate geometry.

The curriculum builds on the theme of mathematics as sense making. Through investigations of real-life contexts, students will develop a rich understanding of important mathematics which makes sense to them and which, in turn enables them to make sense out of new situations and problems.

Instruction and assessment practices are designed to promote mathematical thinking through the use of engaging problem situations. Both collaborative group and individual work are used as students explore, conjecture, verify, apply, evaluate, and communicate mathematical ideas. Technology plays an integral role throughout the curriculum. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits in Mathematics.

**Integrated Math III:** is year three of an integrated, standards-based program that includes units on the following concepts: Inequalities and Linear Programming, Statistics and Surveys, and Polynomial and Rational Functions.

The curriculum builds on the theme of mathematics as sense making. Through investigations of real-life contexts, students will develop a rich understanding of important mathematics which makes sense to them and which, in turn enables them to make sense out of new situations and problems.

Instruction and assessment practices are designed to promote mathematical thinking, using engaging problem situations. Both collaborative group and individual work are used as students explore, conjecture, verify, apply, evaluate, and communicate mathematical ideas. Technology plays an integral role throughout the curriculum. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits of Mathematics.

**Statistics:** Statistics is a fourth level course that includes units on the following topics: Probability models, interpreting categorical data, set theory, counting method, binomial distributions and statistical inferences, and functions modeling change.

This curriculum is designed to dig deep into statistical analysis and uses real world applications to demonstrate the power of statistics in many fields. The students are encouraged to communicate and justify their thinking based on statistical analysis of data.

Instruction and assessments are designed around the rigor and expectations of a college level math course and are aligned with the Common Core State Standards. Technology plays an integral role throughout the curriculum. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits in Mathematics.

**Pre-Calculus:** Pre-Calculus is a college intended course that includes the following: circles and circular functions, inverse functions, families of functions, and polynomial functions.

The curriculum is designed to further develop the study of elementary functions needed for college mathematics as well as explore more complex mathematical ideas in preparation for college mathematics. The course uses real world applications to encourage students to communicate and justify their algebraic thinking both graphically and symbolically.

Instruction and assessments are designed around the rigor and expectations of a college level math course and are aligned with the Common Core State Standards. Technology plays an integral role throughout the



curriculum. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits in Mathematics.

### **Guidelines for Pre-Calculus placement**

#### Grade 10 - 11 Student Criteria

- PSAT score of 450 **or** higher in mathematics.
- Student must have an A or a B as a final grade for the previous math course.

#### Grade 12 Student Criteria

- PSAT 11 score of 480 **or** SAT score of 480 **or** higher in mathematics **or** an Accuplacer score of 63 or higher.
- Student must have an A or B as a final grade for the previous math course.

*Indicators of readiness from the College Board, Delaware Technical Community College and historical district results on PSAT and SAT were considered in determining the guidelines above.*

**Calculus:** Calculus is designed to be taken after the successful completion of pre-calculus and will include units of study on the following topics: Limits, Derivatives and Integrals.

The curriculum is designed to further develop complex mathematical ideas in preparation for college mathematics. The course uses real world applications to encourage students to communicate and justify their algebraic thinking both graphically and symbolically.

Instruction and assessments are designed around the rigor and expectations of a college level math course and are aligned with the Common Core State Standards and the Standards of Mathematical Practices. Technology plays an integral role throughout the curriculum. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits in Mathematics.

**Senior Math:** is a self-paced hybrid course that has both online and face-to-face components. In this course, students will build on their previous understanding of statistics and learn about the mathematics involved in personal finance.

As a hybrid course, using the Apex Learning website, students will work through online lessons of real-life contexts with practice and quizzes to assess their learning along the way. Students can work at their own pace and will have a teacher available to provide help and support. Students can work on the lessons and quizzes in class or on their own. All unit tests will be taken in the class with the teacher.

The curriculum for this course builds upon previous studies of making sense of data and understanding statistics in the real world. Students will also be connecting previous learning of functions and equations while learning about personal finance such as wages, compensations, interest, credit cards, debt, income and profit. Students will earn 1 credit for successfully completing this course that can be used toward meeting the graduation requirement of 4 credits in Mathematics.

## SCIENCE COURSE DESCRIPTIONS

**Physical Science** is an investigative science aligned to the *Next Generation Science Standards* and is the entry course in the NCCVT science sequence for all freshmen. Throughout the course, students will investigate phenomena related to the interactions of matter and flow of energy in physical and chemical systems in order to understand how and why matter interacts in real-life situations. Successful completion of Physical Science satisfies one (1) of three (3) state-required investigative science graduation credit requirements.

**Biology** is an investigative science aligned to the *Next Generation Science Standards* and is the second course for the NCCVT science sequence for all sophomores. Biology is designed to follow the successful completion of physical science. Throughout the course, students will investigate phenomena regarding the movement of matter and flow of energy in ecosystems, the impact of genetic information on the health of an organism, and the effects of evolution on structure and composition of populations over time. Students shall successfully complete biology as one (1) of three (3) state-required investigative science graduation credit requirements.

**Chemistry** is an investigative science aligned to the *Next Generation Science Standards*. It is an option for the third course for the NCCVT science sequence for juniors or seniors. In this course, students use chemistry concepts to investigate how long-term changes in climate causes environmental degradation, how scientists search for life beyond Earth, and how humans can use natural resources to meet our energy needs. Successful completion of Chemistry can be used to satisfy the third investigative science requirement for graduation. Any student interested in Chemistry may enroll. STEM-inclined students who intend to pursue post-secondary education are strongly encouraged to enroll. (*Prerequisite: Completion of Algebra 1 and Physical Science with grades of "C" or better.*)

**Integrated Science** is an investigative science aligned to the *Next Generation Science Standards*. It is an option for the third course for the NCCVT science sequence for juniors or seniors. Throughout the course, students will investigate phenomena related to earth and space science, climate change, environmental issues, utilization of natural resources and sustainability. Successful completion of Integrated Science can be used to satisfy the third investigative science requirement for graduation. Any student interested in Integrated Science may enroll. (*Prerequisite: None*)

**Physics** is an investigative science aligned to the *Next Generation Science Standards*. Successful completion of Physics can be used to complete the state graduation requirements for science. Throughout the course, students will investigate phenomena related to the mechanics of physical systems: statics, dynamics, and equilibrium. Any student interested in physics and meeting prerequisites may enroll. STEM-inclined students who intend to pursue post-secondary education are strongly encouraged to enroll. (*Prerequisite: Completion of Algebra I, Geometry, and Physical Science with grades of "C" or better.*)

### ELECTIVE COURSE

*(This course cannot be used as a substitute for the three (3) state-recommended investigative science graduation credit requirements for Science)*

**Environmental Science** is a laboratory science aligned with Delaware State Standards and requires mastery of scientific inquiry, earth science, and ecology knowledge and skills. Environmental Science is intended for **SENIORS** who have completed State graduation requirements and are interested in a fourth credit in science. This course cannot be used as a substitute for the three (3) state-required investigative science graduation credit requirements for science (*Prerequisite: Successful completion of the three (3) state-recommended investigative sciences.*)

## SOCIAL STUDIES COURSE DESCRIPTIONS

**Global Studies** is a ninth-grade course focusing on the diverse ways of life found around the world. Through the study of the pertinent issues to the world's major regions, students will recognize and evaluate the relationships between people, places, regions, and environments. Students will further explore how physical environments affect human events and build a global perspective that allows them to understand the connections between global and national issues. Students will learn to interpret geographic information, analyze demographic data, and use maps to solve problems. The major focus is the state geography standards (maps, environments, places, and regions), the state civics standard (government), and the Common Core State Standards. Related concepts found in the state economics and history standards are a supporting focus.

**Economics** is a tenth-grade course that teaches students how to make reasoned economic choices and provide ways they can effectively participate in an increasingly competitive and interdependent global economy. Students will assess the impact of market influences and governmental actions on our economy and analyze how specific economic systems impact choices and consequences for a nation's people. The major focus of the course is on the state economics standards (microeconomics, macroeconomics, economic systems, international trade), the state civics standard (politics), and the Common Core State Standards. Related concepts found in the state geography and history standards are a supporting focus.

**U. S. History** is an eleventh-grade course that focuses on the history of the United States from 1865 to the present. Students will be challenged to become historically minded, to reason, think, and perform as a historian. Students will gain insight into the nation's past by examining period accounts and first-person voices through readings, literature excerpts, political cartoons and more. Students will use varied resources to examine the links and make connections between events being studied in the textbook and events that are taking place today. The major focus is the state history standards (content, chronology, analysis, and interpretation), the state civics standards (citizenship and participation), and the Common Core State Standards. Related concepts found in the state civics, economics, and geography standards are a supporting focus.

## ELECTIVE COURSES

*(These courses cannot be used as a substitute for graduation credit requirements for Social Studies)*

**Contemporary Citizenship** is a one-credit senior elective course divided into four disciplines: political science, consumer economics, law, and social issues. In addition, students continue to develop their proficiency in the Common Core State Standards. In "Democracy in Action," students will explore their duties and responsibilities in our society, understand the application of the Bill of Rights to their everyday lives, and develop an understanding of political processes. In "Financial Literacy," students will develop an awareness of their roles as consumers and learn about the concepts of money management and credit, insurance, property ownership, consumer protection, and advertising techniques. In "Law and Order," students will learn about the three parts

of the criminal justice system: the police, the courts, and corrections. In “Social Issues,” students will explore the divisive contemporary issues facing Americans and evaluate issues that involve questions of personal rights. Students will develop analytical skills to acquire, organize, and evaluate information for purposes of clarifying these issues.

**Introduction to Sociology** is a one-credit senior elective course. The course provides the conceptual tools for analyzing and understanding social forces that shape our lives. The relationships among socialization and social groups, as well as economic, political, or religious systems are investigated. Students will utilize resources to examine the importance of sociology and make connections between the concepts studied in the text and events occurring in the world today while addressing the demands of the Common Core State Standards.

**World History Honors** is a one-credit senior course intended for the student that is planning to attend a college or university and desires exposure to college level work. To this end, the course devotes considerable time to the critical evaluation of primary and secondary sources and incorporates college centered reading, writing, and oral presentation skills as an integral part of the course. All students are required to write a college-level research paper. The course requires a substantial amount of work outside the classroom. Students will trace the development of world history by focusing on the study of global forces and large historical themes of societies in Asia, Europe, Africa, and the Americas. Studies will help students see how cultural interactions have shaped our world and how patterns in history continue to the present day. Furthermore, students should recognize that while historical events are unique, they are often driven by similar and repeated forces by people who have struggled to achieve similar goals. The major focus is the state’s history standards: content, chronology, analysis, and interpretation. Related concepts found in the state’s civics, geography, and economics standards provide a supporting focus. Students may not transfer from this course to a different social studies course after the first two full weeks of the course.

## HEALTH, PHYSICAL EDUCATION, AND DRIVER EDUCATION

**Health** is a course designed to provide education for healthful living of the individual, family, and community. Students will develop an understanding of themselves in relation to health matters in a changing society. The following are the units of study: mental health/values clarification, family life/human sexuality, alcohol/drugs/tobacco use-abuse, disease/disorders, first aid/accident prevention and safety, nutrition, consumer health, and environmental health. (.5 credits)

**Physical Education** both PE1 & PE2 offer a wide variety of physical activities with emphasis on team games and large group activities. Students will be afforded an opportunity to develop physical fitness, sport skills, playing strategy, teamwork, and cooperation with emphasis on skill development, competition and team activity. (.5 credits)

**Driver Education** is an option for all 10th grade students. Students experience formal classroom theory, simulation laboratory, and road practice. The course is guided by the driving policies established by the Motor Vehicle Division of Delaware. Before the age of eighteen, students are required to pass both the written examination and the road test to be eligible for the driver's license. (.25 credits)

*NOTE: .5 credits in Health and 1 credit in Physical Education are required for graduation.*

## RELATED COURSES

**Anatomy & Physiology** is required for students in the Health and Human Services cluster. The Anatomy/Physiology component is designed as an introduction to human anatomy and physiology as related to applications in the field of medicine. This course is intended for students in the nursing, dental assisting, medical assisting and related medical fields.

**Employment Seminar/Business Ownership** is a course that will assist students in making a smooth transition from the classroom to a satisfying job. Students will engage in activities designed to develop the necessary skills to be successful in the world of work. Students will learn about succeeding in our economic system and the issues to consider when planning a business. The course will lead students through career planning, job searching and interviewing, work ethics, leadership and group dynamics, diversity and rights in the workplace, and help students identify the challenges they will meet while working in business and industry in the future.

**Nutrition & Related Nutrition** examines the basic principles of human nutrition, emphasizing the nutrients, food sources, and their utilization in the body for growth and health throughout life. This course also assesses contemporary nutrition issues and covers food and culture, dietary guidelines, planning daily food choices, recipe skills, and mealtime customs.

**Organic Chemistry** exposes students to the basic principles of the chemistry of carbon-containing compounds. The course is a student-centered laboratory science involving problem-solving and practical applications in a manner that enhances students' knowledge of chemistry. *Prerequisite: Enrollment in Chem Lab.*

## SPECIAL EDUCATION

The NCCVT School District is committed to providing students with a documented learning disability under the Individuals with Disabilities Education Act (IDEA) an educational setting in a least restricted environment. The student's instructional and career program will be based upon an annual Individual Education Plan (IEP). The following are the types of academic and career settings that are available to students with a documented learning disability.

### **Inclusion**

Students whose IEP determines an Inclusive setting will be placed in general level classes with accommodations/modifications provided by a Learning Support Coach, special education teacher or paraprofessional. Inclusive models may appear different at each school; however, the goal at each school is the same: to provide a setting for all students to succeed in the courses with the most rigor possible. Students in Inclusive settings are responsible for all graduation requirements of the district and state.

### **STEP Program: Specialized Transition to Employment Pathway Program**

Students in **The STEP Program** are working toward a diploma of alternate achievement standards. The students in STEP are administered the DeSSA-Alt (Delaware System of Student Assessment), a statewide alternative assessment, unless otherwise determined by their IEP. The test is given in 10th and 11th grade and measures skills in the areas of Math, English, Social Studies, and Science. The district-wide program is housed at Delcastle Technical High School. The curriculum is based on the extensions of the Common Core Curriculum, that are individualized and modified to best meet the needs of the students. The STEP Program focuses on the following: (1) Providing students instruction that is aligned with the common core standards and taught at a level that matches their unique skills, abilities, and IEP goals; (2) Helping students to expand and generalize their academic knowledge across functional and vocational settings; (3) Building and developing the students' employability and vocational skills within their academic and career areas; (4) Engaging students in teacher- designed Community-Based Instruction (CBI) outings throughout the year, and (5) Placing students in volunteer or cooperative employment when opportunities arise.

**18-21 Programing**

Upon completion of the STEP Program, students may choose to continue their transition into post-secondary goals through the district's **18-21 program**. Based on his/her IEP goals, the student will choose to continue his/her education at the school or participate in a vocational training program that will provide real work experiences to prepare the student for successful employment. The program will focus on challenges that face every student entering the adult world: transportation, functional living skills, social/interpersonal skills, organizational skills, safety, and employability skills.

**IMPORTANT TERMS****Student Success Plan (SSP)**

The Delaware Department of Education has committed to secondary school reform through numerous initiatives. As part of high school redesign, Student Success Plans (SSP) have become a new graduation requirement in Delaware for all students from 8th through 12th grades. The SSP mandate includes a focus on student long-range planning for postsecondary pursuits, the identification of courses leading to those goals, and supports and other activities that will assist in high school completion and preparation for careers. Each student will meet with an advisor to develop and update his or her SSP annually.

**SRI**

Scholastic Reading Inventory (SRI) Enterprise Edition is a reading assessment program that provides immediate, actionable data on students' reading levels and growth over time. SRI helps educators differentiate instruction, make meaningful interventions, forecast growth toward grade-level state tests, and demonstrate accountability.

**Schoology**

Schoology is an online learning, classroom management, and social networking platform that improves learning through better communication, collaboration, and increased access to curriculum and supplemental content. Many teachers in NCCVTSD are utilizing the tool and incorporating the features Schoology has to offer in daily instruction. This learning management tool is not mandatory, but its use is increasing as digital devices become more accessible in the school district.

4/15/2021