

Program of Studies  
2022-2023



**WILLIAM M. DAVIES, JR.  
CAREER AND TECHNICAL  
HIGH SCHOOL**

## LETTER FROM THE DIRECTOR

Dear Davies Students,

I am pleased to present to you the Davies Program of Studies. This manual was developed through the collaborative efforts of the Davies Leadership Team and Faculty to be used as a tool to assist you in envisioning and planning out your education over your four years at Davies.

The Academic and Technical pathways in this manual are designed and aligned to support you in achieving all graduation requirements, outstanding technical preparation in your program of choice, and outstanding academic preparation to support your career goals and furthest career advancement.

Please carefully consider your course choices. Consult with your parents or guardians, your school counselor, and your teachers as you make selections. Consider the balance you need to be successful and the work habits required at each course level. Think about your post-secondary plans and goals as well.

We aim to provide you with strong support throughout the course registration process. If you have any questions, please do not hesitate to reach out to your school counselor or an administrator for assistance.

I wish you great success in the coming academic year!

Best regards,

Mary Watkins, Director

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### **Discrimination and Harassment: Nondiscrimination/Anti-harassment Policy**

*The William M. Davies, Jr. Career & Technical High School (Davies) is committed to a work environment in which all individuals are treated with respect and dignity. Each individual has the right to work in a professional atmosphere that promotes equal employment opportunities and prohibits unlawful discriminatory practices, including harassment. Therefore, Davies expects that all relationships among persons in the agency will be business-like and free of bias, prejudice and harassment.*

## **PHILOSOPHY/GOALS/LEARNING EXPECTATIONS**

### **Philosophy**

The following philosophy will support the Davies community initiative toward the development and creation of technical and academic excellence.

The underlying premise is that this mission will be accomplished with an aggressive implementation of fundamental academic and technical skills, integration of academic and technical learning, a close collaboration of family involvement, partnerships with the community at all levels, and a strong professional development program for faculty and staff.

To accomplish our mission, the following educational and organizational strategies will be implemented:

- innovative scheduling
- academic integration
- school-to-career activities
- business and industry partnerships
- infusion of technology throughout the curriculum
- support services including Guidance, ELL, Diverse Education, 504 Plans, school nurse, academic remediation, assessments, and social workers,
- safe supportive environment.

The following goals have been identified to assist the staff and administration in their journey to improve student performance and achievement.

### **Goals**

To continue to promote and enhance:

- the communication between administration, staff, students and parents,
- the development of a school-wide, integrated curricula among academic and technical areas,
- the learning opportunities within our diverse student population,
- the various instructional strategies and assessment methods enabling all students to meet the requirements of the RI Diploma System,
- the involvement of all internal and external stakeholders in the process of educating our community of learners,
- the commitment of providing professional development opportunities for all staff,
- the implementation of infusing technology into the teaching and learning practices,
- the opportunities offered through extracurricular activities that broaden both the educational and social experiences provided within the learning environment

# LEARNING EXPECTATIONS

## ACADEMIC AND TECHNICAL EXPECTATIONS

- Read, write, speak, and present effectively
- Demonstrate mathematical competency
- Demonstrate technical competency
- Use a variety of technologies and resources
- Use problem-solving skills
- Demonstrate employability skills
- Demonstrate business and entrepreneurial skills

## SOCIAL, BEHAVIORAL, AND CIVIC EXPECTATION

- Take responsibility for your own behavior
- Show respect for others, the school, and yourself
- Maintain self-control
- Resolve conflicts responsibly
- Commit to behaving in a manner that optimizes your educational experience
- Demonstrate the rights and responsibilities of a democratic society
- Make positive contributions to business and community organization

# VISION STATEMENT

That Davies is known as a premier career and technical high school in the New England region, differentiated by 1) a fully integrated academic and technical curriculum, 2) first-class facilities and equipment, 3) lasting business and industry partnerships, 4) a strong sense of student belonging, and 5) faculty and staff fully committed to student success, to family outreach, and to preparing graduates for career advancement in tomorrow's economy.

## GRADUATION AND DIPLOMA REQUIREMENTS

In accordance with the Board of Education High School Regulations, the William M. Davies, Jr. Career and Technical High School has established the following graduation requirements:

During grades 9-12, all students must accumulate sixteen and one quarter ( $16 \frac{1}{4}$ ) academic credits above and beyond technical area credits by the end of their senior year. In reference to technical area credits, successful completion of the current year's technical credits is necessary to advance to the next grade level. Shop experience is necessary for continuation at Davies. Students must pass the technical area in their senior year in order to graduate. All students are required to accumulate ten (10) technical credits in addition to the sixteen and one quarter ( $16 \frac{1}{4}$ ) academic credits. To graduate all students must acquire a total of twenty-six and one quarter ( $26 \frac{1}{4}$ ) credits to receive a high school diploma. Through the diploma system, students will demonstrate proficiency by:

- Capitalizing on the mastery of content knowledge in academic preparation and technical training;
- Integrating applied learning skills with instructional practices across content disciplines;
- Integrating academic preparation and technical training across school-wide instructional practices;
- Integrating and infusing technology instruction and practices across all disciplines;
- Fostering a level of comprehension and application of visual arts standards through technology instruction/ practices and senior project exhibition.

### Carnegie and Technical Units

All students must successfully complete twenty-six and one quarter ( $26 \frac{1}{4}$ ) units to meet core and technical area requirements.

English	4 units
Math	4 units
Science	3 units
Social Studies	3 units (1 unit must be U.S. History)
Physical and Health Education	<b><i>1 <math>\frac{3}{4}</math> units *</i></b>
Electives	$\frac{1}{2}$ units
Technical	10 units

***\*Due to extenuating circumstances requirements may be adjusted***

## **GPA Computation**

**Davies utilized a weighted GPA which is computed on the basis of:**

**A = 4**

**B = 3**

**C = 2**

**Advanced Placement (AP) courses, College level courses (Running Start, Advanced course net courses, and designated Honors courses earn credit on a weighted or five-point scale:**

**A = 5**

**B = 4**

**C = 3**

Electives are any courses that are not required in the six core areas (English, Social Studies, Math, Science, Arts, and Technology) or technical programming. Elective classes follow the same grading policy as non-elective classes and should be taken just as seriously.

Physical and Health Education courses are offered bi-weekly for Grade 12 or by semester for four years. Students are required to enroll and participate in both courses every year. Students can earn up to two (2) credits, but are required one and three-quarter ( $1\frac{3}{4}$ ) credits for graduation.

Senior students must successfully pass and complete all but one-half ( $1/2$ ) credit of their academic courses in order to be eligible for graduation regardless of already accumulated credits.



## **PROFICIENCY BASED GRADUATION REQUIREMENT (PBGR)**

The Council on Elementary and Secondary Education approved Rhode Island graduation requirements detailing that students must demonstrate proficiency through a “performance-based assessment”, such as a senior project, exhibition, or portfolio of work. Davies’ Board of Trustees developed this policy in an effort to align this requirement with Davies’ mission to prepare students to be productive participants in today’s workforce and to ensure that we are preparing students for employment in high-wage, high-demand careers.

**Work-based Learning** - A position for a student that provides the opportunity to apply and develop their academic, technical, and essential skills, shows students the relevance of their education as it connects to the real world, and prepares them for success for college and career.

### **Requirements:**

- A. Work-based learning
  - a. Students must complete a minimum of 80 hours of work-based learning.
  - b. Non-eligible students will be required to complete a rigorous alternate assignment, approved by the Supervisor of Career and Technical Education and monitored and scored by their technical instructor.
- B. Proficient Resume
  - a. Students must complete a resume and are required to update as necessary (Including new certifications; awards and recognitions and job-related information).
  - b. Students must achieve a cut-score of 90 for Proficiency with Distinction and a cut score of 80 to meet Proficiency.
- C. Mock Interview
  - a. Students completing a rigorous alternate assignment must participate in a mock interview as the final step of the performance based exit requirement for graduation.
  - b. Students must achieve a cut-score of 90 to meet Proficiency with Distinction and a cut-score of 75 to meet Proficiency.

### **Diploma Honors and Recognition Opportunities**

National Honors Society & Rhode Island Honors Society  
National Technical Honor Society  
Rhode Island Honor Society  
Seal of Biliteracy  
CTE Pathways Endorsements  
Proficiency Endorsement  
Various Workforce Ready Credentials & Certification Exam

## FOUR-YEAR SCHEDULING SCENARIO

Sample 9th Grade Schedule		Sample 10th grade Schedule	
<b>Period 1</b>	Exploratory Technical Rotations - Semester 1 Technical - Semester 2	<b>Period 1</b>	Geometry
<b>Period 2</b>	English 9	<b>Period 2</b>	English 10
<b>Period 3</b>	Spanish	<b>Period 2</b>	Chemistry
<b>Period 4</b>	Algebra 1	<b>Period 4</b>	Spanish 2A - Semester 1 PE/HE 10 - Semester 2
<b>Period 5</b>	Biology	<b>Period 5</b>	Technical
<b>Period 6</b>	PE/HE 9 - Semester 1 Civics - Semester 2	<b>Period 6</b>	Technical
<b>Period 7</b>	Western Civilization	<b>Period 7</b>	Technical

Sample 11th Grade Schedule		Sample 12th Grade Schedule		
			<u>A Week</u>	<u>F Week</u>
<b>Period 1</b>	Algebra 2 / Trig	<b>Period 1</b>	PE/HE 12	Senior Leadership
<b>Period 2</b>	Technical	<b>Period 2</b>	Technical	AP English 12
<b>Period 3</b>	Technical	<b>Period 3</b>	Technical	
<b>Period 4</b>	Technical	<b>Period 4</b>	Technical	US History
<b>Period 5</b>	AP English 11	<b>Period 5</b>	Technical	
<b>Period 6</b>	Physical Science	<b>Period 6</b>	Technical	Precalculus
<b>Period 7</b>	PE/HE 11 - Semester 1 Spanish 2B - Semester 2	<b>Period 7</b>	Economics	

## **STUDENT SERVICES**

### **Student Supports**

The Davies Office of Student Supports works to ensure that students receive a continuum of support. The office coordinates all activities related to supporting the education of all students. These supports include students who have Individual Education Plans (IEP), 504 plans, who are Multilingual Language Learners (MLL), students with remedial reading needs, students with social or emotional needs, student with medical needs, students identified through the Response to Intervention (RTI) process, or students in need of Homebound Instruction for documented long-term medical absences. The office consults with parents, students, teachers, support staff, guidance counselors, administrators and outside agencies to identify, target and plan for support.

Upon enrollment, Davies will ensure that required supports are provided so that each student receives a Free and Appropriate Public Education. Support Services works to ensure needed accommodations and services are provided within the general education and career and technical settings. Davies utilizes collaborative, co-teaching models of instruction, when appropriate, to ensure students are educated in the least restrictive environment.

All student plans are reviewed annually to ensure that supports and services appropriately address the individual needs.

### **Guidance Services**

Davies offers a comprehensive guidance program that promotes student achievement. The Guidance Office is responsible for student schedules, scheduling and attending parent/teacher meetings, and monitoring and counseling students regarding their technical and academic progress throughout the year.

All students have access to their Individualized Learning Plan (ILP) on the Xello platform. The ILP is a student-directed academic and career planning tool that personalizes academic and training pathways. The ILP is an educational hub that supports students in the areas of academic, career, and social/emotional learning. ILP activities include self-exploration, career exploration, career planning and goal setting.

## COURSE REGISTRATION TIMELINE

<b>Davies Scheduling Calendar</b>	
<b>Month</b>	<b>Activity</b>
January	Teacher recommendations
February-March	Counselor planning sheets / Course Verifications/Student and Parent Feedback
April-June	Master Schedule Build
July-August	Adjustments to student schedules based on Summer Enrichment success
August-September	Schedules Finalized

# ACADEMIC COURSE OFFERINGS

## English Department

### English Department Description

The English Department has created a comprehensive curriculum that is aligned to the Common Core State Standards. Each year, students read works of both fiction and nonfiction and write argumentative, informative/explanatory, and narrative essays. The goal of the English department is to develop reading, writing, and speaking/listening skills in our students that will help them to become both career and college ready. We encourage students to think critically and communicate effectively. The department offers students the opportunity to earn college credit while still in high school through our Advanced Placement offerings. Students in grades 9 and 10 can enroll in Pre AP classes which then transition into AP Language and Composition in 11th grade and AP Literature and Composition in 12th grade. Students who take either of these courses have the potential to earn three college credits per course before they have left Davies. The English Department is also running an after school Writing Center to assist students in writing for all of their subject areas.

### ELA 9 CP

1 Credit

**Grade Level:** 9

**Prerequisite:** Entrance Exam

**Course Description:**

This course is designed to examine multiple authors and genres, fiction and nonfiction as an introduction to high school literature. Through the examination of an author's style in short stories and novels, the student will demonstrate knowledge of literary conventions in both print and popular culture. In addition, students will analyze nonfiction articles that are both current and relevant. The writing process will be reviewed, and students will be expected to demonstrate proficiency in a variety of writing forms: research-based, reflective, narrative, and comparative. Grammar and structural conventions will be practiced, along with the consistent and correct use of MLA format. Students will also prepare readers' response journals in response to their selections as well as an oral presentation.

### ELA 9 Honors(Beginning Class of 2026)

1 Credit

**Grade Level:** 9

**Prerequisite:** Teacher recommendation, good academic standing

**Course Description:**

This course is designed to examine multiple authors and genres, fiction and nonfiction as an introduction to high school literature. Through the examination of an author's style in short stories and novels, the student will demonstrate knowledge of literary conventions in both print and popular culture. In addition, students will analyze nonfiction articles that are both current and relevant. The writing process will be reviewed, and students will be expected to demonstrate proficiency in a variety of writing forms: research-based, reflective, narrative, and comparative. Grammar and structural conventions will be

practiced, along with the consistent and correct use of MLA format. Students will also prepare readers' response journals in response to their selections as well as an oral presentation.

<b>Pre AP English 1</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> Teacher recommendation, good academic standing	
<b>Course Description:</b> Texts take center stage in the Pre-AP English 1 classroom, inspiring and preparing all students for close, critical reading and analytical writing. This course trains the reader to observe the small details in a text to arrive at a deeper understanding of the whole. It also trains the reader to appreciate authors' sometimes-subtle choices, developing an awareness of how words produce effects and how the conventions of the English language are used for both precision and style. As writers, students focus first on crafting complex sentences, building this foundational skill; they then move on to producing well-organized paragraphs and, as the year progresses, more sophisticated, longer-form analyses.	

<b>ELA 10 CP</b>	<b>1 Credit</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of ELA 9CP	
<b>Course Description:</b> The curriculum allows students to analyze the culture of America and share their perceptions of America--its traits, weaknesses and strengths. On a deeper level, the process and assignments push students to analyze the factors that influence America's culture, as well as reflect on their place within the culture of America. The unit breakdown is as follows: Q2: The Culture of America; Q3: The Culture of Success; Q4: The Culture of Me. Most importantly, the value of the students' efforts is the natural engagement they display throughout this curriculum. All students, including English learners, have much to say about today's society. When analyzing culture--an individual, a group, a society or a country--a focus on the United States provides a wealth of material that is accessible and dynamic.	

<b>ELA 10 Honors(Beginning with Class of 2027)</b>	<b>1 Credit</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Teacher recommendation, good academic standing, successful completion of ELA 9 Honors	
<b>Course Description:</b> The curriculum allows students to analyze the culture of America and share their perceptions of America--its traits, weaknesses and strengths. On a deeper level, the process and assignments push students to analyze the factors that influence America's culture, as well as reflect on their place within the culture of America. The unit breakdown is as follows: Q2: The Culture of America; Q3: The Culture of Success; Q4: The Culture of Me. Most importantly, the value of the students' efforts is the natural engagement they display throughout this curriculum. All students, including English learners, have much to say about today's society. When analyzing culture--an individual, a group, a society or a	

country--a focus on the United States provides a wealth of material that is accessible and dynamic.

**Pre AP English 2**

**1 Credit**

**Grade Level:** 10

**Prerequisite:** Teacher recommendation, good academic standing, successful completion of Pre AP English 1

**Course Description:**

English 2 builds on the foundation of the English 1 course, with an emphasis on the recursive moves that matter in preparing students for the challenges of college-level reading, writing, and discussion. While English 1 introduces the fundamental routines of close observation, critical analysis, and appreciation of author's craft, English 2 requires students to apply those same practices to a new host of nonfiction and literary texts. As readers, students develop a vigilant awareness of how the poet, playwright, novelist, and writer of nonfiction alike can masterfully manipulate language to serve their unique purposes. As writers, students compose more nuanced analytical essays without losing sight of the importance of well-crafted sentences and a sense of cohesion. Each unit of English 2 culminates in a writing task that reflects the rigor of similar tasks they will eventually encounter on standardized writing exams, in AP English courses, and in college classes.

**ELA 11 CP**

**1 Credit**

**Grade Level:** 11

**Prerequisite:** Successful completion of ELA 10 CP

**Course Description:**

This course is designed to examine the authors, styles, and content of British Literature. Through examination of an author's style, historical context, culture and purpose, the student will demonstrate knowledge of literary conventions in both print and popular culture. Students will continue working with The Writing Process and they will be expected to demonstrate a proficiency in rhetorical analysis and literary analysis essay writing (among others). Grammar and structural conventions will be practiced and the use of MLA formatted writing will be reinforced. Students will also be expected to prepare a Reader's Response Journal for their selections.

**ELA 11 Honors(Beginning with Class of 2028)**

**1 Credit**

**Grade Level:** 11

**Prerequisite:** Teacher recommendation, good academic standing

**Course Description:**

This course is designed to examine the authors, styles, and content of British Literature. Through examination of an author's style, historical context, culture and purpose, the student will demonstrate knowledge of literary conventions in both print and popular culture. Students will continue working with The Writing Process and they will be expected to demonstrate a proficiency in rhetorical analysis and literary analysis essay writing (among others). Grammar and structural conventions will be practiced and the use of MLA formatted writing will be reinforced. Students will also be expected to prepare a Reader's Response Journal for their selections.

<b>AP Language and Composition</b>	<b>1 Credit</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Teacher recommendation, good academic standing, successful completion of Pre AP English 2	
<b>Course Description:</b> AP English Language and Composition is an introductory college-level composition course. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situations, claims and evidence, reasoning and organization, and style.	

<b>ELA 12 CP</b>	<b>1 Credit</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful Completion of ELA 11 CP	
<b>Course Description:</b> This course is designed to examine the authors, styles, and content of American literature. Through the examination of an author’s style, historical context, American culture and purpose, the student will demonstrate knowledge of literary conventions in both print and popular culture. The Writing Process will be reviewed, and students will be expected to demonstrate a proficiency in research-based, reflective, comparative, and creative writing (among others). Grammar and structural conventions will be practiced, along with the consistent and correct use of MLA format. Students will also prepare reader's’ response journals in response to their selections as well as oral presentations.	

<b>ELA 12 Honors(Beginning with Class of 2029)</b>	<b>1 Credit</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Teacher recommendation, good academic standing, successful completion of ELA 11 Honors	
<b>Course Description:</b> This course is designed to examine the authors, styles, and content of American literature. Through the examination of an author’s style, historical context, American culture and purpose, the student will demonstrate knowledge of literary conventions in both print and popular culture. The Writing Process will be reviewed, and students will be expected to demonstrate a proficiency in research-based, reflective, comparative, and creative writing (among others). Grammar and structural conventions will be practiced, along with the consistent and correct use of MLA format. Students will also prepare reader's’ response journals in response to their selections as well as oral presentations.	



<b>AP Literature and Composition</b>	<b>1 Credit</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Teacher recommendation, good academic standing	
<b>Course Description:</b> AP English Literature and Composition is an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works.	

<b>English Intervention</b>	<b>N/A Credit</b>
<b>Grade Level:</b> 9/10	
<b>Prerequisite:</b> N/A	
<b>Course Description:</b> This is a short-term intervention class designed to identify and support students as they strive for math proficiency. Both foundational math skills and course-specific skills will be taught in one-on-one and small group settings in order to bolster student success.	

**Mathematics Department**

<b>Mathematics Department Description</b>
<p>The mission of the Davies Mathematics Department is to ensure that all students develop the skills, concepts, and problem solving techniques to become productive members in an ever-changing society. The department is composed of dedicated professionals who are passionate about teaching mathematics and committed to nurturing, developing, challenging and cultivating students' critical thinking skills throughout their program of study. Each subject addresses the CCSS in Mathematics and the Mathematical Practices by incorporating elements of problem solving and mathematical reasoning along with Number and Quantity, Algebra, Functions, Modeling, Geometry, and Statistics and Probability as set forth by the national standards. A Davies graduate will be able to effectively analyze, interpret, and communicate mathematics and persevere through problem-solving in their pursuit of postsecondary education or a career.</p>

<b>Algebra 1</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> N/A	
<b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for college and career readiness. Instructional time in this course will focus on these critical areas: properties and operations of the real number system, expressions, equations in one variable, equations in two variables, relations and linear functions, linear inequalities and modeling real world scenarios.	

<b>Pre-AP Algebra 1</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for STEM, college, and career readiness and is part of the Advanced Placement (AP) pathway of math courses. Instructional time in this course will focus on concepts that build strong conceptual understanding of more challenging Algebra 1 content through a discovery-based approach. Content includes linear equations and functions, systems of linear equations and inequalities, quadratic functions, exponent properties, and exponential functions.</p>	

<b>Geometry</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9/10	
<b>Prerequisite:</b> Algebra 1	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for college and career readiness. Instructional time in this course will focus on geometry and statistics. Critical areas in Geometry will include: properties of plane and solid figures, postulates and theorems, lines and angles, transformations, area and volume, congruence and similarity. Critical areas covered in Statistics will include, but not be limited to: measures of central tendency and probability of chance events.</p>	

<b>Pre-AP Geometry w/Statistics</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9/10	
<b>Prerequisite:</b> Algebra 1/Pre-AP Algebra 1	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for STEM, college, and career readiness and is part of the Advanced Placement (AP) pathway of math courses. Instructional time in this course will focus on concepts that build strong conceptual understanding of more challenging Geometry and Statistics content through a discovery-based approach. Content includes measurement in data, tools and techniques of geometric measurement, measurement in congruent and similar figures, and measurement in two and three dimensions.</p>	

<b>Algebra 2</b>	<b>1 Credit</b>
<b>Grade Level:</b> 10/11	
<b>Prerequisite:</b> Geometry	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for college and career readiness. Instructional time in this course will focus on these critical areas: systems of linear equations and inequalities, exponents and roots, exponential functions, polynomials, and quadratic functions.</p>	

<b>Algebra 2/Trigonometry</b>	<b>1 Credit</b>
<b>Grade Level:</b> 10/11	
<b>Prerequisite:</b> Pre-AP Geometry	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for STEM, college, and career readiness. Instructional time in this course will focus on concepts that build strong conceptual understanding of more challenging Algebra 2 content through a discovery-based approach. Content includes modeling with functions, the Algebra of functions, function families, and trigonometric functions.</p>	

<b>Pre-Calculus</b>	<b>1 Credit</b>
<b>Grade Level:</b> 11/12	
<b>Prerequisite:</b> Algebra 2	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for STEM, college, and career readiness. Instructional time in this course will focus on the skills necessary for advanced mathematical studies leading to calculus. The course builds on concepts learned in previous high school math courses, particularly Algebra 2. Theoretical mathematics principles will be used to emphasize problem solving and mental mathematics. Content includes conic sections, rational expressions and equations, trigonometric functions, graphs and identities and exponential and logarithmic relations.</p>	

<b>Calculus</b>	<b>1 Credit</b>
<b>Grade Level:</b> 11/12	
<b>Prerequisite:</b> Pre-AP Algebra 2/Precalculus	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for college and career readiness. Instructional time in this course will focus on introducing students to the basic foundations of differential and integral calculus. Students will learn how to apply various derivative and integration formulas to a variety of functions. The derivative and integral will also be used to solve appropriate real-world problems.</p>	

<b>AP Calculus</b>	<b>1 Credit</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Pre-Calculus/Calculus	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for STEM, college, and career readiness and is part of the Advanced Placement (AP) pathway of math courses. Instructional time in this course will focus on AP Calculus AB as an introductory college-level calculus course. Students cultivate their understanding of differential and integral calculus through engaging with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions as they explore concepts like change, limits, and the analysis of functions.</p>	

<b>AP Statistics</b>	<b>1 Credit</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Pre-AP Algebra 2/Precalculus/Calculus	
<p><b>Course Description:</b> This course is an introductory college-level statistics course that prepares students for STEM, college, and career readiness and is part of the Advanced Placement (AP) pathway of math courses. Students are introduced to the tools and important concepts for collecting, analyzing, and drawing conclusions from data. Technology, investigations, problem-solving, and technical writing are used to deepen students' understanding of statistics. Content includes variation and distribution; patterns and uncertainty; and data-based predictions, decisions, and conclusions.</p>	

<b>Survey of College Math</b>	<b>1 Credit</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Geometry/Algebra 2	
<p><b>Course Description:</b> This course content will be reflective of the Mathematics Common Core State Standards for college and career readiness. Instructional time in this course will focus on enforcing student skills on topics from Algebra 1 and Geometry. Topics to be covered will include ratios/proportions, expressions, equations, percents, surface and volume, probability, statistics and functions. This course is designed to prepare students to take the Accuplacer placement test.</p>	

<b>Math Intervention</b>	<b>N/A Credit</b>
<b>Grade Level:</b> 9/10	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b> This is a short-term intervention class designed to identify and support students as they strive for math proficiency. Both foundational math skills and course-specific skills will be taught in one-on-one and small group settings in order to bolster student success.</p>	

**Science Department**

<b>Science Department Description</b>
<p>The Davies Science Department provides inquiry based classes that allow students to explore and create a deeper understanding of the world around them. Students will be able to apply scientific practices as outlined in the Next Generation Science Standards and have academic conversations in all courses in order to foster scientific thinking and problem solving skills. These practices and skills also focus on improving reading and writing in science. The hands-on, data driven approach promotes students' active engagement and an investment in the learning process.</p>

<b>Biology 9</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b>          Biology is a course that focuses on a range of topics from the dynamics of ecology, to the fundamentals of evolution, to the cell as the basic unit of structure and function of living things and genetics. Laboratory exercises and development of fine lab techniques are stressed throughout. Inquiry methods are used often as a means to engage the students and have them think like scientists.</p>	

<b>PreAP Biology</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b>          PreAP Biology is a college preparatory course that focuses on a range of topics from the dynamics of ecology, to the fundamentals of evolution, to the cell as the basic unit of structure and function of living things and finally genetics. Laboratory exercises and development of fine lab techniques are stressed throughout. Inquiry methods are used often as a means to engage the students and have them think like scientists. Portfolio quality products are generated on a quarterly basis.</p>	

<b>Chemistry 10</b>	<b>1 Credit</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b>          10th grade Chemistry consists of units that address Physical Science content to include the principles of chemistry, atomic structure, chemical names and formulas and chemical reactions. Building on their knowledge from previous science courses here at Davies, students will strengthen their abilities to analyze, synthesize, critique, research, build, problem-solve and reflect on their own thinking.</p>	

<b>PreAP Chemistry</b>	<b>1 Credit</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> PreAP Biology	
<p><b>Course Description:</b>          PreAP Chemistry is a college preparatory course consisting of units that address Physical Science content to include the principles of chemistry, atomic structure, chemical names and formulas and chemical reactions. Building on their knowledge from previous science courses here at Davies, students will strengthen their abilities to analyze, synthesize, critique, research, build, problem-solve and reflect on their own thinking and are being provided a foundation to take AP courses in the future.</p>	

<b>Advanced Placement Biology</b>	<b>1 Credit</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> PreAP Biology & PreAP Chemistry	
<p><b>Course Description:</b>  AP Biology is a year-long course designed to provide high school students with a well rounded introductory college-level course that is inquiry based and focused on cultivating scientific reasoning skills. The result will be readiness for the study of advanced topics in subsequent college courses. Students who earn a qualifying score on the AP Biology Exam are eligible to receive college credit and placement in an advanced science course in college. The course is aligned to the College Board AP Biology Curriculum Framework and is based on two essential components: Science Practices and Course Content.</p>	

<b>Physics</b>	<b>1 Credit</b>
<b>Grade Level:</b> 11	
<p><b>Prerequisite:</b> N/A  ***Note: All Pre-Engineering students are REQUIRED to take Physics</p>	
<p><b>Course Description:</b>  11th grade Physics is a college preparatory course consisting of units that address Physical Science content to include the principles of motion, acceleration, motion in 2-dimensions, Newton’s laws of motion, work, momentum, waves and light, electric charges and forces, magnets, and electric currents and circuits. Building on their knowledge from previous science courses here at Davies, students will strengthen their abilities to analyze, synthesize, critique, research, build, problem-solve and reflect on their own thinking.</p>	

<b>Physical Science</b>	<b>1 Credit</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b>  The Physical Science curriculum includes units that address a range of topics from Physics, Earth and Space Science. The students have a variety of hands-on learning experiences that allow them to analyze, synthesize, critique, research, build, problem-solve and reflect on their own thinking.</p>	

## Social Studies Department

### Social Studies Department Description

The Davies Social Studies Department offers students a rigorous, and scholarly based program that utilizes technology and focused instruction to develop the analytical and writing skills that will prepare them for college and professional life and help them to become informed global citizens. The curriculum requires that students acquire the ability to engage critically with both historical and contemporary problems. Additionally, students will learn to evaluate primary source documents for their relevance to a given interpretive problem, their reliability, and their importance in history.

### Western Civilization

1 Credit

**Grade Level:** 9

**Prerequisite:** N/A

**Course Description:**

Students will examine the development of civilization with considerable attention to the contributions of the Greek, Roman, Medieval Europe, Renaissance, the Reformation, the Enlightenment, and the Scientific Revolution to the development of the modern world. After becoming familiar with the great events and personalities that have shaped the early west, students will also examine major philosophical trends that have created the modern world through primary source investigation of the Industrial Revolution, Scramble for Africa, and the World Wars.

### Civics

.5 Credits

**Grade Level:** 9

**Prerequisite:** N/A

**Course Description:**

The purpose of this course is to give students a better understanding of present day politics and to foster citizenship by acquainting them with the basic principles of United States law and the Constitution. Ultimately, the goal is to allow students to apply the practical knowledge of the United States political system that is acquired in class and bridge it to the real world. Students are required to connect specific concepts from the course to current political events through writing assignments, collaborative projects, and presentations. This will result in providing a foundation for the educated, sound political decisions that students will make in the future.

### Economics

1 Credit

**Grade Level:** 12

**Prerequisite:** N/A

**Course Description:**

Economics explores how people, businesses and governments determine wants and needs, and how those wants and needs are satisfied. In addition, the course will explore issues related to scarcity of goods and services, environmental concerns related to economics, and the role our students play as

consumers and/or producers.

**United States History**

**1 Credit**

**Grade Level:** 12

**Prerequisite:** Western Civilization

**Course Description:**

United States History emphasizes the birth of modern America and the rise of the United States as a world power. This course will include: the Age of Exploration, Immigration, civil rights, World War 1 and 2 and the Cold War. Finally, students will explore the impact economics will have had on American citizens.

**Advanced Placement United States History**

**1 Credit**

**Grade Level:** 12

**Prerequisite:** Teacher recommendation, good academic standing

**Course Description:**

Advanced Placement U.S. History is a college-level introductory course which examines the nations' political, diplomatic, intellectual, cultural, social, and economic history from the Pre-Columbian Period (1490s) to the present. The course is taught in accordance with the AP U.S. History curriculum framework, and is designed to prepare students for the AP U.S. History Exam in May.

**Sociology**

**.5 Credits**

**Grade Level:** 10-12

**Prerequisite:** N/A

**Course Description:**

This course requires students to examine the world around them through the three major sociological lenses. This requires not only a practical understanding of sociological theory, but also its application through projects and studies. Students will understand sociological lenses and their impact on research, raising questions, investigating available primary and secondary sources, analyzing evidence, and forming explanations to questions about American society.

**Psychology**

**.5 Credits**

**Grade Level:** 10-12

**Prerequisite:** N/A

**Course Description:**

This course requires students to explore the human mind, how the mind works and what is required to keep it healthy. Study includes brain science as well as the scientific methodology through the discipline. Students will be able to observe and describe behavior and mental processes to better understand them. This leads to an ability to explain, predict the behavior of themselves and others, and control their own behavior.



## World Language Department

### World Language Department Description

The Davies World Language Department offers students the opportunity to learn about others' cultures and develop proficiency in a language other than their native language at a developmentally critical time. The fundamental purpose of world language instruction is to enable students to communicate in a new language in a culturally appropriate way. The linguistic and cultural insights that come from world language study are essential for citizens in the global community and marketplace.

### Spanish 1

1 Credit

**Grade Level:** 9

**Prerequisite:** N/A

**Course Description:**

In this course, students will first begin to develop listening and speaking skills, then read and write what they can say—familiar words, commands, phrases, short sentences, and basic questions. They will learn to use predictable language in familiar settings. They will start to develop cultural awareness and the ability to recognize the products, practices, and perspectives of the culture. They will also use the language to expand their knowledge. This incorporates the practice of speaking, reading, listening and writing in the target language.

### Portuguese 1

1 Credit

**Grade Level:** 9

**Prerequisite:** N/A

**Course Description:**

In this course, students will first begin to develop listening and speaking skills, then read and write what they can say—familiar words, commands, phrases, short sentences, and basic questions. They will learn to use predictable language in familiar settings. They will start to develop cultural awareness and the ability to recognize the products, practices, and perspectives of the culture. They will also use the language to expand their knowledge. This incorporates the practice of speaking, reading, listening and writing in the target language.

### Spanish 2

.5 Credits

**Grade Level:** 10-11

**Prerequisite:** Course grade of 70 or higher in Spanish 1.

**Course Description:**

This course is designed to build on the fundamental language elements taught in Spanish 1 and continues to focus and improve on the four language skills, which are reading, writing, speaking, and listening in the target language. It will also further the study of grammar, vocabulary and cultures of Spanish-speaking countries. Students will interpret spoken and written Spanish from a variety of

sources and use the language to communicate about their classes, school activities, their daily routines, clothes shopping, as well as the community.

**Portuguese 2**

**.5 Credits**

**Grade Level:** 10-11

**Prerequisite:** Course grade of 70 or higher in Portuguese 1.

**Course Description:**

This course is designed to build on the fundamental language elements taught in Portuguese 1 and continues to focus and improve on the four language skills, which are reading, writing, speaking, and listening in the target language. It will also further the study of grammar, vocabulary and cultures of Portuguese-speaking countries. Students will interpret spoken and written Portuguese from a variety of sources and use the language to communicate about their classes, school activities, their daily routines, clothes shopping, as well as the community.

**Honors Spanish 1**

**1 Credit**

**Grade Level:** 9

**Prerequisite:** Departmental Language Assessment.

**Course Description:**

This course is designed to meet the needs of students who are in the process of gaining proficiency in speaking Spanish, but require continued study and practice in grammar, vocabulary, and writing. Emphasis will be placed on reading, writing, listening and speaking the Spanish language. The purpose is to provide bilingual students with an opportunity to recover and/or develop their language abilities while exploring topics related to their cultural backgrounds and communities. This will involve literature readings, cultural talks and presentations. Instruction will take place in Spanish only.

**Honors Portuguese 1**

**1 Credit**

**Grade Level:** 9

**Prerequisite:** Departmental Language Assessment.

**Course Description:**

This course is designed to meet the needs of students who are in the process of gaining proficiency in speaking Portuguese, but require continued study and practice in grammar, vocabulary, and writing. Emphasis will be placed on reading, writing, listening and speaking the Portuguese language. The purpose is to provide bilingual students with an opportunity to recover and/or develop their language abilities while exploring topics related to their cultural backgrounds and communities. This will involve literature readings, cultural talks and presentations. Instruction will take place in Portuguese only.

<b>Honors Spanish 2</b>	<b>.5 Credits</b>
<b>Grade Level:</b> 10-11	
<b>Prerequisite:</b> Course grade of 70 or higher in Honors Spanish 1.	
<p><b>Course Description:</b></p> <p>This course is designed to be the continuation of what was begun in Honors Spanish 1. In that it is the continued practice of the process of gaining proficiency in speaking Spanish and also the continuation of the study and practice in grammar, vocabulary, and writing. Emphasis is still placed on reading, writing, listening and speaking the Spanish language. The purpose is still to provide bilingual students with an opportunity to continue recovering and/or developing their language abilities while exploring topics related to their cultural backgrounds and communities. This will still involve literature readings, cultural talks and presentations. Instruction will take place in Spanish only.</p>	

**Physical Education and Health(Wellness)**

<b>Physical Education/ Health Department Description</b>
<p>In Physical Education, students will learn how to assess their fitness levels, design personal exercise plans, and use the exercise equipment in our weight room to develop and improve their levels of fitness. Students will also learn and apply the rules, etiquette, skills, techniques, and strategies used in various sports, leisure, and recreational activities. Students will have opportunities to demonstrate proficiency through regular, meaningful participation in fitness-focused class activities that develop and enhance health- and skill-related fitness, problem-solving skills, and communication skills. Students will evaluate their current fitness levels using the FitnessGram fitness test, write personal fitness goals, create their own personal exercise plan, and use body composition analyzers, and heart rate monitors to measure and assess their fitness levels and activity. Student performance will be assessed using the physical education participation grading system .Fitness testing will be assessed using the FitnessGram fitness testing rubric, which incorporates national standards.</p>

<b>PE/Health 9</b>	<b>.50</b>
<b>Credits</b>	
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> N/A	
<p><b>Course Description:</b></p> <p>In Health 9, students will focus on the areas of wellness, mental, and social health. Students will investigate topics including mental health awareness, stress, decision making, wellness and relationship abuse. Students will learn techniques and skills to improve wellness, the steps of effective decision making, strategies for dealing with bullying, and how to develop support systems and access available mental health resources. In addition, students will study the notions of tolerance and acceptance and how to make healthy choices by avoiding risky behaviors. Students will have the opportunity to demonstrate proficiency through a variety of performance tasks aimed at developing higher-order thinking and practical application of knowledge and skills learned. Student performance tasks will be</p>	

assessed using teacher generated, content specific rubrics and appropriate school-wide rubrics.

**PE/Health 10** **.5 Credits**

**Grade Level:** 10

**Prerequisite:** Health 9

**Course Description:**

In Health 10, students will study the subjects of family health history, benefits of a healthy lifestyle, mental illness and substance abuse. Students will examine their own family health history and apply the benefits of living a healthy lifestyle as targeted alternatives. Additionally, students will examine the growing misuse of illicit opioids and prescription drugs. Students will identify the variety, prevalence and support systems associated with mental health issues such as self-esteem, anxiety, depression and suicide. Students will have the opportunity to demonstrate proficiency through a variety of performance tasks aimed at developing higher-order thinking and practical application of knowledge and skills learned. Student performance tasks will be assessed using teacher generated, content specific and appropriate school wide rubrics.

**PE/Health 11** **.5 Credits**

**Grade Level:** 11

**Prerequisite:** Health 10

**Course Description:**

In Health 11, students will explore the themes of relationships and personal health. Students will investigate topics such as effective nutrition, abusive relationships, sexual harassment, sexually transmitted diseases, and how to access health products and services. Students will be able to demonstrate effective communication skills, identify the signs of an abusive relationship. Identify the signs and symptoms of sexually transmitted diseases, discuss reproductive health, and identify community health resources available for reproductive health products, services, and treatment. Students will have the opportunity to demonstrate proficiency through a variety of performance tasks aimed at developing higher- order thinking and practical application of knowledge and skills learned. Student performance tasks will be assessed using teacher generated, content specific rubrics and appropriate school-wide rubrics.

**PE/Health 12** **.5 Credits**

**Grade Level:** 12

**Prerequisite:**Health 11

**Course Description:**

HEALTH 12

In Health 12, students will examine the subjects first aid and emergency preparedness, analyzing healthcare and insurance options, driving under the influence and impaired driving. Students will research emergency action steps and how to provide care until help arrives. Students will also learn how to perform CPR, use an automated external defibrillator (AED), and standard first aid skills.

**FITNESS AND WEIGHT MANAGEMENT****.5 Credits****Grade Level:** 10-12

**Prerequisite:** Student must have had an 80 average or above in their most recent Physical Education class and have the recommendation of their current PE teacher.

**Course Description:**

Students who want a full year of physical education can take this elective course during the semester opposite their regularly scheduled physical education class. In these courses, students will participate in a monitored, twelve-week fitness program and learn how to effectively manage their weight and maintain healthy levels of fitness. Students will identify specific, individual health/fitness goals, perform a series of “before” measurements, and participate in regular, supervised workouts. Over the course of the semester, students will measure progress towards those goals through periodic assessments and fitness tests. Students will have the opportunity to demonstrate proficiency through regular and meaningful participation in class activities and through the development and completion of a program log. Student performance will be assessed using the Physical Education Participation Rubric and other content specific rubrics.

## ADVANCED OPPORTUNITIES /PATHWAYS TO EARLY COLLEGE CREDIT

### ADVANCED OPPORTUNITIES PATHWAYS TO EARLY COLLEGE CREDIT

Davies offers a variety of opportunities for students to advance their learning beyond high school. Whether through Advanced Placement or Dual Enrollment courses, opportunities exist for students to graduate high school with college credits. Courses listed below, are recommended for students who are in strong academic standing, and have the maturity to participate in college level work while simultaneously completing high school requirements. Teacher recommendation and a grade point average of 3.75 or higher are the required for eligibility.

#### Advanced Placement Courses

1 Credit

**Grade Level: 11-12**

**Prerequisite: Teacher recommendation. Strong academic standing.**

**Course Description:**

These courses are college-level courses for which students may receive college credit from some institutions upon successful completion of the Advanced Placement Examination. AP courses are available in a variety of disciplines. Descriptions of these courses can be found listed by discipline.  
\*See course descriptions in academic content area

#### Rhode Island Advanced Course Network

1 Credit

**Grade Level: 9-12**

**Prerequisite: N/A**

**Course Description:**

The new Rhode Island Advanced Coursework Network provides qualified high school students the chance to take an exciting catalog of college and career preparatory courses at no cost to participating students. Advanced Coursework Network courses will be offered by Rhode Island colleges and universities, community based organizations and other school districts at no cost to students and their family.

#### Dual Enrollment

High School and College Credit

**Grade Level: 9-12**

**Prerequisite: GPA of 3.75 or higher**

**Course Description:**

Dual Enrollment (early college enrollment) is defined as completing the senior year of high school and the freshman year of college at the same time on a college campus. Students are eligible for dual enrollment if they have a cumulative GPA of 3.75 or higher. All remaining graduation required credits must be completed.

**CCRI Running Start Program****High School and College Credit****Grade Level: 9-12****Prerequisite: GPA of 3.75 or higher****CCRI Course Description:**

Running Start is a program offered at the Community College of Rhode Island for high school students who demonstrate the academic achievement and maturity necessary to enroll in college courses during their senior year on a full-time basis. Applications are submitted the junior year of high school. Seniors who study at CCRI may be eligible to earn college credit and credit for high school graduation simultaneously.

## Student Support Course Offerings

<b>Academic Support</b>	<b>.5 Credits</b>
<b>Grade Level: 9-12</b>	
<b>Prerequisite: Identification through IDEA, ADA, or RTI processes</b>	
<p><b>Course Description:</b></p> <p>This course has been developed to support students with their individual needs, specified in individual education plans, which could include skills aligned to academic and technical successes. Academic Support is a place where students potentially could gain organizational, executive functioning or academic skills. The goal is to help students learn ways to become more independent learners.</p>	

<b>RTI Academic Support</b>	<b>.5 Credits</b>
<b>Grade Level: 9</b>	
<b>Prerequisite: Freshmen Repeaters</b>	
<p><b>Course Description:</b></p> <p>This course has been developed to support students who repeat the 9th grade. Students identified through the RTI process will work on skills aligned to their individual needs. The goal is to align support in order to promote academic and technical successes. Through this support class students potentially gain organizational, executive functioning or academic skills. The goal is to help students learn ways to become more independent learners.</p>	

<b>Reading</b>	<b>.5 Credits</b>
<b>Grade Level: 9-12</b>	
<b>Prerequisite: Reading Level Classification</b>	
<p><b>Course Description:</b></p> <p>This course is designed to improve reading skills for students who are identified as one or more levels below grade level. The course emphasizes strategies for reading a variety of academic and technical texts, ways to improve reading vocabulary, and resources for increasing comprehension. This goal is accomplished through an individual diagnosis of the students' present reading skills and subsequent work to address appropriate areas in order to build reading levels.</p>	



**English Language Development (ELD) - MLL Class****.5 Credits****Grade Level: 9****Prerequisite: MLL Classification****Course Description:**

9th Grade MLLs will receive small group ELD targeted to their individual level of English proficiency to support all content areas. Students will be provided with strategies to access content specific texts, as well as instruction on how to build academic and technical vocabulary. Students will focus on development of their English Language proficiency within all four language domains (i.e., speaking, listening, reading and writing).

# Technical Course Offerings

## Career & Technical Education

Davies career and technical education (CTE) provides our students with the academic, technical, and employability skills and knowledge to pursue careers and continue in postsecondary training. Davies offers 9 programs that provide students with opportunities to acquire the competencies required in today's workplace—such as collaboration, communication, critical thinking; and engagement.

Our high-quality programs and pathways address the objectives of college and career readiness and ensure that coursework is simultaneously aligned to rigorous academic standards and postsecondary expectations and informed by and built to address the skills required for high-wage high-skilled careers.

*All Davies technical programs are aligned to career field specific standards; as well as the RI CTE BOT Industry standards.*

Our students have the opportunity to participate in Work-based learning experiences with industry partners, bringing their classroom experiences to life in the real world.

## Work-based Learning Eligibility Requirements

- Must be in good standing with Academics; Attendance; and Behavior
- Must have a transcript review with your Guidance Counselor (Seniors only)
- Must receive Technical teacher recommendation
- Must receive parent/guardian approval and authorization of a transportation plan
- Must show proof of medical insurance

## Automotive Careers (Collision Repair) 9

1 Credit

**Grade Level:** 9

**Prerequisite:** Successful completion of admissions examination

### Course Description:

This course is designed to introduce students to the collision repair curriculum including the proper use of personal protective equipment, collision specific repair hand tools and equipment, and refinishing tools and equipment. All refinishing and non-structural operations will be in alignment with the I-CAR and Automotive Service Excellence (ASE) standards for collision repair.

<b>Automotive Careers (Collision Repair) 10</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Automotive Careers Grade Level 9	
<p><b>Course Description:</b>  This course is designed to introduce and develop students to metal straightening tools, procedures and techniques. Also, introduce students to proper refinishing procedures, safety and health issues and general knowledge of the collision field. Students will be taught these skills in alignment with I-car/ASE standards. Students will be introduced to basic surface prep, intro to spray gun operations, safety &amp; health issues and general knowledge of the collision repair industry.</p>	

<b>Automotive Careers (Collision Repair) 11</b>	<b>3 Credits</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Successful completion of Automotive Careers Grade Level 10	
<p><b>Course Description:</b>  This course is designed to refine the student's skills on panel preparation and train students in all refinishing operations, with more depth and focus on base coat blending, plastics and plastic repairs, and removal and installation of vehicle components. Students will also be trained on the proper MIG welding procedures and electronic estimating procedures. All refinishing operations will be in alignment with the I-CAR and ASE standards for collision repair.</p>	

<b>Automotive Careers (Collision Repair) 12</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful completion of Automotive Careers Grade Level 11	
<p><b>Course Description:</b>  This course is designed to provide a strong foundation in structural and body damage analysis &amp; estimating, damage repair both non-structural and structural in steel &amp; aluminum. This course includes advanced repair of plastics, fiberglass, and use of adhesives for plastic &amp; steel; welding with MIG, and paint &amp; refinishing techniques for solvent-borne &amp; waterborne paints systems.</p>	

<b>Automotive Careers (Technician) 9</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> Successful completion of admissions examination	
<p><b>Course Description:</b>  This course is designed to be an introduction to automotive technology. The focus is on safety and basic automotive knowledge and skills. This course includes: shop safety, information systems, drivetrain theory and identification, vehicle maintenance, tire machine and wheel balancer. All theory, hands-on tasks, and assessments are derived from the CDX Automotive curriculum which correlates with the ASE standards in Automotive Technology. Students will also recognize OSHA and EPA regulations within Automotive Careers and obtain Safety and Pollution prevention certification via the</p>	

S/P2 curriculum.

**Automotive Careers (Technician) 10**

**3 Credits**

**Grade Level:** 10

**Prerequisite:** Successful completion of Automotive Careers Grade Level 9

**Course Description:**

This course is designed to build a base knowledge of the automobile brake system which will allow students to obtain ASE certification. This course provides an in-depth overview of the operation, diagnosis, and repair of vehicle brake systems. This course emphasizes on hydraulic principles, drum and disc brakes, power brake boosters, and the ABS system. All theory, hands-on tasks, and assessments are derived from the CDX Automotive curriculum which correlates with the ASE standards in Automotive Technology. Students will also recognize OSHA and EPA regulations within Automotive Careers and obtain Safety and Pollution prevention certification via the S/P2 curriculum.

**Automotive Careers (Technician) 11**

**3 Credits**

**Grade Level:** 11

**Prerequisite:** Successful completion of Automotive Careers Grade Level 10

**Course Description:**

This course is to build a base knowledge of vehicle steering and suspension systems which will allow students to obtain an ASE certification. This course provides an in-depth overview of the operation, diagnosis, and repair of vehicle steering and suspension systems. This course emphasizes on steering and suspension component identification, repair, service, and advanced wheel alignment strategies and procedures. All theory, hands-on tasks, and assessments are derived from the CDX Automotive curriculum which correlates with the ASE standards in Automotive Technology. Students will also recognize OSHA and EPA regulations within Automotive Careers and obtain Safety and Pollution prevention certification via the S/P2 curriculum.

**Automotive Careers (Technician) 12**

**3 Credits**

**Grade Level:** 12

**Prerequisite:** Successful completion of Automotive Careers Grade Level 11

**Course Description:**

This course is designed to give students advanced knowledge and training in automotive technology, and to obtain ASE industry certifications. This course includes: engine mechanical repair, engine performance and diagnostics, electrical/electronic theory and diagnostics, electric vehicle theory and safety, and air conditioning system repair and diagnostics. Students will obtain 5 ASE certifications and the MACS HVAC certification. All theory, hands-on tasks, and assessments are derived from the CDX Automotive curriculum which correlates with the ASE standards in Automotive Technology. Students will also recognize OSHA and EPA regulations within Automotive Careers and obtain Safety and Pollution prevention certification via the S/P2 curriculum.

**Biomanufacturing 9**

**1 Credit**

<b>Grade Level:</b> 9
<b>Prerequisite:</b> Successful completion of Admissions test
<p><b>Course Description:</b>  This course is designed to introduce students to the field of Biomanufacturing using living systems to develop tools and products that improve our world and enhance our quality of life. In medicine, biomanufacturing is being used to combat diseases through cell and gene therapies as well as novel diagnostic methods and biotherapeutics. In other areas, biomanufacturing is used to produce sustainable foods, renewable fuels, investigate crimes and clean up pollution. Students will perform hands-on experiments, manipulate DNA and purify proteins, and learn about careers in biotechnology.</p>

<b>Biomanufacturing 10</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Biomanufacturing Grade Level 9	
<p><b>Course Description:</b>  This course is designed to introduce students to upstream processes in basic biologic drug production and microbiology lab methodologies and analyses. Utilizing both academic and hands-on methodologies promotes a working knowledge of upstream process, work in a regulated environment and use of technical equipment competence needed for work in these fields. A focus on both safety and skills acquisition are stressed throughout the year.</p>	

<b>Biomanufacturing 11</b>	<b>3 Credits</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Successful completion of Biomanufacturing Grade Level 10	
<p><b>Course Description:</b>  This course is designed to combine a conceptual understanding of biological and biochemical principles of science with Biomanufacturing applications with an emphasis on calibration, maintenance and use of micropipettes; multi-step laboratory processes; upstream bacterial culture and DNA manipulation, water quality analysis, and downstream protein synthesis and recovery.</p>	

<b>Biomanufacturing 12</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful completion of Biomanufacturing Grade Level 11	
<p><b>Course Description:</b>  This course is designed to introduce students with the skills to demonstrate aseptic laboratory processes; downstream protein synthesis and recovery; and use of high-end laboratory equipment to prepare students for entry-level laboratory work and/or continued postsecondary education.</p>	

<b>Education/Childcare 9</b>	<b>1 Credit</b>
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<b>Grade Level:</b> 9
<b>Prerequisite:</b> Successful completion of Admissions test
<p><b>Course Description:</b>  This course is designed to introduce students to the aspects of teaching and working with young children, to become the educators of tomorrow. Students will explore physical, social, emotional, and cognitive development of the child. The program includes introductory instruction in child development, health, nutrition, safety, and guidance. A variety of education professions will be examined.</p>

<b>Education/Childcare 10</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Education/Childcare 9	
<p><b>Course Description:</b>  This course is designed to introduce students to the aspects of teaching and working with young children, to become the educators of tomorrow. Review of grade 9 content and explore topics including building your mindset, individuals inside institutions, classroom culture, anti-biased instruction, the basics of instruction, and inside skilled teachers' toolboxes. Students will attend multiple site visits to Rhode Island Early Learning Academies for observations and classroom activities.</p>	

<b>Education/Childcare 11</b>	<b>3 Credits</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Successful completion of Education/Childcare 10	
<p><b>Course Description:</b>  This course is designed to introduce students to the aspects of teaching and working with young children, to become the educators of tomorrow. Review of grade 10 content and explore topics including teaching for empowerment, high leverage practices, understanding the school system, planning a path, being a professional, context for great teaching, community partners, colleagues, supporting and understanding your community. Students will attend multiple site visits to Rhode Island Early Learning Academies for observations and classroom activities.</p>	

<b>Education/Childcare 12</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful completion of Education/Childcare 11	
<p><b>Course Description:</b>  This course is designed to introduce students to the aspects of teaching and working with young children, to become the educators of tomorrow. Review of grade 11 content and explore topics including preparing and planning for clinical experiences, teaming with cooperating teachers and partner schools, preparing for Parapro certifications, entry level employment and or enrollment in post-secondary education. Students will attend multiple site visits to Rhode Island Early Learning Centers for observations and classroom activities to complete work-based learning graduation requirements.</p>	

<b>Electrical &amp; Renewable Energy 9</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> Successful completion of Admissions test	
<b>Course Description:</b> This course is designed to provide an introduction to the electrical field and career pathways with an emphasis on safety, National Electrical Code (NEC), residential wiring, and hand power tool usage. Students are introduced to industry standards pertaining to electrical construction.	

<b>Electrical &amp; Renewable Energy 10</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Electrical & Renewable Energy 9	
<b>Course Description:</b> This course is designed to provide students to train in residential and light commercial wiring methods including services, low-voltage, conduit bending and alarm systems. Students are preparing to attain skills in the areas of installation services, security systems and electric circuit theory.	

<b>Electrical &amp; Renewable Energy 11</b>	<b>3 Credits</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Successful completion of Electrical & Renewable Energy 10	
<b>Course Description:</b> This course is designed to make the student aware of hazards through OSHA and NEC training. The course also provides the students with the necessary industry based competencies required to make them employable in the field. The junior class shifts from residential to commercial and industrial wiring methods, materials, and practices.	

<b>Electrical &amp; Renewable Energy 12</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful completion of Electrical & Renewable Energy 11	
<b>Course Description:</b> This course is designed to build off and reinforce prior theory and electrical applications gained from prior training to expand the electrical skills and NCCER module certifications set forth in the instructional outline. Students are trained and introduced to renewable energy; solar panel installation; inverter and wind turbine installation; and estimating of low voltage security systems.	

<b>Graphics &amp; Interactive Media 9</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	

**Prerequisite:** Successful completion of Admissions test

**Course Description:**

This course is designed to introduce basic skills to build a foundation of knowledge centered around the industry. Design and layout techniques are implemented using Adobe Creative Suite including Photoshop, Illustrator, and InDesign. Students are prepared to solve problems using creativity, design, and technology to complete tasks; as well as communicating effectively using language related to the industry.

**Graphics & Interactive Media 10**

**3 Credits**

**Grade Level:** 10

**Prerequisite:** Successful completion of Graphics & Interactive Media 9

**Course Description:**

This course is designed for students to learn graphic design, typography, color concepts, and photography. Students will understand how to use digital photography equipment and digital image processing techniques. Students will apply these concepts into a variety of creative applications using Adobe Creative Cloud software. The training aligns to PrintED accreditation and Adobe Certified Professional exam objectives for Photoshop and InDesign.

**Graphics & Interactive Media 11**

**3 Credits**

**Grade Level:** 11

**Prerequisite:** Successful completion of Graphics & Interactive Media 10

**Course Description:**

This course is designed for students to learn about branding and marketing through a progressive project-based learning application. The training begins with the design and development of a logo. That logo is then used throughout the year to develop corporate branding for a food truck company. Students will understand ways to incorporate branding strategies including print, promotional, web, and mobile. The training aligns to PrintED accreditation and Adobe Certified Professional exam objectives for Illustrator.

**Graphics & Interactive Media 12**

**3 Credits**

**Grade Level:** 12

**Prerequisite:** Successful completion of Graphics & Interactive Media 11

**Course Description:**

This course is designed for students to continue to improve their graphic design and layout skills for various digital and print purposes. Students will learn how to create web pages using HTML and CSS coding. Students will also apply graphic design principles to create uncommon printed pieces. Students will demonstrate ways to use apparel and promotional products for branding and marketing purposes. The training aligns to PrintED accreditation, and students will earn certification in two separate areas of PrintED.



<b>Health Careers</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> Successful completion of Admissions Test	
<p><b>Course Description</b>  This course is designed to provide students with an introduction to the fields of healthcare, an understanding of the various healthcare agencies, organizational structure, as well as the chain of command regarding roles and responsibilities of the healthcare worker. Students will be introduced to infection control and be assessed on CNA skills related to infection control.  Students will also be introduced to medical terminology including root words, prefixes and suffixes. An overview of proper bed making skills including; making an open bed, a closed bed, an occupied bed and a surgical bed. Students are introduced to a basic overview of the human body and body systems. This course aligns with the requirements and expectations of the RI Department of Health.</p>	

<b>Health Careers</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Grade 9	
<p><b>Course Description:</b>  This course is designed to focus on preparing students for an entry-level position in healthcare as a Certified Nursing Assistant (CNA). Students receive training in the basic understanding of allied health fields with emphasis on nursing assistant skills. Students also receive training in CPR/First Aid to provide skills to respond to emergency situations, including recognizing and caring for life-threatening respiratory or cardiac emergencies in adults, children and infants. This course aligns with the requirements and expectations of the RI Department of Health.</p>	

<b>Health Careers</b>	<b>3 Credits</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Successful completion of Grade 10	
<p><b>Course Description:</b>  This course is designed to provide students the opportunity to acquire the theory and clinical hours required by the State of RI Department of Health certification as a Nursing Assistant. Students will acquire entry-level knowledge of blood and fluids; collecting and testing specimens; and EKG testing. Students will also receive training and knowledge to obtain a certificate in Caring for People With Alzheimer's Disease: A Habilitation Training Curriculum, approved by the Alzheimer's Association. This course aligns with the requirements and expectations of the RI Department of Health.</p>	

<b>Health Careers</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	

**Prerequisite:** Successful completion of Grade11

**Course Description:**

This course is designed to provide students opportunities to participate in additional pathways based on their individual interest in the healthcare field, such as: EMT; Pharmacy Technician; and the Certified Patient Care Technician (CPCT). All students participate in dual enrolled coursework for Medical Terminology and successful students will receive 3 college credits. This course aligns with the requirements and expectations of the RI Department of Health.

**Hospitality**

**1 Credit**

**Grade Level:** 9

**Prerequisite:** Successful completion of Admissions Test

**Course Description:**

This course is designed to provide students with a fundamental knowledge in culinary, pastry arts as well as the hospitality industry with the purpose to prepare them to move to the sophomore year with a strong understanding of basic but essential kitchen Knowledge and skills. Topics may include, but are not limited to: Kitchen Safety and Sanitation ;Kitchen Equipment identification; Kitchen measuring equipment and skills; and Food Preparation Skills and Terminology.

**Hospitality**

**3 Credits**

**Grade Level:** 10

**Prerequisite:** Successful completion of Grade 9

**Course Description:**

This course is designed to introduce students to learn about the fast-paced careers of the restaurant industry. Students will gain experience in both front- and back-of-the-house operations. Students begin by developing their knife skills and using appropriate cooking methods for different foods and cooking techniques. Opportunities are provided for students to learn safe methods of food handling and storage.. Through small scale food production, students develop both individual and team culinary skills.

**Hospitality**

**3 Credits**

**Grade Level:** 11

**Prerequisite:** Successful completion of Grade 10

**Course Description:**

This course is designed to introduce students to explore the exciting and developing professions in the hospitality industry. Using the National Restaurant Association's ProStart Level 1 curriculum, ServSafe and American Culinary Federation Educational Standards, training and credentialing are provided for students to learn safe methods of food handling and storage, production, and service. With the ProStart curriculum, our students learn career-building skills and get a taste for success in the industry. ProStart students will build a solid foundation for their future careers, and work toward the ProStart Level 1 National Certificate of Achievement. Students will learn the essentials of food service safety, food preparation and management, and employability skills through hands-on application. Students will continue to develop their individual and team culinary skills while working on hands-on student driven

projects and assisting to run our program's student run restaurant, The Patriot Room. Students will gain certifications in Pro-Start Level 1 and ServSafe Manager's, as well as gain 3 college credits in Food Preparation Sanitation from CMCC.

<b>Hospitality</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful completion of Grade 11	
<p><b>Course Description:</b>          This course is designed to provide our students exposure and a well-rounded education in the hospitality business, concentrating on food preparation. Our Senior will work on menu design, food cost, management, and restaurant service in our restaurant facility. Seniors students practice acquired skills and develop managerial skills as they mentor the lower grades classes during kitchen production. Successful completion will make students job and/or college ready.          Culinary seniors will work towards the following Primary certification</p> <ol style="list-style-type: none"> <li>1. ACF NOCTI Culinary Arts Certification</li> </ol> <p>Secondary Credentials (optional):</p> <ol style="list-style-type: none"> <li>1. The National Restaurant Association Educational Foundation COA</li> <li>2. ServSafe food allergen certification</li> <li>3. Gain 2 college credits in Introduction to Culinary Arts from CMCC</li> </ol>	

<b>Machine Technology</b>	<b>1 Credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> Successful completion of Admissions Test	
<p><b>Course Description:</b>          This course is designed for students to learn how to demonstrate proper general and precision measurement techniques, workplace safety, health and job skills, as well as an understanding of the various career fields and a foundation of manufacturing. Students will receive an overview of equipment used in manufacturing including manual and Computer Numerical Control (CNC) machines. The course is aligned to the National Institute for Metalworking Skills (NIMS).</p>	

<b>Machine Technology</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Grade 9	
<p><b>Course Description</b>          This course is designed to prepare students to perform basic tasks and processes on manual machines, including specific benchwork and layout skills, using measuring, layout, and inspection tools. Students will also be able to perform basic machining operations running the engine lathe, vertical mill and other manual machines, as well as learn how to use and read the measuring tools used in the machine trades. Students will also receive an introduction in basic hand and surface grinding skills. The course is aligned to the National Institute for Metalworking Skills (NIMS).</p>	

<b>Machine Technology</b>	<b>3 credits</b>
<b>Grade Level:</b> 11	
<b>Prerequisite:</b> Successful completion of Grade 10	
<b>Course Description:</b> This course is designed to receive advanced instruction and training in the use of measuring tools, material types, advanced lathe operation, advanced mill operation, surface grinding operation, layout and inspection. Introduction to Solidworks, computerized numerical control (CNC) machining and programming. The course is aligned to the National Institute for Metalworking Skills (NIMS).	

<b>Machine Technology</b>	<b>3 Credits</b>
<b>Grade Level:</b> 12	
<b>Prerequisite:</b> Successful completion of Grade 11	
<b>Course Description:</b> This course is designed to provide students with instruction and demonstrate skills in more advanced areas of manufacturing, such as CNC Milling and Turning set-up, operation, and programming, Computer Aided Manufacturing (MasterCam), and welding. Students continue to receive instruction in safety requirements and demonstrate sound safety practices through the OSHA-10 curriculum. Students will hone their technical skills through a Work Based Learning (WBL) opportunity through one of our many local manufacturers. The course is aligned to the National Institute for Metalworking Skills (NIMS).	

<b>Pre-Engineering Technology - Computer Science Discoveries</b>	<b>1 credit</b>
<b>Grade Level:</b> 9	
<b>Prerequisite:</b> Successful completion of Admissions Test	
<b>Course Description:</b> An introductory computer science course for early high school students. The course takes a wide lens on computer science by covering topics such as problem solving, programming, physical computing, user centered design and data while inspiring students as they build their own websites, apps, animations, games and physical computing systems.	

<b>Pre-Engineering Technology - Computer Science: (URI Credit Eligible: Intro to Computing and Data Science)</b>	<b>3 Credits</b>
<b>Grade Level:</b> 10	
<b>Prerequisite:</b> Successful completion of Grade 9	
<b>Course Description:</b> This course introduces computer programming in an engaging fun creative way through simulation and web programming. It also provides the computational thinking skills of programming, algorithm development and simulation and data analysis that can be used in other classes such as, Next generation Science Standards science classes.	

<b>Pre-Engineering Technology - Computer Science: AP Computer Science Principles</b>	<b>3 Credits</b>
<b>Grade Level: 11</b>	
<b>Prerequisite:</b> Successful completion of Grade 10	
<p><b>Course Description:</b>  This course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. It is a rigorous, engaging and approachable curriculum that explores programming, algorithms, the internet, big data, digital privacy and security and the societal impact of computing and many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in.</p>	

<b>Pre-Engineering Technology - Computer Science (URI Credit Eligible: Cyber Security Technology and Issues in a Global Society)</b>	<b>3 Credits</b>
<b>Grade Level: 12</b>	
<b>Prerequisite:</b> Successful completion of Grade 11	
<p><b>Course Description:</b>  This course provides an overview of the technology, threats and social impact of cybersecurity. Students will gain a broad understanding of what cybersecurity is and why it's important in their everyday lives. Topics include security breaches, cyber professions, basic cyber concepts, social engineering, cryptography, cyber threats, global impact and the future of cybersecurity.</p>	

<b>Pre-Engineering Technology - Electronics</b>	<b>1 Credit</b>
<b>Grade Level: 9</b>	
<b>Prerequisite:</b> Successful completion of Admissions test	
<p><b>Course Description:</b>  Students that have selected Pre-Engineering Technology as their skill area will embark on a semester which introduces them to career opportunities available to them both at entry level and with post-secondary education. Students will be provided with a more detailed experience related to electronics safety protocols. The fundamental nomenclature associated with electronics will be introduced. Finally, students will explore the skill of constructing electronic circuits from a schematic diagram; whereas, their exploratory experience involved circuit building from a pictorial (picture).</p>	

<b>Pre-Engineering Technology - Electronics</b>	<b>3 Credits</b>
<b>Grade Level: 10</b>	
<b>Prerequisite:</b> Successful completion of Grade 9	

**Course Description:**

This course is designed to provide students with fundamental and specialized knowledge in the areas of DC Electronics and AC Electronics. Additionally, sophomore electronics students will explore Robotics as related to construction and programming and will attain basic knowledge and skills in the areas of shop safety, commonly used hand tools, soldering equipment, along with schematic reading and interpretation. The curriculum is aligned to the electronic skill standards and competencies as identified by the International Society of Certified Electronic Technicians (ISCET). ISCET affords students the opportunity to become certified under the Electronics Systems Associate (ESA) program during their sophomore year.

**Pre-Engineering Technology - Electronics****3 Credits****Grade Level:** 11**Prerequisite:** Successful completion of Grade 10**Course Description:**

This course is designed to adhere to the electronic skill standards and competencies as identified by the International Society of Certified Electronic Technicians (ISCET). Students are afforded the opportunity to become certified under the Electronic Systems Associate (ESA) program. Students are provided with the fundamental and in-depth knowledge in the areas of semiconductors; electronic circuits, mechanical engineering, as well as an understanding of product technologies, design and high level troubleshooting.

**Pre-Engineering Technology - Electronics****3 Credits****Grade Level:** 12**Prerequisite:** Successful completion of Grade 11**Course Description:**

This course is designed to provide students with the fundamentals and specialization in the areas of Digital Electronics. At this level, students have a strong understanding of the emphasis of teamwork; safety; problem solving; and technical applications which are embedded in our work-based learning program.

**Pre-Engineering Technology -Robotics****1 Credit****Grade Level:** 9**Prerequisite:** Successful completion of Admissions test

**Course Description:** This course is an introduction to Robotics and Mechanical Engineering. Students will be taught the fundamental theory of robots and its mechanical, electrical and electronic functions. The practical aspects of this course is the construction of a working robot. Students will become familiar with the mechanical design of robot systems, and learn basic electro-mechanical, radio control and coding components needed to create robotic systems.

**Pre-Engineering Technology - Robotics**

**3 Credits**

**Grade Level:** 10

**Prerequisite:** Successful completion of Grade 9

**Course Description:**

This course will teach industry robotics and engineering standards. Students will become familiar with the mechanical design of robot systems, and learn basic electro-mechanical and coding components needed to create robotic systems. SolidWorks (an Industry based CAD software program) will be introduced.

**Pre-Engineering Technology - Robotics**

**3 Credits**

**Grade Level:** 11

**Prerequisite:** Successful completion of Grade 10

**Course Description:**

This course students will learn industry robotics and engineering standards. Students will become familiar with the mechanical design of both land and air(drone) robot systems, and gain advanced experience with electro-mechanical systems, sensors and coding components. Juniors will be introduced to automation and robotic manufacturing. Students will continue learning advanced features of SolidWorks which leads to the introduction of 3-D printing.

**Pre-Engineering Technology - Robotics**

**3 Credits**

**Grade Level:** 12

**Prerequisite:** Successful completion of Grade 11

**Course Description:**

This course will prepare students for robotic automation and manufacturing career skills. Students will complete the Pre-Engineering/Engineering NOCTI (National Occupational Competency Testing Institute) Industry Based Assessment. The Senior Mechanical and Robotics Engineering course will prepare students for a SkillsConnect Work Ready Assessment in Robotic Automation and receive a certificate of achievement upon successful completion.

# Glossary of Terms

**Advanced Placement (AP)** A program of tertiary-level courses and examinations, taught by specially qualified teachers, that provides opportunities for secondary school students to earn undergraduate credits for university courses. The schools and teachers offering AP programs must meet College Board requirements and are monitored by the College Board.

**504:** Civil rights law prohibiting discrimination against individuals with disabilities by federally assisted programs or activities.

**Individual Learning Plan (ILP):** A plan primarily authored by students themselves, with guidance from their school advisors, parents, and community contacts. The ILP helps students focus on goals and how to use the time in high school to accomplish personal objectives, in conjunction with completing graduation requirements.

**Individual Education Plan (I.E.P.):** Students with certain special needs, as specified by the Individuals with Disabilities Education Act (IDEA), have a legal right to a special plan written by a multidisciplinary team. After a series of tests and observations determine the child's need for an IEP, a team (generally including a special education teacher, a classroom teacher, a building principal, a psychologist, and the child's parents or guardians) designs a program of services to blend the best methods of teaching with the most conducive learning environment for the child.

**Multilingual Language Learners (MLL):** Linguistically and culture diverse students who have been identified through reliable and valid assessments having levels of English language proficiency that preclude them from accessing, processing, and acquiring unmodified grade level content in English, and thereby, qualifying for support services. (WIDA Consortium, 2004)

**New England Association of Schools and Colleges (NEASC):** Regional accreditation that examines three broad areas (academics, civic, and social). The process of evaluation and accreditation is based on teaching and learning standards (mission, and student expectations, curriculum, instruction and assessment)) and support standards (leadership and organization, school resources for learning, community resources for learning)

**Personal Literacy Plan (PLP):** Refers to the specific literacy programs that are mandated in state law and by the RI Board of Regents. Although labeled a personal literacy program or plan, the focus is on the improvement of student reading proficiency as required by law and regulations.

**Proficiency-Based Graduation Requirements (PBGRs):** Ensures that students are proficient in six content areas (English language arts, science, social studies, arts and technology). Additionally each high school must have chosen at least two diploma assessments to validate student achievement in these six core areas and the relevant applied learning standards.

**Response to Intervention (RTI):** Is a process of determining appropriate support and interventions to supplement the core curriculum to meet the needs of all learners. This framework for instruction bases decisions on benchmark and progress monitoring data to improve achievement. This model ensures that student needs are identified early, appropriate instruction/interventions are implemented and student progress is monitored for program efficacy and decision making.





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