



RiverTech
at Goodwin University

Program of Studies

2026-2027

Director: Mr. Mark Ambruso

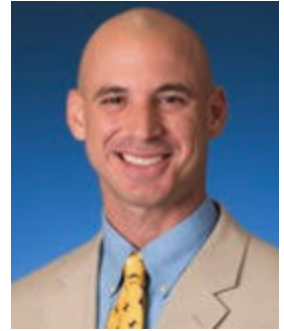
RiverTech at Goodwin University

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Message from the Director

RiverTech is an innovative technical magnet high school that prepares scholars for success in college, careers, and the industries of tomorrow. Through rigorous academics, hands-on technical education, and the development of professional, technical, and leadership skills, scholars graduate prepared for multiple pathways. In partnership with Goodwin University and the University of Bridgeport, scholars can earn more than 60 college credits, complete an associate degree while in high school, and graduate with industry-recognized certifications and credentials that provide a competitive advantage in college and the workforce.



Scholars will complete all Connecticut State Graduation Requirements while engaging in a cutting-edge curriculum centered around emerging technologies, entrepreneurship, future-ready learning, and the intentional development of employability skills. Through design-thinking experiences and partnerships with Connecticut industry leaders, scholars will apply their learning to authentic, community-based challenges. As they progress through high school, scholars will design, build, and present solutions while developing the communication, collaboration, professionalism, adaptability, leadership, and problem-solving skills needed for Industry 5.0 and the modern workforce. Opportunities for internships, pre-apprenticeships, apprenticeships, and workforce experiences will further connect classroom learning to real-world careers and reinforce workplace expectations and career readiness.

RiverTech's instructional model is built around four technical focus areas connected by a central hub of essential workplace and employability skills. This "spokes and hub" approach ensures that professionalism, communication, collaboration, innovation, accountability, and leadership are embedded throughout every aspect of the RiverTech experience.

Scholars will have opportunities to explore fields such as:

- Automation (drones, robotics, and industrial automation)
- Production and Fabrication (CNC machining, welding, and quality control)
- System Integration (electronics and design thinking)
- SMART Factory (data analytics, cybersecurity, and artificial intelligence)

Proper planning is the key to your future success in a rapidly changing world. In selecting courses, it is important to communicate with your classroom educators, parents/guardians, and school counselors. They can help guide you through this process and ensure that you are taking the proper fit coursework that ensures that graduation requirements are achieved, skills are developed, and that you are prepared for your future after graduation.

Good Luck, and wishing you a successful 2026-27 school year.

Respectfully,

Mark Ambruso
Director

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District Core Values

Demanding **equity**, providing **access**, facilitating **growth**, encouraging **leadership** and expecting **excellence** is at the core of Goodwin University Magnet School System. Our daily decision-making and operations will function according to these tenets that support our community, which includes our scholars, families, staff and external partners.



DISTRICT VISION, MISSION, AND EQUITY STATEMENT

Vision Statement

All members of the Goodwin University Magnet School System are empowered to advocate for a just and sustainable world while developing competencies for future success within a transformative PreK-early college system.

Mission Statement

The Goodwin University Magnet School System breaks down barriers while celebrating the many talents within our community. Partnering with families, educators, and the community, we challenge our scholars to take ownership of their learning through authentic, innovative pathways.

Equity Statement

The Goodwin University Magnet School System intentionally disrupts the historical imbalance of power and privilege that continues to marginalize our scholars and community. As a reflective system we strive to eradicate the biases and prejudices of race, socioeconomic status, gender identity and expression, education, age, ability, ethnicity, culture, sexual orientation, language, nationality, and religion that impact our scholars as they pursue their education. Therefore, we honor and affirm the diverse experiences of others to empower scholars to create a more just and equitable world.

RIVERTECH MISSION & VISION STATEMENT

Mission Statement

To empower students with the expertise, technical skills, and problem-solving abilities needed to thrive in the ever changing world of advanced manufacturing and entrepreneurial leadership. Through rigorous academics, hands-on technical training, and real world business experience with industry partners, RiverTech prepares graduates to be innovative thinkers, collaborative team members, and industry-ready leaders. We are committed to fostering curiosity, design thinking, and a lifelong passion for learning, ensuring that our students are ready to shape the future of manufacturing, develop their own businesses, and thrive in a global economy.

Vision Statement

An active learning community where students become skilled at leading-edge and emerging manufacturing technologies, think creatively to solve real-world challenges, and lead with integrity. By integrating innovation with entrepreneurial thinking into every aspect of learning, we will inspire the next generation of makers, business innovators, and industry-ready leaders who build a technology-driven future.

Magnet Standards:

- **Magnet Standard 1. Collaboration, Teamwork & Self Actualization**
 - **Graduation Domain 1. Promoting well being of self and others**
 - 1.1 Advocate for and respect personal beliefs and ideas
 - 1.2 Commit to continuous learning and self-improvement
 - **Graduation Domain 2. Using logical and rational thought processes to navigate real-world challenges**
 - 1.3 Analyze situations critically through diverse perspectives
 - 1.4 Make logical, evidence-based decisions and adjust opinions with new information
 - **Graduation Domain 3. Ready to succeed on college or career**
 - 1.5 Communicate ideas clearly and concisely
 - 1.6 Collaborate effectively, valuing others' ideas, opinions, and expertise toward shared goal
- **Magnet Standard 2. Industry Readiness, Safety & Professional Responsibility**
 - **Graduation Domain 1. Promoting well being of self and others**
 - 2.1 Apply a management strategy in order to collaborate effectively in team environments and individually
 - 2.2 Identify and apply stress-management strategies to promote psychological safety for self and others
 - **Graduation Domain 2. Using logical and rational thought processes to navigate real-world challenges**
 - 2.3 Consistently follow safety protocols in both lab and workplace environments

- **Graduation Domain 3. Ready to succeed on college or career**
 - 2.4 Develop a realistic college or career plan aligned with personal goals and demonstrate soft skills
 - 2.5 Demonstrate professionalism, integrity, and strong employability skills in academic and workplace settings
- **Magnet Standard 3. Design Thinking & Problem Solving**
 - **Graduation Domain 1. Promoting well being of self and others**
 - 3.1 Empathize and evaluate ideas respectfully
 - **Graduation Domain 2. Using logical and rational thought processes to navigate real-world challenges**
 - 3.2 Apply a systematic approach to navigate real-world challenges
 - **Graduation Domain 3. Ready to succeed on college or career**
 - 3.3 Construct solutions through iteration

RiverTech Magnet Standards Matrix			
	Graduation Domain 1: <i>Promoting Well Being of self and others</i>	Graduation Domain 2: <i>Using logical and rational thought processes to navigate real-world challenges.</i>	Graduation Domain 3: <i>Ready to succeed in college or career</i>
Magnet Standard 1: <i>Collaboration, Teamwork & Self Actualization</i>	1.1 Advocate for and respect personal beliefs and ideas 1.2 Commit to continuous learning and self-improvement.	1.3 Analyze situations critically through diverse perspectives 1.4 Make logical, evidence-based decisions and adjust opinions with new information	1.5 Communicate ideas clearly and concisely 1.6 Collaborate effectively, valuing others' ideas, opinions, and expertise toward shared goals
Magnet Standard 2: <i>Industry Readiness, Safety & Professional Responsibility</i>	2.1 Apply a management strategy in order to collaborate effectively in team environments and individually 2.2 Identify and apply stress-management strategies to promote psychological safety for self and others	2.3 Consistently follow safety protocols in both lab and workplace environments.	2.4 Develop a realistic college or career plan aligned with personal goals and demonstrate strong soft skills. 2.5 Demonstrate professionalism, integrity, and strong employability skills in academic and workplace settings.
Magnet Standard 3: <i>Design Thinking & Problem Solving</i>	3.1 Empathize and evaluate ideas respectfully	3.2 Apply a systematic approach to navigate real-world challenges	3.3 Construct solutions through iteration

Graduation Requirements for RiverTech Scholars:

GRADUATION REQUIREMENTS

For graduation from RiverTech, scholars must earn a minimum of 32 credits, including:

CT Graduation Requirements	Subjects	Credits	Mandatory Courses or Equivalents
Career Technical Education (CTE) Program (12 credits)	Grade 9	3	<i>Exploratory Courses</i>
	Grade 10	3	<i>Pathway Courses</i>
	Grade 11	3	<i>Pathway Courses/Internships</i>
	Grade 12	3	<i>Pathway Courses/Internships</i>
Humanities (9 credits)	English	4	<i>1 English credit each year for 4 years</i>
	Social Studies	3	<i>Civics and US History</i>
	Fine Arts	1	<i>Art or Music</i>
	Elective	1	<i>May be any course that is above and beyond a graduation requirement</i>
STEM (9 credits)	Mathematics	3	<i>Algebra 1</i>
	Science	3	
	Technology/ STEM Elective	-	<i>CTE coursework covers this requirement</i>
Other Requirements	World Language	1	<i>Spanish</i>
	Physical Education	1	<i>PE</i>
	Health	1	<i>Health/Wellness Course</i>
	Business	1	<i>Financial Literacy</i>
Mastery Based Diploma (1 credit)	Capstone Experience	1	<i>Senior demonstration project and exhibition</i>
		32	

Grade Level Promotion Requirements for RiverTech

Promotion to the next grade level is based on successful completion of required coursework and accumulation of the minimum number of credits established by RiverTech.

Grade Promotion		
Class	Credits	Credit Requirements
For Grade 10	8	(1) ELA (1) Mathematics (3) CTE*
For Grade 11	16	(2) ELA (2) Mathematics (1) Science (1) Social Studies (6) CTE*
For Grade 12	22	(3) ELA (3) Mathematics (2) Science (2) Social Studies (1) World Language (9) CTE*

Note: RiverTech's technical programs follow a sequential curriculum, successful completion of technical coursework is essential for continued progression.

Summer School

Students who do not meet the promotion requirements must recover deficient credits through district-approved credit recovery opportunities, which may include summer school or other approved programs, when available. Summer school tuition is the responsibility of the parent/guardian unless the student qualifies for reduced-cost or no-cost participation based on district eligibility criteria. Students who successfully complete required credit recovery before the start of the next school year may become eligible for promotion.

In transfer situations, the Director may review individual cases and make promotion determinations based on the student's overall academic progress on an individual basis.

Program Considerations

- Scholars must successfully complete all required prerequisite courses before enrolling in the next course in the sequence.

- A failed course may be repeated to satisfy a prerequisite or graduation requirement; however, credit is awarded only once for the successful completion of that course.
- Any required graduation course that is failed must be retaken during summer school (when available) or in the next school year.
- Because RiverTech utilizes a specialized instructional schedule, specific course availability may vary by term or academic year. Consequently, scholars might be required to fulfill certain academic requirements via credit recovery programs, summer sessions, or subsequent course offerings to ensure continued progress toward graduation.

Class Rank at RiverTech

- RiverTech does not rank scholars according to Grade Point Average. The University of Connecticut awards scholarships to the two seniors in the senior class with the highest Grade Point Averages. This is determined using the year end Junior Grade Point Average.

Cancellation of Course or Programs

- Courses or programs listed and/or described in this document are subject to change at any time due to budgetary limitations, insufficient enrollments, and for other reasons determined by the RiverTech Director.

Authority of the Director

- The RiverTech Director shall have the final authority on issues regarding course selection and granting credits. This shall include, but not be limited to, determination of credits for transfer scholars, exceptions to prerequisites, level changes, and diploma eligibility.

Grade Point Average

4-point numeric system

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
4.333	4.0	3.667	3.333	3.0	2.667	2.333	2.0	1.667	1.333	1.0	.667	0
100-97	96-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-50

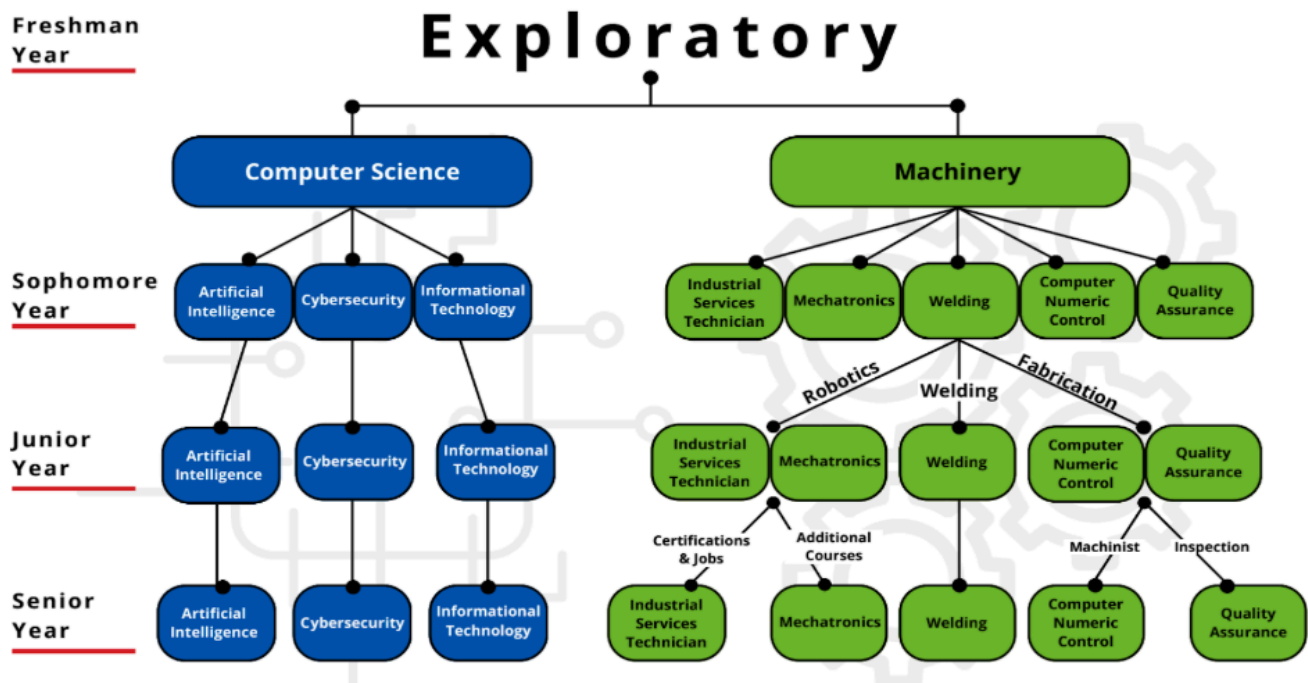
Honor Roll

The honor roll is computed at the end of each quarter based on the grades in all subjects. Scholars must be enrolled in a minimum of nine RiverTech credit bearing courses to be eligible for honor roll consideration. High honors requires an A- or better in all subjects. Honors requires a B- or better in all subjects

PATHWAYS

RiverTech has four focus areas (spokes) and a central theme (hub) that is evident in all parts of the curriculum. The design is similar to the spokes and hub of a wagon wheel, where the focus areas are the spokes and essential workplace skills are the hub. These reflect the skills that scholars will need to be future ready and enter into Industry 5.0.

The four focus areas include Robotics & Automation, Smart Factory, Production/Fabrication, and System Integration.



Grade 9 Exploration

All Grade 9 students participate in four exploratory technical courses designed to expose them to a broad range of emerging technologies, industry practices, and career opportunities. These experiences provide students with foundational skills while helping them discover their interests and strengths across multiple technical disciplines.

SMART FACTORY

Grade 9

1 year - 1 credit

In this exploratory course, 9th graders will gain an introduction to a SMART Factory. The first unit introduces the students to what a smart factory is through the design of a smart rover. The second unit will have the students look at what cloud computing is and the different careers they can go into with this knowledge. The 3rd unit will look at artificial intelligence and how it is being used to solve problems on a factory floor. The final unit will have the students look at cybersecurity and data analytics and how these informational pieces work to help manufacturing centers and factories work at their maximum level.

SYSTEMS INTEGRATION

Grade 9

1 year- 1 credit

In this introductory course, freshmen will explore the different components of being IT support. This includes the soft skills needed to provide the support and the role of an IT technician. They will explore the tools and materials used by an IT technician, diagnosing hardware issues and understand the components of a computer.

ROBOTICS & AUTOMATION

Grade 9

1 year- 1 credit

This course introduces students to the exciting world of robotics and automation, where mechanical systems, electronics, and programming come together to solve real-world problems. Students will learn how robots are designed, built, and programmed to perform tasks in advanced manufacturing industries.

PRODUCTION & FABRICATION

Grade 9

1 year- 1 credit

This course provides students with a hands-on introduction to the principles, processes, and technologies used in modern production and manufacturing. Students will explore how raw materials are transformed into finished products through various methods including machining, assembly, quality control, and automated systems.

Grade 10: Strand Concentration

At the conclusion of Grade 9, students will select a concentration area and begin a more focused course of study in either Computer Science or Manufacturing/Production. This pathway selection allows students to deepen their technical knowledge, engage in increasingly specialized learning experiences, and prepare for advanced coursework, industry credentials, postsecondary education, and future careers.

Computer Science Pathway	Manufacturing/Production Pathway
Students focus on programming, data systems, artificial intelligence, robotics, automation, and cybersecurity	Students focus on engineering processes, advanced manufacturing, fabrication, quality control, and systems production.
Intro to Computing I (CPSC101)	Intro to Manufacturing (BMM100)
Intro to Computing II (CPSC102)	Manufacturing Math (BMM140)
Lean Manufacturing (BMM210)	Lean Manufacturing (BMM210)
CompTIA ITF+	Materials & Processes in Manufacturing (BMM220)

Goodwin University Concurrently Enrolled:

BMM100: Introduction to Manufacturing

1 credit - 3 college credits

This course provides a comprehensive introduction to the field of manufacturing. It introduces the student to the structure and operations of the well-running manufacturing organization. The lean production process is described, as well as the controls needed to ensure that high-quality products are manufactured at a competitive cost. The importance of meeting customer requirements is stressed. Functions that support the production process such as Quality Management and Logistics and the Supply Chain are evaluated. The role and importance of the suppliers to the company is explored. The efficient use and maintenance of production equipment is explained. Problem-solving techniques are defined and their usage is described. Several

inventory techniques are compared. Interpersonal skills used in leadership, teaming and meetings are emphasized. Advanced manufacturing equipment, processes and techniques are introduced.

Goodwin University Concurrently Enrolled:

BMM140: Principles in Manufacturing Mathematics

1 credit - 3 college credits

This course begins with a review of basic operations of numbers, fractions and decimals. It then covers the practical mathematics that every machinist is expected to use in the shop in the creation of machined parts and maintenance of tools and fixtures. This includes common fraction to decimal and vice-versa conversions, inch to metric and vice-versa conversions, calculating part and feature dimensions and locations, calculating speeds and feeds, calculating tap drill sizes with formulas and charts, converting surface feet per minute to RPM's, calculating tapers for machine set-up, plane geometry calculations, sine bar set-up, measurements of right triangles, angular and simple indexing calculations.

Goodwin University Concurrently Enrolled:

BMM210: Lean Manufacturing Principles

1 credit - 3 college credits

This course introduces the student to the philosophical background, historical development, and fundamental concepts of lean manufacturing with a focus on the Toyota Production System. Students explore lean strategies around inventory, lead time, and cultural change requirements.

Students learn strategies for lean implementation, planning, goal setting and sustaining gains. The course also applies to the application of lean disciplines and concepts to service and support industries. The use and implementation of lean disciplines promote continuous improvement, eliminate waste, reduce operating cost, improve quality, and achieve measurable improvement in customer satisfaction.

Goodwin University Concurrently Enrolled:

BMM220: Materials and Processes in Manufacturing

1 credit - 3 college credits

Students are provided with essential information on material properties, material behaviors and material manufacturing processes. The atomic, crystal, grain and defect structure will be introduced, and their effect on the mechanical properties of materials will be presented. Equilibrium phase diagrams will be discussed. An understanding of the properties of iron alloys and steels will be developed. Material processing techniques such as heat treatment, casting, metal forming, welding, coatings and adhesive bonding will be covered. Powder metallurgy processing and material processes will be introduced along with a brief introduction to non-destructive test (NDT) methods.

University of Bridgeport Concurrently Enrolled:

CPSC101: Introduction to Computing I

1 credit - 3 college credits

Introduction to high level languages, data types, subprograms; arrays and records. Object-Oriented Programming, classes, inheritance, Algorithmic development and software design concepts.

University of Bridgeport Concurrently Enrolled:

CPSC102: Introduction to Computing II

1 credit - 3 college credits

Introduction to data structures. Top-down design and structured programming, debugging. String processing, stacks, queues, lists, linked lists, trees, hash tables. Searching and sorting.

CompTIA (Computer Technology Industry Association)

1 credit

The essential certification for anyone exploring a career in tech. It provides you with the foundational knowledge and hands-on skills needed to navigate today's digital world, giving you the confidence to take the first step toward a tech-related career. CompTIA Tech+ focuses on practical, real-world skills that help you understand core tech concepts, troubleshoot basic issues, and build a strong foundation for future learning and growth in the tech industry.

Grade 11: Pathway Selection

<i>Production/Fabrication</i>			<i>Robotics/Automation</i>	<i>Systems Integration</i>		<i>Smart Factory</i>	
<i>Welding Technology (Certificate)</i>	<i>CNC Machining (Associate's)</i>	<i>Quality Management Systems (Associate's)</i>	<i>Manufacturing Engineering Technology (Associate's)</i>	<i>Industrial Service Technician (Certificate)</i>	<i>Computer Technician (Certificates)</i>	<i>AI/Data Analytics (Certificate)</i>	<i>Cybersecurity (Certificate)</i>
BMM151 - Welding Safety	BMM222 - Technical Drawings & Specifications	BMM222 - Technical Drawings & Specifications	BMM222 - Technical Drawings & Specifications	BMM187 - Mechanical Drives & Kinematics	CompTIA - ITF+ Certification	CPSC443 - Introduction to AI	CYBER201 - Ethical Hacking
BMM153 - Welding Principles	BMM175 - CNC Machining I	BMM224 - Metrology & Calibration	BMM181 - Introduction to Mechatronics	BMM181 - Introduction to Mechatronics	CompTIA - A+ Certification	ENGR201 - AI Literacy	CYBER202 - Cybersecurity Fundamentals
BMM155 - Welding Fabrication	BMM110 - Technology in Adv. Mfg.	BMM226 - Principles of Quality Management	BMM190 - Computer Aided Design - CAD	BMM190 - Computer Aided Design - CAD	Elective	TBD	Elective
BMM157 - Thermal Cutting	BMM240 - CAM I	BMM228 - Quality Management & Supplier Integration	BMM183 - Basic Electrical	BMM183 - Basic Electrical	Elective	TBD	Elective
	OS101 - Team Dynamics & Individual Skills	BMM235 - Layout Inspections	BMM185 - Hydraulics & Pneumatics	BMM185 - Hydraulics & Pneumatics	Elective	TBD	Elective

*An associate's degree requires additional coursework beyond the technical offerings

Academic & Elective Courses

Art

Digital Art

0.5 credits

In this half-year project-based, entry-level art elective, scholars will explore different types of art creations using a digital medium. Students will utilize various software programs to create their art. They will learn about various industries, design principles and processes, how to use appropriate file formats, and image controls. (Not Offered in the 26-27 school year)

College/Career

Digital Portfolio

0.5 credit

In this half-year course, scholars will create the digital portfolio that will house their work for their time at RiverTech. The work demonstrates growth towards mastery of the graduation domains of promoting well-being of self and others, applying logic and reason to navigate real world problems, and readiness to success in college and career, as well as our Magnet Standards of collaboration, industry readiness, and design thinking & problem solving. The work will be presented at scholar-led conferences culminating in the senior Capstone Presentations. (Not Offered in the 26-27 school year)

Exploring Business (Introductory Course)

1 credit

Introduction to Business provides scholars with an overview of the modern business world and the role business plays in the global economy. Topics include entrepreneurship, marketing, management, finance, economics, customer service, ethics, and business communication. Scholars develop workplace readiness skills such as professionalism, collaboration, problem-solving, and effective communication while exploring a variety of career pathways. Scholars gain the foundational business knowledge and employability skills needed for success in future technical programs, college, and careers. Throughout the course, scholars develop and maintain a digital portfolio that showcases their growth, achievements, and learning experiences throughout their high school career. The digital portfolio serves as the foundation for scholar-led conferences each year and culminates in the senior Capstone Presentation.

Financial Literacy

1 credit

This course is designed to introduce scholars to personal finance topics that will prepare them for life after high school and beyond:

- Identify different types of jobs and careers where wages and salaries depend on a worker's productivity and skills.
- Differentiate between gross, net, and taxable income.
- Calculate the amount of taxes a person is likely to pay.

- Develop a budget to allocate current income to necessary and desired spending, including estimates for both fixed and variable expenses.
- Describe how inflation affects purchase decisions and the price of goods and services.
- Analyze social media marketing and advertising techniques designed to encourage spending.
- Investigate common types of consumer fraud and unfair or deceptive business practices, including online scams, phone solicitations, and redlining.
- Compare and contrast the features of mobile payment accounts, cryptocurrency accounts, and checking/savings accounts.
- Explain how traditional IRAs (individual retirement accounts), Roth IRAs, and education savings accounts provide incentives for people to save.
- Describe how credit card grace periods, methods of interest calculation, and fees affect borrowing costs.
- Explain the role the FAFSA plays in applying for college financial aid. Identify scholarships and grants for which they are eligible.
- Analyze the conditions under which it is appropriate for young adults to have life, health, and disability insurance.
- Recommend types of insurance needed by people with different characteristics.
- Understanding the benefits of participating in employer sponsored retirement savings plans and healthcare savings plans.

English

ENG 9:

1 year - 1 credit

The content of this course centers on the themes of Self, Society, and Diversity; it enables scholars the ability to explore who they are as individuals, how they are part of a global society, and the lifestyle, cultures, traditions and experiences of others. Scholars will broaden their understanding of multicultural literature by drawing upon personal experiences, discussions, and presentations as they expand their understanding of our diverse society. Scholars will create original pieces of writing by identifying and analyzing various works of literature. Scholars will develop an awareness of the relationship between life and literary experience while completing all objectives of grade 9.

ENG 10:-

1 year- 1 credit

The content for this course will focus on writing. Scholars will start by analyzing the author's craft in the first unit, looking at how literary techniques shape the meaning of text and applying that knowledge to their own writing. Scholars will then move into persuasive techniques and understanding themes. Scholars will deepen their understanding by making an argument and using evidence to support a claim.

Health & Wellness

Anticipated courses to be added in for the 2027-28 school year are Health & Wellness and Health & Wellness 2.

Physical Education

Anticipated courses to be added in for the 2027-28 school year are Individual/Team Sports and Individual/Team Sports 2.

Mathematics

Algebra 1

1 year - 1 credit

This course emphasizes algebraic language, structure, concepts, and skills. The skills developed in this class will provide the mathematical foundation necessary to be successful in higher-level mathematics courses. Algebra uses variables to generalize and extend the laws of arithmetic. Major topics include: data representation, simplifying algebraic expressions, solving equations and inequalities, linear functions, and real-world applications of algebra.

Geometry

1 year- 1 credit

In this course, scholars will explore relationships between various types of figures and their properties. Throughout the course, inductive and deductive reasoning skills will be developed and integrated through advanced manufacturing applications. Utilizing manipulatives and technology, scholars will explore and develop mathematical concepts to further geometric understanding. Major topics include: basics of geometry, segments and angles, parallel and perpendicular lines, triangle relationships, congruent triangles, quadrilaterals, similarity, polygons and area, surface area and volume, right triangle trigonometry, and circles.

Music

Anticipated courses to be added in for the 2027-28 school year are Chorus, Modern Band, and Music Technology.

Science

Integrated Science

1 year- 1 credit

In this course, freshmen will look at the world through the lens of Earth, Life, and Physical Science. The freshman will investigate the forces acting on both Earth and space, explore how radiation affects humans, and how to design more reliable energy systems. Students will also be building their understanding of the Earth to

apply it to the surface of Mars. Students will be engaged in scientific explorations as well as dialogues that deepens their understanding of the world around them.

Biology

1 year- 1 credit

This course will explore the study of life with a focus on the conditions and organisms. It examines all aspects of life, from tiny cells that can only be seen with a microscope up to entire ecosystems with plants and animals. This course will encourage you to connect NGSS topics like cells, genetics, evolution and ecology and apply biological knowledge within your local community as well as globally.

Social Studies

Modern World History

1 year - 1 credit

In this required course for 10th graders, scholars will examine how the world has been shaped socially, politically, religiously, and culturally over the last millennia. Scholars will analyze primary and secondary sources; develop historical arguments; make historical connections; and utilize reasoning about comparison, causation, and continuity and change over time.

Civics

1 year- 1 credit

Scholars at RiverTech will learn how to proactively participate in the political process in Civics, a state required course. Early units of study will help scholars understand the purpose of government and the functionality of American government. Civics at RiverTech will challenge scholars to develop their own political perspectives on a variety of issues. The course will culminate with scholars creating a portfolio that showcases their understanding of civic engagement and responsibility. More specifically, scholars will identify and research an issue of civic importance, think critically about action steps, and participate in the democratic process by completing and evaluating their action plan.

Support

Academic Enrichment

1 year - No Credit

Academic Enrichment is a year-long course for first- and second-year scholars designed to strengthen foundational reading, writing, and math skills while developing critical thinking, problem-solving, executive functioning, and effective study habits. Diagnostic assessments are used to identify individual learning needs, allowing instruction to be personalized through small-group lessons, targeted skill development, and flexible learning groups. The course also emphasizes organization, time management, study skills, and other academic skills that support success across all subject areas.

World Language

Spanish 1

1 year - 1 credit

This course is designed as an introduction to the Spanish language and Hispanic cultures. Students will practice speaking, listening, reading, and writing in a cultural context. Scholars will identify and utilize new vocabulary words and acquire basic grammatical concepts.

Spanish 2

1 year- 1 credit

This course is designed to further develop the language skills acquired in Spanish I. Scholars will review basic grammatical concepts and be required to demonstrate understanding of new intermediate level concepts. Students will study various aspects of Hispanic cultures around the world.