



**Connecticut  
River Academy**  
at Goodwin University

# Program of Studies 2022-2023

Principal: JT Foster  
Assistant Principal: Windy Petersen

9 Riverside Drive  
East Hartford, CT 06118

Dear Scholars,

You are fortunate to be selecting coursework from a challenging and varied curriculum that is offered by a talented faculty. We are a small high school with very high expectations for each of you. These expectations can be met through careful planning by scholars, families, and educators. As you begin the course selection process, please remember that freedom is really the right to become the best you can be, not to choose the path of least resistance. Good decision making and planning by you is the key to your future in a rapidly changing global society. In selecting your overall program and specific courses that you will take, it is vitally important that you consult parents, teachers, school counselors, and administrators. They can help you make decisions regarding your future plans and will guide you toward the appropriate classes.

The required courses at CTRA are designed to prepare all scholars to go on to post-secondary education. There are other courses that you can choose that will support your learning and push you to higher levels of learning. We encourage you to take this opportunity to select courses that will help you grow academically and prepare you for a successful future.

Once you have made your decisions, you should regard your course selection as your commitment for the coming year to bring you closer to your goals. Please spend the time necessary to make a commitment to your future success. Good luck and may next year at The Connecticut River Academy be an outstanding one for you.

Be Well,

JT Foster  
Principal

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# CONNECTICUT RIVER ACADEMY

## AT GOODWIN UNIVERSITY

Connecticut River Academy Vision, Values, and Magnet Standards  
Revised for 2018-19



### VISION:

Connecticut River Academy graduates will use their gifts to contribute to a just and sustainable world.

### CORE VALUES:

AWARENESS — DIVERSITY — ACTION

### MISSION:

The mission of the Connecticut River Academy is to:

- prepare its diverse student body for further educational opportunities, including the possible pursuit of careers in environmental or other sciences;
- break down racial, ethnic, economic, gender, and other social and academic barriers; and help its students to become well rounded, scientifically literate, and responsible 21<sup>st</sup> century citizens.

### MAGNET STANDARDS:

CTRA scholars will contribute to a just and sustainable world by:

#### Magnet Standard 1: demonstrating self- and global awareness.

- Using self-reflection to identify personal values, interests, strengths, and challenges
- Making plans and using strategies, resources, and innovative technologies and ideas to contribute to the well-being of self, others, and the environment
- Increasing global awareness to improve the efficacy and sustainability of decisions
- Using Habits of Mind and the design process to make choices that will positively affect our future

#### Magnet Standard 2: demonstrating a respect for the importance of diversity in the community of life.

- Communicating an understanding of how diversity affects our physical, social, economic, and cultural environments
- Seeking diverse, innovative ideas and relationships
- Making collaborative and informed decisions

#### Magnet Standard 3: demonstrating the impact of individual and social actions and decisions on the community of life.

- Communicating an understanding of how choices affect environments
- Acting individually and collectively to positively affect our environments and increase community ownership for learning
- Employing innovative manufacturing methods and technologies that improve the conditions of life

## GRADUATION REQUIREMENTS FOR THE CONNECTICUT RIVER ACADEMY

For graduation from Connecticut River Academy, scholars must earn a minimum of twenty-five credits, including:

| CT Graduation Requirements   | Subjects                             | Credits   | Mandatory Courses or Equivalents  |
|--|--------------------------------------|-----------|---|
| <b>Humanities</b><br>English, Social Studies, Language, Fine Arts<br>(9 credits) | English                              | 4         | 1 English credit each year for 4 years  |
|  | Social Studies                       | 3         | Civics (.5 credit) and US History (1 credit)  |
|  | Fine Arts                            | 1         | Art or Music  |
|  | Elective                             | 1         | 1 elective credit in Social Studies, English, World Language, or Fine Arts                                  |
| <b>STEM</b><br>Science, Technology, Engineering, Mathematics<br>(9 credits)      | Mathematics                          | 4         | -   |
|  | Science                              | 3         | 1 credit in a physical science, 1 credit in a life science, and 1 additional credit in a lab science course |
|  | Technology                           | 1         | -   |
|  | STEM Elective                        | 1         | -   |
| <b>World Language</b><br>(2 credits)   | Spanish                              | 2         | * Scholars may meet requirements for Seal of Bi-Literacy on diploma and transcript                          |
| <b>Self-Wellness</b><br>(2 credits)  | Physical Education & Health          | 1         | .5 credit in PE and .5 credit in Health   |
|  | Personal Wellness & Safety Education | 1         | Four Years of Advisory (.25 credits each year related to SSP)   |
| <b>Electives</b><br>(2 credits)  | -                                    | 2         | May be any course in any subject area that is not required for graduation                                   |
| <b>Mastery Based Diploma</b><br>(1 credit)                                       | Capstone Experience**                | 1         | Senior demonstration project and exhibition   |
| <b>25 credits</b>  |                                      | <b>25</b> |   |

\* Both native and non-native speakers of English may be eligible for the Seal of Bi-Literacy by meeting both of the following requirements: 1.) Scholars must complete all English requirements for graduation, 2.) Scholars must demonstrate proficiency in a language other than English at a level comparable to Intermediate Mid on the ACTFL proficiency guidelines as measured by an approved assessment in grade 10 or later.

\*\* The Capstone Experience is a graduation requirement for all CTRA Scholars.

The Capstone Experience is a culminating activity that provides a way for scholars to demonstrate the knowledge and skills they acquired throughout their years at CTRA. It engages scholars in a project/experience that focuses on an interest, career path or academic pursuit that synthesizes classroom study and real-world perspective. CTRA scholars are asked to demonstrate their ability to apply key knowledge and skills by planning, completing and presenting a culminating project linked to one or more area of personal interest and the individual's Scholar Success Plan.

The Capstone Experience may include an in-depth project, reflective portfolio, community service and/or internship. As part of the experience, the scholar will demonstrate research, communication and technology skills including additional relevant 21<sup>st</sup> century skills.

## PROMOTION REQUIREMENTS FOR THE CONNECTICUT RIVER ACADEMY

At the conclusion of each school year, scholars at the Connecticut River Academy are promoted to the next grade so long as there is still the potential for them to earn enough credits to graduate with their current graduation class. If the scholar cannot possibly graduate with their original class, they will repeat their current grade and move to an anchor/advisory group that corresponds with that grade.

The minimum number of credits needed for promotion to the next grade level are as follows:

**Grade 10:** 6 credits

**Grade 11:** 12 credits

**Grade 12:** 18 credits

**Graduation:** 25 credits

CTRA scholars in grades 9-11 must be enrolled in a minimum of 6 credit bearing classes per semester. Scholars in grade 12 must be enrolled in a minimum of 5 credit bearing classes per semester. Students lacking credits for promotion will be expected to repeat coursework or attend summer school to stay on track with their classmates for graduation.

## SUMMER SCHOOL

Scholars lacking credits for promotion may attend summer school to stay on track with their classmates for graduation. Summer School must be completed in the summer semester following the school year that the credit was lost and will be at the expense of the scholar's family, taken through their home district. If a scholar was truant from school and lost credit as a result, they are not eligible to make up this credit through Summer School.

## NON-DISCRIMINATORY STATEMENT

LEARN is an equal opportunity employer and does not discriminate on the basis of race, color, religious creed, age, marital status, sexual orientation, national origin, sex, ancestry, present or past history of mental disorder, mental disorder, mental retardation, pregnancy, or physical disability.

## PROGRAM CONSIDERATIONS

When a course lists a prerequisite, the scholar must have passed the prerequisite to take the course. A scholar may repeat a course to meet a grade requirement for a prerequisite but may not count the same course twice as credit toward that subject for graduation. Scholars must repeat, in the subsequent summer or the subsequent year, courses required for graduation which they fail. Two grades of English may only be taken concurrently upon the successful completion of English 9 and English 10.

All scholars in grades 9-11 must be scheduled for a minimum of six credit bearing classes per semester. Scholars in grade 12 must be enrolled in a minimum of five credit bearing classes per semester. Any course, in any department, may be considered an elective if it is not required for graduation. The elective credit requirement may vary depending on the number of credits the scholar has acquired in the other subject areas.

## 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 three CTRA 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.

### CLASS RANK AT CT RIVER ACADEMY

The Connecticut River Academy does not rank scholars according to their 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 COURSES 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 as determined by the school principal.

### AUTHORITY OF THE PRINCIPAL

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

### CTRA/GOODWIN UNIVERSITY CAREER PATHWAYS

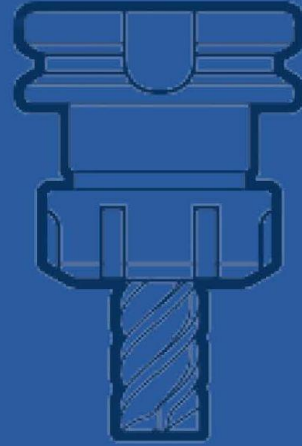
Connecticut River Academy has committed to offering students opportunities in career pathways.

- The Connecticut State Department of Education states that these “empower students to choose the Career and Technical Education (CTE) pathway that can lead to success in their academic and career endeavors.” These pathways connect scholars with the real world by ensuring a relevant link and creating a foundation for the knowledge earned in academic and pathways courses.
- Four of the five pathways are aligned in state and federally recognized clusters in areas of high demand (Business Management and Administration, Health Science, Information Technology, Manufacturing) The Liberal Arts pathway provides an opportunity for students to take college courses while they are still in high school and preparing them for future success in college and careers.

## ADVANCED MANUFACTURING

### ADVANCED MANUFACTURING

Earn up to 35 college credits including a 21 credit certification in CNC Machining through Connecticut River Academy's Advanced Manufacturing pathway. Learn on modern technology in our state of the art facility, setting yourself up for employment upon graduation or transition into further education at Goodwin University.



# 8.58%

OF ALL JOBS IN THE US ARE IN MANUFACTURING

| Orientation               | Introduction   | Skill Development  | Capstone and Advanced Skills  |
|---------------------------|--|--|---|
| Foundations of Technology | Exploring Manufacturing Technology<br>BMM100: Intro to Manufacturing | BMM140: Manufacturing Math<br>BMM222: Technical Drawing Internship | BMM175: CNC Machining<br>BMM224: Metrology and Calibration<br>BMM210: Lean Manufacturing<br>BMM240: CAM I<br>Apprenticeship |

| GRADE 9   |                   |                           |                   |
|-----------|-------------------|---------------------------|-------------------|
| English*  | ICC               | Environmental Science     | Spanish           |
|           | Civics            |                           |                   |
| Algebra I | Algebra I         | Physical Education        | Digital Portfolio |
|           | Health & Wellness | Foundations of Technology |                   |

| GRADE 10  |                                    |           |               |
|-----------|------------------------------------|-----------|---------------|
| English*  | World History*                     | Biology*  | Spanish       |
| Geometry* | Exploring Manufacturing Technology | Fine Arts | Study/Support |
|           | BMM100: Intro to Manufacturing     | ENG099    |               |

\* Indicates option for Accelerated

Advanced Placement Credit



Goodwin University Credit

Univ. of Bridgeport Credit

Gateway Course

| GRADE 11    |   |            |                                  |
|-------------|---|------------|----------------------------------|
| ENG101      | US History  | Chemistry* | Spanish                          |
| ENG102      |   |            |                                  |
| Algebra II* | College Study<br>(Including travel<br>time in S2) | Elective   | BMM140:<br>Manufacturing<br>Math |
|             |   | Internship | BMM222:<br>Technical Drawing     |

| GRADE 12               |                  |   |   |
|------------------------|------------------|---|---|
| English*               | PHYS201: Physics | College Study<br>(Including travel<br>time in S2) | Elective                                |
|                        |                  |   | Apprenticeship                          |
| MAT109:<br>Precalculus | Capstone         | BMM175: CNC<br>Machining                          | BMM224:<br>Metrology and<br>Calibration |
|                        |                  | BMM210: Lean<br>Manufacturing                     | BMM240: CAM I                           |





### Advanced Manufacturing Courses



- C or better required in all BMM courses in order to continue on the Advanced Manufacturing Pathway

| <b>Goodwin University Dual Enrolled:<br/>BMM 100 Introduction to Manufacturing</b>  |            |                   |
|---|------------|-------------------|
| 1 semester  | 0.5 credit | 3 college credits |
| <p>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.</p> |            |                   |
| <b>Prerequisite:</b> B or better in Foundations of Technology   |            |                   |

| <b>Goodwin University Dual Enrolled:<br/>BMM 140 Principles in Manufacturing Mathematics</b>  |            |                   |
|---|------------|-------------------|
| 1 semester  | 0.5 credit | 3 college credits |
| <p>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.</p> |            |                   |

| <b>Goodwin University Dual Enrolled:<br/>BMM 175 CNC Machining</b>  |            |                   |
|---|------------|-------------------|
| 1 semester  | 0.5 credit | 3 college credits |
| <p>This course focuses on the modern computer numeric control (CNC) operator. Through the use of interactive virtual simulators students learn the essentials of CNC machining. Participants will learn mill, lathe and grinder set-up and operation; tool identification, set-up, use and maintenance; statistical process control (SPC); and the skills operators need. Students will experience lecture, demonstration, and online simulation to prepare for NIMS certification as a CNC operator.</p> |            |                   |
| <b>Prerequisite:</b> BMM 100 Introduction to Manufacturing  |            |                   |

**Goodwin University Dual Enrolled:  
BMM 210 Lean Manufacturing Principles**

1 semester

0.5 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 Dual Enrolled:  
BMM 220 Materials and Processes in Manufacturing**

1 semester

0.5 credit

3 college credits

**Not offered in 2022-23**

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.

**Goodwin University Dual Enrolled:  
BMM 222 Technical Drawings and Specifications**

1 semester

0.5 credit

3 college credits

This course introduces the basic principles of engineering drawings. It addresses line types, orthographic projection, and isometric views that are used in industry standards. The six basic views of parts are designed to acquaint the student with a pictorial vision of a 3D part in a flat pattern view. Areas of study include: line types, orthographic projection, isometric views, fundamental tools of title block information, drawing standards, general and special notes such as quality assurance data, non-destructive testing, symbology, geometric dimensioning and tolerancing parameters, blueprint drawing abbreviations, linear units of measurement, rules of dimensioning, inclined surfaces, measurement of angles, holes and bolt hole patterns, drawings to scale,

blueprint revisions and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.

**Prerequisite:** BMM 100 Introduction to Manufacturing

**Goodwin University Dual Enrolled:  
BMM 224 Metrology and Calibration**

1 semester

0.5 credit

3 college credits

This course focuses on how to develop, implement, and maintain a calibration system. Evaluation of the calibration program is further deepened through continuous improvement efforts. Conformity to ISO 9001 requirements enhances the credibility of calibration systems to ensure reliability and traceability. This course looks at calibration processes such as calibration procedures and records, out of tolerance conditions, calibration schedules and intervals. Students will learn and practice techniques for setting size blocks to predetermined distances to measure product, develop continuous improvement programs, create training programs and audit the calibration system.

**Prerequisite:** BMM 100 Introduction to Manufacturing

**Goodwin University Dual Enrolled:  
BMM 240 CAM I**

1 semester

0.5 credit

3 college credits

**Not offered in 2022-23**

The purpose of this course is to review design and manufacturing software and instruct the student on feature-based modeling systems called SolidWorks and Mastercam. Students will learn how to create simple 2-D objects such as lines and arcs to create CAD solid models and add numerical dimensions and geometries. After CAD Models are created in SolidWorks, the files will be loaded into Computer-Aided Manufacturing (CAM) Mastercam for CNC programming.

**Exploring Manufacturing Technology**

1 semester

0.5 credit

Do you like to “make” things? Take a Do It Yourself (DIY) approach to creating everyday products using a variety of materials (wood, metal, plastic) to explore the world of manufacturing and what it takes to create products. Scholars explore advanced manufacturing and mechatronics with an emphasis in safety, systems and processes, and career paths.

**Prerequisite:** B or better in Foundations of Technology

**Foundations of Technology**

1 semester

0.5 credit

This course provides the foundation for students to understand and apply technological concepts and processes. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Technology content, resources, and laboratory activities encourage student applications. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society.

**Required for Grade 9**

### **Introduction to Manufacturing Technology**

1 semester

0.5 credit

#### **Not offered in 2022-2023**

Do you like to “make” things? Take a Do It Yourself (DIY) approach to creating everyday products using a variety of materials (wood, metal, plastic, textiles, electronics) to explore the world of manufacturing and what it takes to create products. Scholars explore manufacturing and advanced manufacturing with an emphasis in safety, systems and processes, and career paths.



## BUSINESS AND ENTREPRENEURSHIP

### BUSINESS

If you want to learn entrepreneurial skills to launch your own business or are looking to enter a field with potential for upward mobility, our Business Pathway is the fit for you. This pathway will offer you a solid foundation into the world of business, marketing, and finance with potential to continue at Goodwin University, University of Bridgeport or any other institution.



# 16%

**BUSINESS MAJORS MAKE 16% MORE THAN THE  
AVERAGE OF ALL OTHER MAJORS**

#### Introduction

Personal Finance  
Exploring Business

#### Skill Development

BUS101: Intro to  
Management  
  
ACCT101:  
Principles of  
Accounting I  
  
Internship

#### Capstone and Advanced Skills

BUS135: Customer  
Relations in a  
Multicultural World  
  
BUS215: Marketing  
  
BUS150: Small  
Business and  
Entrepreneurship  
  
Apprenticeship

| GRADE 9   |                   |                           |                   |
|-----------|-------------------|---------------------------|-------------------|
| English*  | ICC               | Environmental Science     | Spanish           |
|           | Civics            |                           |                   |
| Algebra I | Algebra I         | Physical Education        | Digital Portfolio |
|           | Health & Wellness | Foundations of Technology |                   |

| GRADE 10  |                    |           |               |
|-----------|--------------------|-----------|---------------|
| English*  | World History*     | Biology*  | Spanish       |
| Geometry* | Personal Finance   | Fine Arts | Study/Support |
|           | Exploring Business | ENG099    |               |

\*Indicates option for Accelerated

Advanced Placement Credit

Goodwin University Credit

Univ. of Bridgeport Credit

Gateway Course

| GRADE 11    |   |            |   |
|-------------|---|------------|---|
| ENG101      | US History  | Chemistry  | Spanish                                   |
| ENG102      |   |            |   |
| Algebra II* | College Study<br>(Including travel<br>time in S2) | Fine Arts  | BUS101: Intro<br>to Management            |
|             |   | Internship | ACCT101:<br>Principles of<br>Accounting I |

| GRADE 12               |                  |                |                                   |
|------------------------|------------------|----------------|-----------------------------------|
| English*               | PHYS201: Physics | Capstone       | BUS135:<br>Customer Relations     |
|                        |                  |                | BUS150: Small Bus.<br>and Entrep. |
| MAT109:<br>Precalculus | College Study II | Study/Support  | BUS215:<br>Marketing              |
|                        |                  | Apprenticeship | Apprenticeship                    |



## Business and Entrepreneurship Courses

| <b>Exploring Business</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>This course provides opportunities to learn and experience a variety of topics in the field of business. Students are exposed to various economies, their roles in our economy, entrepreneurship, marketing, managing financial and technological resources, and the use of social media. Course activities involve students in writing, investigating, problem-solving, demonstrating, and reporting. Instructional strategies may include the development of a business plan, product, computer/technology applications, real and/or simulated occupational experiences, or projects related to business ownership.</p> |            |  |
| <b>Prerequisite:</b> Grade of B or better in Personal Finance  |            |  |

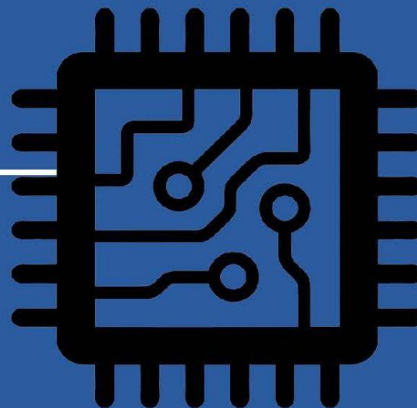
| <b>Personal Finance</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>Understanding and managing personal finances are key to one's future financial success. This course is based on Connecticut Personal Finance Competencies and presents essential knowledge and skills to make informed decisions about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision-making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.</p> |            |  |
|  |            |  |



## COMPUTER SCIENCE AND ROBOTICS

### COMPUTER SCIENCE

Computer science is one of the fastest growing and highest paying fields right now. In this pathway students will be exposed to robotics, cybersecurity, and web design in addition to learning Python programming language. Relevant coursework and unique IT work experience through internship will allow students to be well prepared to pursue a Computer Science degree or advanced certifications in programming after graduation.



# 67%

OF NEW JOBS IN STEM ARE IN COMPUTING

| Orientation               | Introduction  | Skill Development   | Capstone and Advanced Skills                                |
|---------------------------|---|---|---|
| Foundations of Technology | Introduction to Computer Science and Robotics<br>Web Design | AP Computer Science Principles<br>MAT109: PreCalculus<br>Internship | AP Computer Science A<br>MAT254: Calculus<br>Apprenticeship |

| GRADE 9   |                   |                       |                           |
|-----------|-------------------|-----------------------|---------------------------|
| English*  | ICC               | Environmental Science | Spanish                   |
|           | Civics            |                       |                           |
| Geometry* | Fine Arts         | Digital Portfolio     | Physical Education        |
|           | Health & Wellness |                       | Foundations of Technology |

| GRADE 10    |                                  |           |               |
|-------------|----------------------------------|-----------|---------------|
| English*    | World History*                   | Biology*  | Spanish       |
| Algebra II* | Intro to Comp. Sci. and Robotics | Fine Arts | Study/Support |
|             | Web Design                       | ENG099    |               |

\*Indicates option for Accelerated


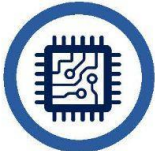
Advanced Placement Credit

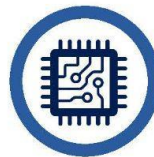
Goodwin University Credit

Univ. of Bridgeport Credit

Gateway Course

| GRADE 11               |                                   |   |                  |
|------------------------|-----------------------------------|---|------------------|
| ENG101                 | US History                        | Chemistry*  | Spanish          |
| ENG102                 |                                   |   |                  |
| MAT109:<br>Precalculus | AP Computer<br>Science Principles | College Study<br>(Including travel<br>time in S2) | Elective         |
|                        |                                   |   | Internship       |
| GRADE 12               |                                   |   |                  |
| English *              | PHYS201: Physics                  | Capstone  | College Study II |
| MAT254: Calculus       | AP Computer<br>Science A          | Goodwin<br>University Course                      | Elective         |
|                        |                                   | Apprenticeship                                    | Apprenticeship   |





## Computer Science and Robotics Courses

| <b>Advanced Computer Science and Robotics Principles</b>  |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <p><b>Not offered in 2022-23</b></p> <p>This advanced course in computer science, programming, and robotics challenges students to expand on their skills from the introductory course and apply them to solving complex STEM based problems. This half-year course is divided into halves, with equal time devoted to computer science and robotics. Students will learn the advanced concepts of writing code, building upon their experiences with Python. They will do hands-on work to design, write, and test computer programs in Python that solve problems or accomplish tasks. Students will learn to design a program, developing the algorithms it needs and writing the code to implement them. They will learn about testing program code and correcting errors and also document and explain how program code works.</p> <p>Students will also spend time building and programming VEX robots to perform various tasks and rely on sensor technology. Students will have the opportunity to learn advanced programming required to program autonomous mobile robots to achieve challenging tasks. They will also complete multiple challenges involving guided research, problem solving, working in teams. Finally, students will be able to reflect on robotics technology and how further it can impact our future in a positive way.</p> |            |  |
| <b>Prerequisite:</b> Introduction to Computer Science and Robotics Principles   |            |  |

| <b>AP Computer Science Principles</b>   |          |  |
|---|----------|--|
| 1 year  | 1 credit |  |
| <p>AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. It is a full-year, rigorous course that introduces students to the foundational concepts of computer science and explores the impact computing and technology have on our society. The course covers a broad range of foundational topics including: programming, algorithms, the Internet, big data, digital privacy and security, and the societal impacts of computing. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. The coding languages Scratch and Python are both used in this course. Scratch is a free block-based programming environment that is accessible enough for beginners, yet can support the development of advanced algorithms used in more complex games and applications. Python is a text-based language with easy to read and write syntax - perfect for beginning programmers.</p> |          |  |
| <b>Prerequisite:</b> B or better in Introduction to Computer Science and Robotics Principles or teacher recommendation  |          |  |



### **Computer Science and Robotics Principles**

1 semester

0.5 credit

This course is an introduction to computer science, programming, and robotics as it teaches science, technology, engineering, and mathematics (STEM). In this half-year course, students will learn the basic concepts of writing code by working with a variety of programs to create interactive games and simulations and control robotic devices. Students will learn how to use feedback from sensors, applied mathematics and measurement to program their robot to navigate in its environment. Students will have the opportunity to complete multiple challenges involving guided research, problem-solving, working in teams, computer-aided design (CAD) and design documentation by means of an Engineer's Notebook. Many of the activities facilitate the hands-on presentation of design practices used by engineers and technicians.

### **Foundations of Technology**

1 semester

0.5 credit

This course provides the foundation for students to understand and apply technological concepts and processes. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Technology content, resources, and laboratory activities encourage student applications. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society.

**Required for Grade 9**

### **Web Design**

1 semester

0.5 credit

In today's world, web pages are the most common medium for sharing ideas and information. Learning to design websites is an incredibly useful skill for any career path. This Web Design course is a project-based course that teaches students how to build their own web pages. Students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multi page websites. Students will learn the foundations of user interface design, rapid prototyping and user testing, and will work together to create professional, mobile responsive websites.

## HEALTH CAREERS

### HEALTHCARE

Whether you are interested in obtaining a CNA certification while still in high school or are seeking to gain the science background required for the field, this pathway will set you up for success. Rigorous coursework and clinical hours will prepare students for the competitive application process associated with advanced health careers.



# 16%

**PROJECTED GROWTH IN HEALTH CARE, MORE THAN  
ANY OTHER OCCUPATIONAL GROUP**

| Orientation       | Introduction     | Skill Development                 | Capstone and<br>Advanced Skills |
|-------------------|------------------|-----------------------------------|---------------------------------|
| Health & Wellness | Human Anatomy I  | HSC111: Medical<br>Law and Ethics | BIO101 or BIO120                |
|                   | Human Anatomy II | HSC105:<br>Terminology            | PHYS-201:<br>Physics            |
|                   | Biology          | Internship                        | CNA Course<br>Clinical Hours    |

| GRADE 9   |                   |                           |                   |
|-----------|-------------------|---------------------------|-------------------|
| English*  | ICC               | Environmental Science     | Spanish           |
|           | Civics            |                           |                   |
| Algebra I | Algebra I         | Physical Education        | Digital Portfolio |
|           | Health & Wellness | Foundations of Technology |                   |

| GRADE 10  |                |               |                  |
|-----------|----------------|---------------|------------------|
| English*  | World History* | Biology*      | Spanish          |
| Geometry* | Fine Arts      | Study/Support | Human Anatomy I  |
|           | ENG099         |               | Human Anatomy II |

\*Indicates option for Accelerated

Advanced Placement Credit

Goodwin University Credit

Univ. of Bridgeport Credit

Gateway Course

| GRADE 11    |   |            |                                   |
|-------------|---|------------|-----------------------------------|
| ENG101      | US History  | Chemistry* | Spanish                           |
| ENG102      |   |            |                                   |
| Algebra II* | College Study<br>(including travel<br>time in S2) | Fine Arts  | HSC111: Medical<br>Law and Ethics |
|             |   | Internship | HSC105: Medical<br>Terminology    |

| GRADE 12               |                  |                        |                |
|------------------------|------------------|------------------------|----------------|
| English*               | PHYS201: Physics | BIO101<br>or<br>BIO120 | CNA Course     |
| MAT109:<br>Precalculus | Capstone         | Clinical Hours         | Clinical Hours |



## Health Career Courses

| Human Anatomy I  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| Scholars will learn basic human anatomy and disorders for selected body systems (Nervous system, Cardiovascular system, and Respiratory system) in the context of potential medical careers and their educational requirements. Scholars will also be introduced to medical terminology with an emphasis on specific diseases and disorders. Scholars will investigate the environmental factors that impact health. |            |  |
|  |            |  |

| Human Anatomy II   |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| Human Anatomy II explores the inner workings of the human body and focuses on anatomical and medical terminology. This course is the perfect foundation for students wanting to expand their vocabularies and learn about the body and its levels of organization, as well as the cooperation required between those levels. Primary units of study for the semester: histology, blood, the cardiovascular system, the skeletal system, the digestive system, and the reproductive system. |            |  |
| <b>Prerequisite:</b> B or better in Human Anatomy I  |            |  |



## LIBERAL ARTS

### LIBERAL ARTS

Complete a full year of general education requirements in our Liberal Arts pathway. Scholars take Goodwin University courses with a cohort of peers, leading up to senior year where they have access to enroll in any of Goodwin University's course offerings. Taking classes in this manner offers the immersive experience of college learning. Many students have left this program to graduate with a bachelor's degree in just three years.



# \$21K

**MEDIAN SAVINGS FOR FULL TIME EARLY COLLEGE  
STUDENT AT CTRA**

| Orientation           | Introduction   | Skill Development  | Capstone and Advanced Skills   |
|-----------------------|--|--|--|
| Accelerated English I | Accelerated English II<br>ENG099: Reading/Writing Connection | ENG101: English Composition<br>ENG102: Composition & Literature<br>COM101: Public Speaking<br>HUM101: Human Thought and Humanities | Open enrollment in up to three Goodwin University courses per semester |

| GRADE 9   |                   |                           |                   |
|-----------|-------------------|---------------------------|-------------------|
| English*  | ICC               | Environmental Science     | Spanish           |
|           | Civics            |                           |                   |
| Algebra I | Algebra I         | Physical Education        | Digital Portfolio |
|           | Health & Wellness | Foundations of Technology |                   |

| GRADE 10  |                    |          |               |
|-----------|--------------------|----------|---------------|
| English*  | World History*     | Biology* | Spanish       |
| Geometry* | Fine Arts Elective | Elective | Study/Support |
|           | Fine Arts Elective | ENG099   |               |

\*Indicates option for Accelerated

Advanced Placement Credit

Goodwin University Credit

Univ. of Bridgeport Credit

Gateway Course

| GRADE 11    |               |            |                         |
|-------------|---------------|------------|-------------------------|
| ENG101      | US History    | Chemistry* | Spanish                 |
| ENG102      |               |            |                         |
| Algebra II* | College Study | Elective   | COM101: Public Speaking |
|             |               | Elective   | HUM101: Human Thought   |

| GRADE 12            |                           |                           |                           |
|---------------------|---------------------------|---------------------------|---------------------------|
| English*            | PHYS201: Physics          | Capstone                  | College Study             |
| MAT109: Precalculus | Goodwin University Course | Goodwin University Course | Goodwin University Course |
|                     | Goodwin University Course | Goodwin University Course | Goodwin University Course |





## Liberal Arts Courses

|   |            |                   |
|---|------------|-------------------|
| <b>Goodwin University Dual Enrolled:<br/>COM 101 Public Speaking</b>  |            |                   |
| 1 semester  | 0.5 credit | 3 college credits |
| <b>Not offered in 2022-2023</b><br>This course is designed to develop public speaking and listening skills so that students may become more effective communicators. Students will learn research techniques and how to organize, deliver, and adapt their message to an audience. They prepare and deliver several major speeches. Students also apply interviewing and group discussion techniques. |            |                   |
| <b>Prerequisite:</b> 85 or better in College Prep English   |            |                   |

|   |            |                   |
|---|------------|-------------------|
| <b>Goodwin University Dual Enrolled:<br/>ENG 101 English Composition</b>  |            |                   |
| 1 semester  | 0.5 credit | 3 college credits |
| Designed to develop clear and effective college-level writing, course has a strong emphasis on the composing process including topic selection, drafting, editing, and proofreading of final drafts. Focus is on organization of ideas, effective sentence and paragraph structure, grammar and its usage. Scholars will learn the techniques for writing major essays and research papers. |            |                   |
| <b>Prerequisite:</b> 85 or better in College Prep English   |            |                   |

|   |            |                   |
|---|------------|-------------------|
| <b>Goodwin University Dual Enrolled:<br/>ENG 102 Composition and Literature</b>   |            |                   |
| 1 semester  | 0.5 credit | 3 college credits |
| This half-year course provides additional composition skill building. Scholars are required to write extensively on topics related to various genres of serious literature and are expected to explain and support their ideas in writing. Focus is on learning how to read, interpret, and critically analyze literary selections. |            |                   |
| <b>Prerequisite:</b> 85 or better in ENG 101  |            |                   |

|  |            |                   |
|--|------------|-------------------|
| <b>Goodwin University Dual Enrolled:<br/>ENG 240 The American Short Story</b>  |            |                   |
| 1 semester   | 0.5 credit | 3 college credits |
| This course focuses on the American short story through an historical perspective. Students will evaluate short stories considering social themes that reflect cultural shifts, national movements, and the changing identity of the American nation. Students will also learn the elements of short story development, author strategies for building suspense and action, and literary devices that make this writing form profound. Finally, students will compose essays and discussion responses that draw on theoretical |            |                   |

models of close reading. Selected authors may include: Irving, Poe, Hawthorne, Ellison, Hughes, Jackson, Welty, Oates, and Diaz.

**Prerequisite:** B or better in English 102

**Goodwin University Dual Enrolled:  
HUM 100 Introduction to the Humanities**

1 semester

0.5 credit

3 college credits

This course provides a multi-disciplinary introduction to a global view of the arts and humanities. The emphasis of the course is on the interaction of art, poetry, literature, philosophy, music, and dance with the social issues of all cultures considered.

**Prerequisite:** 85 or better in ENG 101 and COM 101

## ART

### Art Foundations

1 semester

0.5 credit

This course will concentrate on developing artistic ability through the use of the elements of art and principles of design. Scholars will get experience with a wide variety of media such as, drawing, painting and sculpting from observation applied in two-dimensional and three-dimensional projects. Art History and critiques will be a part of each unit. This course is required as a prerequisite for drawing.

### Digital Photography

1 semester

0.5 credit

The basic elements of photography such as lighting, composition, and subject matter as well as basic camera functions will be taught. Scholars will also learn how to use Adobe Photoshop to digitally manipulate and enhance their photographs. The history of photography and how it has evolved as an art form will be explored as well as various well-known photographers. This class requires collaboration in the creation of photographs, presentations and critiques.

### Drawing

1 semester

0.5 credit

Scholars with an interest in developing strong drawing and rendering skills should take this course. Drawing from observation of three-dimensional forms will be taught as well as drawing from the imagination. Scholars will focus and expand on drawing skills and techniques introduced in Art Foundations. This course will help scholars increase their observational drawing skills, composition and technical manipulation of media.

**Prerequisite:** Art Foundations

### Recycle Art

1 semester

0.5 credit

This course focuses on exploration of ideas, materials, and a variety of art concepts that include the elements of art and the principles of design. Scholars use tools and materials to create innovative art by looking at trash in different and inventive ways. The Studio Habits of Mind are taught and used as the structure for grading of all projects. Scholars will also research and respond to upcycled art to further their understanding of trash as an art form. The three R's: reduce, reuse and recycle is emphasized as a purpose and message of creative expression.

**Prerequisite:** Art Foundations

## COLLEGE/CAREER

| <b>Capstone</b>  |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| In this full year course, scholars will create a body of work that examines an area of interest in depth through studies, reflections, and a culminating exhibition within the CTRA community. A scholar statement that defines the intent and new learning throughout the process will be included as part of the exhibition. Scholars will also write in a variety of modes including literature analysis, personal reflection, and research essays. |          |  |
| <b>Required for Grade 12</b>   |          |  |

| <b>Digital Portfolio</b>   |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| In this half-year course, scholars will create the digital portfolio that will house their work for their time at CTRA. The work demonstrates growth towards mastery of our 21 Century Skills measured through our school-wide Critical Thinking and Communication rubrics, as well as our Magnet Standards of Awareness, Diversity, and Action. The work will be presented at scholar-led conferences culminating in the senior Capstone Presentations. |            |  |
| <b>Required for Grade 9</b>  |            |  |

| <b>Inquiry Methods and Design</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>  |            |  |
| This course engages the scholars in interdisciplinary explanation of real-world topics and issues of individual interest. Using an inquiry framework, scholars will investigate using multiple sources and develop solutions to a complex problem or challenge. This course includes academic reading and writing and delivery of oral and visual presentations. |            |  |

| <b>SAT/ACT Prep</b>   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>   |            |  |
| This course is designed to teach the test-taking skills necessary to master college admission tests. Scholars will learn techniques, concepts, and question types that apply to the exam. Time will be spent during each class practicing test questions. |            |  |
| <b>Open to scholars in Grade 11</b>   |            |  |

| <b>Service in the Community</b>  |          |  |
|--|----------|--|
| 1 semester   | 0 credit |  |
| <p>Service in the Community is an opportunity for juniors and seniors to give back to the East Hartford Community. During a block of time each week, a scholar who applies and is accepted for this position will be responsible for working with the community on or off campus. The director of the institution in which a scholar volunteers as well as the Internship and Community Service Coordinator will evaluate scholars. Scholars will receive community service hours. Applications for community service are posted on <a href="http://ctriveracademy.org">ctriveracademy.org</a> and must be completed and returned to the Internship and Community Service Coordinator by the specified deadline.</p> |          |  |
| <b>Open to scholars in Grade 10, 11 and 12</b>   |          |  |

| <b>Internship</b>   |          |  |
|---|----------|--|
| 1 semester  | 0 credit |  |
| <p>The Work-Based Learning Internship Program will help students investigate career choices and participate in on-site career training, and help with successful transitions from school to careers and/or further education. The internship program depends on a partnership relationship between the student, the school, and the community. Student interns directly affect these partnerships, and expectations are set high so that relationships are enhanced. Students will have the opportunity to further investigate career choices they would like to pursue (job shadows may be utilized for the initial stages of career exploration). Students will develop critical skills and be workforce ready upon completion of formal education/training. Internships provide a “hands-on” or observatory experience that effectively teaches the use of these skills. The goal of this experience is to motivate and challenge students to excel in their studies and become responsible, reliable individuals.</p> |          |  |

## ENGLISH

### **ENG 9 Self and Global Awareness**

1 year

1 credit

The content of this course centers on the theme of Self and Global Awareness and enables scholars the ability to explore who they are as individuals and how they are part of a global society. Scholars will examine the various ways in which people navigate life, weighing dependence and independence, family and friends, duty and passion, self-possession and love as members of a global community. Through the exploration of culturally diverse literature, scholars will immerse themselves in the lifestyle, cultures, traditions and experiences of various ethnic groups. 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.

**Required for Grade 9**

### **ENG 10 Taking Action**

1 year

1 credit

The content of this course centers on the theme of Taking Action and encourages scholars to examine the ideas, experiences, and points of view presented in various multicultural texts in relation to their personal views. Through the exploration of culturally diverse literature, scholars will examine the various roles that literature plays in society and the nature of the knowledge acquired through literature in order to reflect upon how their own experiences influence the way they understand and respond to their global community. Scholars will celebrate, explore, and analyze the power of diverse views and how literature communicates meaning and experience. Literature will be examined on the basis that there is not one ultimate version of reality or truth but rather literature provides a window into the lives and minds of people from all walks of life. Scholars will learn to connect the experiences and ideas raised in literature to the real world and enact to promote a strong sense of global community engagement. Scholars will develop an understanding of civic action and grow as independent thinkers while completing all objectives of grade 10.

**Required for Grade 10**

| <b>ENG Literature and Contemporary Social Issues</b>  |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <b>Not offered in 2022-2023</b><br>Contemporary Social Issues introduces students to some of the social problems that face us in modern society. Throughout the class, students explore different sociological perspectives and address issues such as the changing demographics of the U.S., gender inequality, utopian and dystopian societies and the environment. Students are then asked to review, reflect and write about how each of these topics affects their lives either directly or indirectly. Pervasive social problems stimulate extensive sociological inquiry, and a class that covers such a topic prepares students for success in academics as well as later in life. This course offers a series of provocative questions and approaches to possible solutions that allow students to think critically about what the world of tomorrow may be like. Most importantly, students will leave the class at the end of the session with a fuller understanding of what it means to exist in the modern world. |            |  |
| <b>Open to Grades 11 and 12</b>   |            |  |

| <b>ENG The American Dream Literature</b> (formerly Eng 11)  |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| What does the American dream mean? During this half-year course, scholars will study important pieces of American literature while making connections to American history. Scholars will examine the American Dream, tracing how this dream of prosperity and freedom has evolved and been interpreted from different points of view. Scholars will sharpen their ability to think critically, communicate effectively, work collaboratively, and write creatively. Scholars will also analyze how the texts read connect to the magnet themes: awareness, diversity, and action. |            |  |
| <b>Open to Grades 11 and 12</b>   |            |  |

| <b>ENG The American Dream Deferred</b> (formerly Eng 11)  |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| During this half-year course, scholars will read literature that allows them to evaluate the American Dream through the lens of people from differing economic classes, genders, and races-all of whom have valuable interpretations. Scholars will sharpen their ability to think critically, communicate effectively, work collaboratively, and write creatively. Scholars will also analyze how the texts read connect to the magnet themes: awareness, diversity, and action. |            |  |
| <b>Open to Grades 11 and 12</b>   |            |  |

| <b>ENG Windows and Mirrors</b> (Formerly ENG 12 Senior English 1)   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <b>Not offered in 2022-2023</b><br>This course is designed to help scholars examine what it means to be human. Reading selections will focus on short stories and novels that represent the perspectives of multiple cultures and the diversity of human experience while helping scholars understand the common aspects of the human experience. Regular written reflections on the reading, periodic analytical essays, and frequent structured discussion opportunities will expand scholars' ability to think critically about what they read. Some choice will be incorporated in the selection of readings. |            |  |
| <b>Open to Grades 11 and 12</b>   |            |  |

| <b>English 1 Accelerated</b>   |            |  |
|--|------------|--|
| 1 year   | 1.0 credit |  |
| This course focuses on reading, writing, and language skills that are essential for students' future success in college coursework. Scholars read closely and analyze a range of complex literary and informational texts. They learn to evaluate textual evidence and incorporate it effectively in writing and speaking. Scholars will improve their writing skills as they learn to understand how writers and speakers use specific words and sentences to evoke the thoughts, emotions, and actions of readers and listeners. |            |  |
| <b>Prerequisite:</b> 3.0 or higher GPA, standardized testing, placement testing  |            |  |

| <b>Goodwin University Dual Enrolled:<br/>ENG 240 The American Short Story</b>   |            |                   |
|---|------------|-------------------|
| 1 semester  | 0.5 credit | 3 college credits |
| This course focuses on the American short story through an historical perspective. Students will evaluate short stories considering social themes that reflect cultural shifts, national movements, and the changing identity of the American nation. Students will also learn the elements of short story development, author strategies for building suspense and action, and literary devices that make this writing form profound. Finally, students will compose essays and discussion responses that draw on theoretical models of close reading. Selected authors may include: Irving, Poe, Hawthorne, Ellison, Hughes, Jackson, Welty, Oates, and Diaz. |            |                   |
| <b>Prerequisite:</b> B or better in English 102   |            |                   |



## English Electives

| <b>Creative Writing</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>This course requires scholars to demonstrate an ability to write in a creative manner in a variety of literary formats that include the short story, drama, and poetry. Group reading of works in progress is expected and revision based on peer critique is required. Scholars analyze the writing of established writers to demonstrate their understanding of the creative process and learn to discover their own creative voices. Scholars will create a portfolio of work that demonstrates their growth as writers over the course of the semester.</p> |            |  |

| <b>ENG College Prep English 1A (Formerly 088)</b>   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <p><b>Not offered 2022-2023</b></p> <p>This course is designed to enhance scholars' competence in reading, writing, and speaking in preparation for college-level assignments. Emphasis is on developing strategies for reading and writing. Students analyze a variety of readings through class discussions and written responses that focus on comprehension as well as sentence, paragraph, and essay structure and format. The goal of this course is to improve reading comprehension, vocabulary, and fundamental writing skills for scholars planning on taking English 099 at CTRA, followed by English 101 at Goodwin.</p> <p><b>Prerequisite:</b> Placement evaluation score, or teacher recommendation.</p> <p><b>Note:</b> Scholars must pass the final exam and earn a grade of 85 or better to take ENG 099.</p> |            |  |

| <b>ENG College Prep English 2 (Formerly 099)</b>  |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <p>This course for sophomores, juniors, and seniors develops critical, independent thinking. A focus on strengthening reading, writing, public speaking, and Habits of Mind is designed to prepare scholars for the rigors of college-level coursework. Scholars complete challenging written assignments to improve research, writing, and formatting; and strengthen public-speaking skills with a series of speeches culminating in a 5-minute presentation. Scholars who earn an 85 or higher can be recommended for Goodwin 101.</p> <p><b>Prerequisite:</b> 3.0 GPA or better or educator recommendation</p> <p><b>Note:</b> Scholars must earn a grade of 85 or better as one of the criteria to take ENG 101.</p> |            |  |

| <b>Film and Media Studies</b> |
|-------------------------------|
|-------------------------------|

|  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>This course gives scholars the skills to analyze and evaluate media in a much more sophisticated, informed, and perceptive way than they knew was possible. Film and Media Studies is based on scholars learning (1) film devices and (2) film genres. Scholars will become increasingly aware of the various ways that film is edited and composed; in turn, scholars are able to analyze and evaluate the reasons why directors and cinematographers manipulate film to affect a viewer's perception. Scholars learn to distinguish various film genres (including suspense, melodrama, and film noir) and are able to compare multiple films in terms of film editing, composition, and genre.</p> |            |  |

**Goodwin University Dual Enrolled:  
COM 101 Public Speaking**

|  |            |                   |
|--|------------|-------------------|
| 1 semester   | 0.5 credit | 3 college credits |
| <p><b>Not offered in 2022-2023</b></p> <p>This course is designed to develop public speaking and listening skills so that students may become more effective communicators. Students will learn research techniques and how to organize, deliver, and adapt their message to an audience. They prepare and deliver several major speeches. Students also apply interviewing and group discussion techniques.</p> |            |                   |
| <p><b>Prerequisite:</b> 85 or better in College Prep English</p>   |            |                   |

**Goodwin University Dual Enrolled:  
ENG 101 English Composition**

|  |            |                   |
|--|------------|-------------------|
| 1 semester   | 0.5 credit | 3 college credits |
| <p>Designed to develop clear and effective college-level writing, course has a strong emphasis on the composing process including topic selection, drafting, editing, and proofreading of final drafts. Focus is on organization of ideas, effective sentence and paragraph structure, grammar and its usage. Scholars will learn the techniques for writing major essays and research papers.</p> |            |                   |
| <p><b>Prerequisite:</b> 85 or better in College Prep English</p>   |            |                   |

**Goodwin University Dual Enrolled:  
ENG 102 Composition and Literature**

|  |            |                   |
|--|------------|-------------------|
| 1 semester   | 0.5 credit | 3 college credits |
| <p>This half-year course provides additional composition skill building. Scholars are required to write extensively on topics related to various genres of serious literature and are expected to explain and support their ideas in writing. Focus is on learning how to read, interpret, and critically analyze literary selections.</p> |            |                   |
| <p><b>Prerequisite:</b> 85 or better in ENG 101</p>  |            |                   |

**Goodwin University Dual Enrolled:  
HUM 100 Introduction to the Humanities**

|  |            |                   |
|--|------------|-------------------|
| 1 semester   | 0.5 credit | 3 college credits |
| This course provides a multi-disciplinary introduction to a global view of the arts and humanities. The emphasis of the course is on the interaction of art, poetry, literature, philosophy, music, and dance with the social issues of all cultures considered. |            |                   |
| <b>Prerequisite:</b> 85 or better in ENG 101 and COM 101   |            |                   |

## HEALTH & WELLNESS

### Health

#### Health and Wellness

1 semester

0.5 credit

Health and Wellness is a half-year course that will concentrate on defining wellness and discovering how positive lifestyle choices affect a variety of health-related topics that challenge young adults now and in the future. This course provides the foundational knowledge that will lead, support, and guide each scholar's path to living a healthy balanced lifestyle. Topics include: Wellness, Human Sexuality, HIV/Aids, Sexually Transmitted Diseases, Decision Making, Alcohol, Tobacco, Drugs, Mental and Emotional Health, Body Image, Physical Health, Nutrition, and Sleep.

#### Health and Wellness 2

1 semester

0.5 credit

Health and Wellness is a half-year course that will concentrate on defining wellness and discovering how positive lifestyle choices affect a variety of health-related topics that challenge young adults now and in the future. This course provides the foundational knowledge that will lead, support, and guide each scholar's path to living a healthy balanced lifestyle. Topics include: Wellness, Human Sexuality, HIV/Aids, Sexually Transmitted Diseases, Decision Making, Alcohol, Tobacco, Drugs, Mental and Emotional Health, Body Image, Physical Health, Nutrition, and Sleep.

**Open to Grades 11 and 12**

### Physical Education

#### Individual/Team Sports

1 semester

0.5 credit

This is a half-year course that centers on an understanding of health and physical activity concepts and skills that are necessary to lead an active healthy life. It is important that scholars learn the connection between positive physical activity choices and the result this will have on their health. The goal of this course is to prepare scholars to lead an active and healthy lifestyle by providing them with physical activity skills, game concepts, and cooperative teamwork opportunities. Scholars gain an understanding of "wellness" by forming connections between health and physical activity. This course will help scholars better understand the positive impact physical activity has on the body. Typical course activities may include: volleyball, team handball, and basketball.

| <b>Personal Training</b>  |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <p>This course is designed to give scholars the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Scholars will benefit from comprehensive weight training and cardio respiratory endurance activities. Scholars will learn the basic fundamentals of strength training, aerobic training, yoga, anatomy, exercise science, and overall fitness training and conditioning programming. Course includes both class work and activity sessions. Scholars will be empowered to practice goal setting, meet challenges, and develop positive behaviors in fitness, wellness, and movement activity for a lifetime.</p> |            |  |
|   |            |  |

## MATHEMATICS

### Algebra 1

1 year

1.5 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.

### Algebra 2

1 year

1 credit

This course is designed to help scholars expand on their prior knowledge of Algebra I concepts and apply them to the real world. Scholars will engage in an in-depth exploration of functions and their graphs. Major topics include: systems of equations and inequalities, introduction to function families, and solving and graphing quadratic, exponential, and logarithmic functions.

**Prerequisite:** Successful completion of Algebra 1 and Geometry

### Algebra 2 Accelerated

1 year

1 credit

This course is designed to help scholars expand on their prior knowledge of Algebra I concepts and apply them to the real world. Scholars in this course will explore algebra concepts in more depth in preparation for higher-level math courses such as pre-calculus and calculus. Major topics include: systems of equations and inequalities, linear optimization, exploration of function families, quadratic functions, radical functions, exponential functions, and logarithmic functions.

**Prerequisite:** B+ or better in Algebra 1 and Geometry or teacher recommendation

### Algebra 2 Everyday

1 year

2 credit

This course is designed to help scholars expand on their prior knowledge of Algebra I and geometric concepts and apply them to the real world. Scholars will engage in an in-depth exploration of functions and their graphs. Major topics include: introduction to function families, systems of equations and inequalities and solving and graphing quadratic, radical, and exponential functions.



| <b>AP Calculus BC</b>   |          |  |
|---|----------|--|
| 1 year  | 1 credit |  |
| This course explores the concepts, methods, and applications of differential and integral calculus, including topics such as parametric, polar, and vector functions, and series. You'll perform experiments and investigations and solve problems by applying your knowledge and skills. |          |  |
| <b>Prerequisite:</b> A in Calculus  |          |  |

| <b>Geometry</b>  |          |  |
|--|----------|--|
| 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. |          |  |
| <b>Prerequisite:</b> Successful completion of Algebra 1  |          |  |

| <b>Geometry Accelerated</b>   |          |  |
|---|----------|--|
| 1 year  | 1 credit |  |
| This accelerated course is similar to Geometry with added depth. The course moves at a faster pace and is intended for students who will likely pursue a mathematics or science-related career. The Accelerated Geometry course provides a rigorous geometric foundation while incorporating algebra when possible. This is intended for scholars who intend to take Pre/Calc and Calc. |          |  |
| <b>Prerequisite:</b> B+ or better in Algebra 1 or teacher recommendation  |          |  |

| <b>Goodwin University Dual Enrolled:<br/>Math 254 Calculus</b>  |            |                   |
|---|------------|-------------------|
| 1 semester  | 0.5 credit | 4 college credits |
| This is a Goodwin University/CTRA dual credit course for scholars who are interested in continuing their study of advanced mathematics. It is especially appropriate for those interested in any of the math-related fields including the sciences, engineering, pharmacy, business, economics, or technology. Topics included are limits, continuity, derivatives, and applications. |            |                   |
| <b>Prerequisite:</b> 80 or better in Pre-Calculus   |            |                   |

| <b>Mathematics of Finance 1</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>The goal of this course is to help scholars use mathematics effectively in their daily lives and to become financially responsible members of society. This course will give scholars the mathematical tools and resources needed to explore current and future financial decisions and evaluate the costs and benefits of decisions. It will prepare scholars to make wise financial decisions and establish financial well-being. Scholars will develop financial understanding and mathematical skills in such areas as money management and budgeting and will apply mathematical skills and formulas to solve real-life scenarios.</p> |            |  |
| <b>Open to Grades 11 and 12</b>  |            |  |

| <b>Mathematics of Finance 2</b>   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <p>This course is a continuation of Math in Finance 1 with the main goal of helping scholars understand the impact of individual choices on their long-term financial goals and future earnings potential. Scholars will explore the effective use of personal financial resources as a means to financial security. The course will use scholars' mathematical skills to explore a wide variety of financial concepts, such as financial institutions, investing options and benefits, the wise use of credit, securing housing, purchasing vehicles, insurance, income taxes and the consequences of mismanaged finances.</p> |            |  |
| <b>Open to Grades 11 and 12</b>   |            |  |

| <b>Pre-Calculus</b>  |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| <p>This is a course for scholars who want to expand on their advanced mathematics skills and acquire the foundation for calculus. Major topics include: linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions and their applications.</p> |          |  |
| <b>Prerequisite</b> B+ or better in Algebra 2 or teacher recommendation  |          |  |

| <b>Statistics and Probability</b>  |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| <p>This course is designed to introduce the basics of statistics and probability. Scholars will study probability rules, normal curves and distributions, standard deviation, linear regressions, correlations, and hypothesis testing. The course will also introduce methods to enable the scholar to interpret statistical data and evaluate their validity to justify conclusions made in everyday life.</p> |          |  |
| <b>Prerequisite:</b> Successful completion of Algebra 1 and Geometry   |          |  |

## MUSIC

### **Chorus**

1 year

1 credit

This is a participation-based vocal group. This course will cover advanced elements of choral performance as well as dance movement. Elements of style, posture and breath support, tone quality and production, diction, vocal blend and ear training; will be taught through appropriate director chosen literature and technique/reading materials. Scholars will perform in at least two annual concerts.

### **Introduction to Guitar**

1 semester

0.5 credit

This course is designed to provide basic skills for beginning guitar students. Students will learn:

- basic chords and strum patterns
- music reading and study skills
- technical exercises
- Music in a variety of styles; chords; scales; riffs and patterns
- To play a variety of solo and ensemble literature

### **Piano/Keyboard Lab**

1 semester

0.5 credit

The purpose of this class is to introduce and develop keyboard skills from beginner to intermediate. Each scholar may progress at their own speed, working individually and in groups. Included in this class will be the use of current electronic keyboards and electronic equipment in CTRA's new midi lab. This class requires no previous experience.

### **Music Technology I**

1 semester

0.5 credit

This course is designed to introduce the scholars to the world of digital audio and MIDI computer recording. By using the tools of digital recording, the scholars will be able to create their own musical compositions and arrangements to produce their own audio CD archives to use for listening, websites, video, or any other application where music is used. This course will explore the electronic keyboard, MIDI and audio recording, music theory, notation, arranging, transposition, composition, music production, sound tracks, performance and copyrights.

| <b>Music Technology II (formerly Introduction to Audio Engineering, Composing, and Arranging)</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>Students will learn to create your own original grooves by analyzing, writing, sequencing, and recording the rhythms and styles that have influenced Western contemporary music. Learn how to construct your own melodic, harmonic, and rhythmic language through the study of modern twentieth century compositional techniques. In this music composition course, you'll develop your unique, compositional voice to write music for visual media, concerts, recitals, or personal enjoyment.</p> <p>Students learn about techniques in recording and music development for movies, records, and radio. They also learn to mix music and edit digital music pieces. These programs stress hands-on experience with Pro Tools software and equipment used in the recording industry. Students study where electronic sounds originate and the way sound signals are processed. They will learn about different types of microphones and the techniques used to mic live sound.</p> |            |  |
| <b>Prerequisite:</b> B or better in Music Technology I or teacher recommendation   |            |  |

| <b>World Drumming</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p><b>Not offered in 2022-2023</b></p> <p>World Music Drumming will be a hands-on, performance-based class exploring the traditions and techniques of drumming from cultures around the world. No previous musical experience is necessary, as most of the material will be taught through the aural tradition, customary in other cultures. All instruments and materials will be provided.</p> |            |  |

## SCIENCE

| <b>Biology</b>  |          |  |
|---|----------|--|
| 1 year  | 1 credit |  |
| Life Science / Lab Science  |          |  |
| <p>This course will explore the study of life with a focus on the conditions and organisms within the CT River Academy and its watershed. 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.</p> |          |  |
| <b>Required for Grade 10</b>  |          |  |

| <b>Biology Accelerated</b>   |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| Life Science / Lab Science   |          |  |
| <p>The primary objective of the course is to provide students with a fundamental understanding of modern biology and scientific processes, building a foundation for success in the college level AP courses to follow. This course places a higher priority on developing critical thinking skills by examining real world problems. Topics are covered in depth and there is a focus on laboratory investigations. This course will prepare scholars to take biology at the college level.</p> |          |  |
| <b>Prerequisite:</b> 3.0 GPA or Science teacher recommendation   |          |  |

| <b>Chemistry</b>   |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| Physical Science / Lab Science   |          |  |
| <p>This college prep laboratory course is an engaging look at how the elements shape the world around us. We will study states and types of matter, atoms and elements, ionic and covalent bonding, chemical reactions and equations, and acids and bases. These concepts will be reinforced with laboratory investigations.</p> |          |  |
| <b>Open to Grades 11 and 12</b>  |          |  |
| <b>Prerequisite:</b> B or better in Algebra 1 or Chemistry teacher recommendation  |          |  |

| <b>Environmental Chemistry</b>   |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| Physical Science / Lab Science   |          |  |
| <p>This is a college preparatory lab science course. The course is a major step toward enhancing science literacy through a curriculum that emphasizes the impact of chemistry on the environment and society. Units will center on environmental chemistry and the related human and technological issues that confront us. The interdisciplinary nature and the everyday life contexts of this approach to teaching chemistry enhance science literacy and emphasize the impact of chemistry on society. The knowledge gained from the course will better prepare scholars to actively and sustainably shape their future society.</p> |          |  |
|  |          |  |

| <b>Environmental Science</b>   |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| Life Science / Lab Science   |          |  |
| <p>This course is designed to help scholars become more aware of the interactions between people and their environment and the resulting environmental challenges of today. The curriculum focuses on science concepts applied to real-life issues. The impact of environmental issues on the future lives of the scholars and local and global communities will be explored. The course will help scholars develop a respect for the necessity and sustainability of natural resources. The scholars will take advantage of local resources, such as the CT River, the school's Goodwin Navigator research vessel, and the CT Department of Environmental Protection.</p> |          |  |
| <b>Required for Grade 9</b>  |          |  |

| <b>Materials Science</b>  |          |  |
|---|----------|--|
| 1 year  | 1 credit |  |
| Physical Science / Lab Science  |          |  |
| <p>What goes into making a sneaker? What makes metal so strong? Why does clay become stronger when we heat it? This project-based lab-intensive course will help students understand the importance of materials in our daily lives and why we choose different materials for different purposes. Students will develop a deeper understanding of the connections between the science of materials and their ultimate use by constructing relevant products using manufacturing technologies.</p> |          |  |
| <b>Open to Grades 11, 12 or 10 with teacher recommendation</b>  |          |  |



| <b>Physics</b>   |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| Physical Science / Lab Science   |          |  |
| Physics is designed to give scholars an understanding and appreciation of the laws of physics and how they pertain to everyday life. The topics covered include motion, momentum and energy, thermodynamics, electricity and magnetism, and light and sound. There will be numerous labs and projects that can relate the physics concepts learned to models and real-life situations. |          |  |
| <b>Prerequisite:</b> 85 or better in Algebra 2 or teacher recommendation   |          |  |

### Science Electives

| <b>Agriculture, Aquaculture, and Animals 1</b>   |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| Life Science   |            |  |
| This course will engage scholars in using and maintaining animal and plant life (both terrestrial and aquatic), in the CTRA habitat center, an equine therapy facility, the greenhouse, and school gardens. Extensive hands-on activities with a high level of independent responsibilities will be part of this course. In each unit concepts needed for success in various careers will be taught, including the monitoring of plants and animals, handling and safety of animals and plants, and the use of computer-based monitoring technologies. |            |  |
| <b>Open to Grade 10,11 and 12</b>  |            |  |

| <b>Agriculture, Aquaculture, and Animals 2</b>   |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| Life Science   |            |  |
| <b>Not offered in 2022-2023</b>  |            |  |
| This course will build upon basic animal, agriculture, and aquaculture concepts completed in AAA 1 to immerse scholars in a student-designed leadership experience. The components of this course will include serving as a Lab Manager in the AAA 1 course, advancing to complete an equine program and utilizing the greenhouse for an independent study project that will benefit CTRA's habitat center. Emphasis will be placed on real-life training and the application of industry skills and technologies. |            |  |
| Open to 4 scholars per section in grades 11 or 12; prerequisite: B or higher in AAA and teacher recommendation.  |            |  |

| <b>Engineering</b> |
|--------------------|
|--------------------|

|   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| Physical Science  |            |  |
| <p>This course gives scholars an introduction to engineering through a series of assignments, hands-on design projects, and guest presenters. Scholars will learn about and use the design process to design, build, test, and redesign a variety of products. Scholars will explore the areas of civil, mechanical, chemical, biomedical, and computer/electrical engineering. They will also consider how engineering can improve the quality of our lives and of the environment in which we live.</p> |            |  |

|   |            |  |
|---|------------|--|
| <b>Food Systems</b>   |            |  |
| 1 semester  | 0.5 credit |  |
| Life Science  |            |  |
| <p><b>Not offered in 2022-2023</b></p> <p>Food systems are one of the hottest social science issues facing the world today. Scholars will explore genetically modified organisms (GMO's), sustainable farming and economics of food. In addition, the scholars will examine issues related to food quality and access. Scholars will engage in projects related to industrial food production and compare them to alternative approaches. They will experience hands-on activities that produce nutritious food using technologies such as aquaculture, hydroponics, greenhouses, and green-roof gardens. This classroom and laboratory course will take an interdisciplinary approach to examine how food is connected to health, justice and the environment.</p> |            |  |

|  |            |  |
|--|------------|--|
| <b>Forensics</b>   |            |  |
| 1 semester   | 0.5 credit |  |
| Physical Science / Lab Science   |            |  |
| <p><b>Not offered in 2022-2023</b></p> <p>Environmental forensics is designed to have scholars work in teams to solve crime scenarios using scientific knowledge and reasoning that are based on real events. This course will integrate all areas of science including biology, anatomy, chemistry, physics, and environmental science with an emphasis on complex reasoning and logic. In addition to applying forensic principles and skills to solve crimes against humans, scholars will also examine how these skills can be used to solve crimes against nature, such as poaching and environmental contamination. Scholars will incorporate the use of technology, communication skills, language arts, mathematics, and social studies.</p> |            |  |

|                             |            |  |
|-----------------------------|------------|--|
| <b>Human Body Systems 1</b> |            |  |
| 1 semester                  | 0.5 credit |  |
| Life Science                |            |  |

**Not offered in 2022-2023**

Scholars will learn basic human anatomy and disorders for selected body systems (Nervous system, Cardiovascular system, and Respiratory system) in the context of potential medical careers and their educational requirements. Scholars will also be introduced to medical terminology with an emphasis on specific diseases and disorders. Scholars will investigate the environmental factors that impact health. This course offers CPR certification in an effort to increase trained responders within multiple communities.

**Open to Grades 10, 11, and 12**

**Prerequisite:** Grade of C or higher in Biology

**Human Body Systems 2**

1 semester

0.5 credit

Life Science

**Not offered in 2022-2023**

Scholars will learn basic human anatomy and disorders for selected body systems (Skeletal system, Muscular system, and Reproductive system) in the context of potential medical careers and their educational requirements. Scholars will also be introduced to medical terminology with an emphasis on specific diseases and disorders. Scholars will also investigate the environmental factors that impact health. This course offers First Aid Certification in an effort to increase trained responders within multiple communities.

**Open to Grades 11 and 12**

**Prerequisite:** Grade of C or higher in Biology

**Introduction to Field Studies of the CT River**

1 semester

0.5 credit

Life Science

**Not offered in 2022-2023**

This course will introduce scholars to the basics of field studies. Basic scientific naming and identification of common plant, insect and bird species of the Connecticut River will be explored along with their impacts on the sustainability of the environment. Some fundamental procedures of data collection for use in citizen science-based data collection will also be studied. This course requires regular participation in outdoor activities involving sample collection and analysis of various species surrounding the CTRA campus.

**River Ecology**

1 semester

0.5 credit

Life Science

What lives in the river, and how are these plants and animals sustained? This outdoor learning course will explore the relationships among the microbes, plants, and animals in freshwater habitats. Students will gain an appreciation of rivers as dynamic and constantly evolving ecosystems as well as acquiring skills to conduct scientific observations and analyze data related to river ecosystems and management issues. This course will focus on field-based investigations by using our school's boat, canoes, and underwater technologies such as robotics to explore the CT River and its tributaries.

**Prerequisite:** Passing Grade in Environmental Science or Educator Recommendation

### **Wildlife Ecology**

1 semester

0.5 credit

Life Science

This course features lessons and laboratory activities that explore the diversity and ecology of wildlife. Topics include population and community ecology, wildlife biology, wildlife capture and monitoring, track identification, local wildlife identification and taxonomy, human conflicts, sustainable harvest, the effectiveness and purpose of national parks and national forest, invasive species and conservation biology. Scholars will define problems and create an action plan to make a difference in future wildlife preservation issues.

**Open to Grades 10, 11, and 12**

## SOCIAL STUDIES

### **AP World History: Modern**

|   |          |  |
|---|----------|--|
| 1 year  | 1 credit |  |
| <p>In AP World History: Modern, scholars investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.</p> <p><b>Prerequisite:</b> 3.0 or higher GPA or teacher recommendation, summer homework completion</p> |          |  |

### **Civics**

|  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p>Scholars at the Connecticut River Academy 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 CTRA 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.</p> <p><b>Required for Grade 9</b></p> |            |  |

### **Community Development in the Connecticut River Region**

|  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <p><b>Not offered in 2022-2023</b></p> <p>Scholars at the Connecticut River Academy 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 CTRA 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.</p> |            |  |

| <b>Modern World History</b>   |          |  |
|---|----------|--|
| 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. |          |  |

| <b>United States History</b>   |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| This course will use inquiry to study the multicultural American identity from the turn of the 20th Century to present day. Scholars will use their historical thinking and Habits of Mind to evaluate divergent viewpoints of events and people in local and national history. Scholars will apply college research and communication skills. Scholars will complete a comprehensive thesis paper as a major part of this course. |          |  |
| <b>Required for Grade 11</b>   |          |  |

### Social Studies Electives

| <b>Black and Latino Studies</b>   |            |  |
|---|------------|--|
| 1 year  | 1.0 credit |  |
| The African American/Black and Puerto Rican/Latino Course of Studies is a one credit, year-long elective in which students will consider the scope of African American/Black and Puerto Rican/Latino contributions to U.S. history, society, economy, and culture. The course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of African American/Black and Puerto Rican/Latino people in the U.S. Students will examine how historical movements, legislation, and wars affected the citizenship rights of these groups and how they, both separately and together, worked to build U.S. cultural and economic wealth and create more just societies in local, national, and international contexts. |            |  |
| <b>Open to Grade 12</b>   |            |  |

| <b>Deliberation</b>  |            |  |
|--|------------|--|
| 1 semester   | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>  |            |  |
| The act of deliberating requires individuals to think about and discuss issues and decisions carefully. Through this Deliberation course scholars will engage in classroom discussions about current issues impacting the United States. Scholars will research primary and secondary sources to gain a deeper understanding of contemporary matters and then apply their gained knowledge in a classroom deliberation on the topic. |            |  |



Many of these topics will come directly from the list of agenda items being debated in Congress. Scholars will leave this semester course with an understanding of civic values and intellectual skills necessary for citizens in a democracy.

### **Gender Studies**

1 semester

0.5 credit

We interact with men and women everyday but we typically do not discuss what these labels really mean. This course will delve deeply into how culture influences gender roles. We will study where and why discrimination against women still exists today while tackling stereotypes of today's men. Topics to be discussed include but are not limited to double standards between men and women, sexist language in the entertainment industry, and the roots of body image issues. We will research the history of individuals, events, and movements that seek to improve gender equality.

### **Goodwin University Dual Enrolled:**

#### **PSY 112 Introduction to Psychology at Goodwin University**

1 semester

0.5 credit

4 college credits

#### **Not offered in 2022-2023**

This course introduces the fundamental concepts of psychology, including physiological psychology, neuropsychological principles, sensation and perception, cognition, learning, child and adult development, social psychology, personality, and abnormal psychology. Scholars will focus on understanding human behavior and its application to everyday life.

**Prerequisite:** English 101

### **Identity, Culture, and Community**

1 semester

0.5 credit

The purpose of this course is to promote awareness of local and global differences, to identify shared values, to improve the understanding of one's own culture, and to encourage scholars to explore and honor differences. Scholars in this course will develop habits of mind to go beneath surface meaning and first impressions in order gain a deep understanding of each other and the social context that makes up our environment. Scholars will use the Circle of Courage to inquire about who they are and how they can break barriers, share power, and create a respectful community. The discussions and projects in this course will help students voice their opinions, develop trust, and listen to each other with empathy.

**Required for Grade 9**

### **Social Justice**

|   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>   |            |  |
| Scholars will identify injustice in society at the local, national, and international level. Through research, course readings, and project completion, scholars will understand, recognize, and describe general characteristics of injustice and how unjust systems, including environmental and social injustices, are self-perpetuating. Participating scholars will develop solutions to injustices in society and discover how to implement those solutions in a productive manner. In addition to research, scholars will volunteer for local organizations whose missions are to level the playing field and/or support community building. |            |  |
| <b>Open to Grades 10, 11, and 12</b>  |            |  |

|  |            |  |
|--|------------|--|
| <b>Sociology</b>   |            |  |
| 1 semester   | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>  |            |  |
| This course will examine the nature of human behavior as a product of the social world in which we live. Scholars will examine the “social” part of sociology, which gets beyond the individualistic and examines how individuals are interconnected. Students will use the scientific method to create and test hypotheses in order to describe how society functions as a whole. Students in this course will examine the values, groups, institutions, inequality and human interaction with the environment to develop their sociological imagination. |            |  |
| <b>Open to Grades 10, 11, and 12</b>   |            |  |

## SUPPORT

### College Study Group

1 semester

0 credit

This time block offers scholars the opportunity to engage with course content and materials on a deeper level. Scholars will work in a structured environment focused on organizing materials, meeting with professors, and accessing other college-level resources to support their success in Goodwin University courses.

### English Language Development

1 year

1 credit

A full year course for English Learners at the beginning or early intermediate level (1 or 2) on the LAS Links assessment. The curriculum covers five skill areas: listening, speaking, reading, writing and grammar, and cultural enrichment. Focus will be placed on improving scholars' oral and written language to support them in academic classes. This course is also appropriate for English Learners who are at level 3 on the LAS Links assessment and need to further develop their English skills to be successful in their academic classes.

### English Language Support

1 semester

0.5 credit

A course for English learners at the intermediate or proficient level on the LAS Links assessment who have not yet met mastery or need monitoring (per CTSDE for 2 years after meeting mastery) in core academic classes.

### Extended Learning

1 semester

0.5 credit

#### **Not offered in 2022-2023**

This course helps students in achieving academic success through the development and reinforcement of necessary academic skills. Scholars work to improve their learning effectiveness through daily academic and habits of mind goal setting. Scholars have the opportunity to receive assistance with their coursework assignments.

### Learning Center

|   |            |  |
|---|------------|--|
| 1 semester  | 0.5 credit |  |
| Learning Center is designed to provide scholars with specialized instruction to support academic needs as outlined in their Individualized Education Plans (IEPs). Scholars will work with special educators individually and in small groups to build academic, organizational, and study skills to meet their individual goals and reach proficiency in their academic classes. |            |  |
|   |            |  |

|  |            |  |
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| <b>Math Lab</b>  |            |  |
| 1 semester   | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>  |            |  |
| Scholars are identified and placed in this course based on standardized test scores and/or performance in previous math courses. The class is intended to prepare scholars for success by reinforcing concepts and skills needed in high school mathematics. Instruction will include pre-assessing, pre-teaching, re-teaching, and reinforcing math skills and concepts. Scholars will also develop and self-regulate personal study and organizational skills imperative for academic success. |            |  |
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| <b>Strategic Reading</b>  |            |  |
| 1 semester  | 0.5 credit |  |
| <b>Not offered in 2022-2023</b>   |            |  |
| Scholars are identified for this course through a review of academic history, standardized test performance, and teacher recommendations. This course uses whole language to develop college readiness in the areas of reading and writing. Emphasis will be placed on increasing vocabulary, developing comprehension skills, utilizing critical reading strategies, improving grammar, and applying outlining and note-taking skills while reading. |            |  |
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| <b>Study Hall</b>   |            |  |
| 1 semester  | 0.0 credit |  |
| Scholars without any D's or F's may elect to take a study hall. This time block offers scholars the opportunity to independently complete assignments and prepare for academic assessments. Scholars will be expected to work on materials that support success in their course work. |            |  |
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| <b>Writing Lab 1 and 2</b> |            |  |
| 1 semester                 | 0.5 credit |  |

**Not offered in 2022-2023**

Scholars are selected by a review of academic history, standardized test performance, and teacher recommendation. This course focuses on the foundational writing skills required for college readiness and success in ENG 088. Scholars will improve their writing ability by developing proficiency in essay structure, formatting, and style; as well as grammar, vocabulary, annotation, and reading stamina.

## 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.

**Prerequisite:** 70 or better in Spanish 1

### Spanish 3

1 year

1 credit

This course continues to develop language functions learned and emphasizes fluency in speaking, reading, writing and listening at an intermediate high level. Throughout the year, scholars will continue to acquire intermediate concepts. Vocabulary and grammar appropriate to this level of study is presented in Spanish and developed through the use of authentic listening exercises on a variety of cultural themes.

**Prerequisite:** 70 or better in Spanish 2

### Spanish 4

1 year

1 credit

This course is a continuation of Spanish 3, and is designed for language scholars who are interested in going beyond the mere college requirement. Scholars who have demonstrated excellence in previous Spanish courses should highly consider taking this course. The course aims at developing the ability of the scholar to function effectively and to discuss a variety of topics in Spanish. Habits of Mind, like persistence and taking responsible risks, are extremely important for this course.

**Prerequisite:** 80 or better in Spanish 3



| Spanish for Native Speakers  |          |  |
|--|----------|--|
| 1 year   | 1 credit |  |
| <p>This course is designed for scholars who consider themselves bilingual. Because speaking is a strength for bilingual scholars, this course has a heavy focus on reading and writing strategies. Themes of each unit include, but are not limited to, a variety of Spanish-speaking countries, college/career-readiness and environmental studies. Bilingual scholars are eligible to take this course anytime during their career at CTRA and are able to enroll into the course more than once for credit.</p> |          |  |
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