

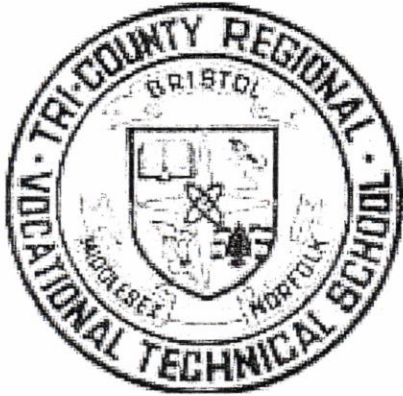
## **Mission Statement**

Through a rigorous, comprehensive program of vocational/technical and academic preparation, as well as a progressive system of individual support and guidance, we strive to maximize the potential of each student for successful transition:

- to full time employment
- to the pursuit of higher education
- to a personal commitment of life-long learning
- to full participation as creative, responsible, productive American citizens

# Tri-County

Regional Vocational Technical High School



2011 - 2012  
Academic Course  
Descriptions

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Barbara A. Renzoni, *Superintendent-Director*  
Jean Mallon, *Interim Principal*

## Promotion/Graduation Requirements

Beginning with the Class of 2012, a minimum of 152 credits will be necessary for graduation. Students must earn 37.5 credits per year for promotion/graduation. A student must pass his/her shop and English, Math, Science and Social Studies for 4 years, 2 of which must be U.S. History, Physical Education for 4 years and Related Instruction for 2 years. Students must successfully complete all aspects of the Senior Project including the research paper, product, and presentation.

From Grade	To Grade	Credits
9	10	37.5
10	11	75
11	12	113.5
<b>For Graduation</b>		152

## Enrollment in Courses

Courses selected will be assigned on a space available basis.

## Special Education Services

Special Education services are offered in general education classes through a consultation/support model.

*~ Grade 9 courses begin with "1", grade 10 with "3", grade 11 with "5" & grade 12 with "7".*

## Academic Course Descriptions

- Business Technology
- English
- Health and Physical Education
- Mathematics
- MCAS Tutoring
- Music Appreciation
- Science
- Social Studies
- Spanish

## **Business Technology**

**BU 346, 546, 746**

### **Microsoft Excel/ Microsoft Powerpoint CP**

**2.5 credits**

Microsoft Excel will emphasize the use of constructing spreadsheets focusing on the knowledge necessary to maintain and analyze financial records for business use. Powerpoint will emphasize the techniques necessary to create a slide show presentation that includes background designs, animation and sound effects. Students will be encouraged to use this knowledge to create a presentation to be used as part of their Senior Project.

**BU 189**

### **Technology Literacy**

**1.25 credits**

Technology Literacy topics include Microsoft Word, Excel, Powerpoint and Publisher, as well as computer and Internet ethics. Students must take both BU189 and PE169.

**BU 147, 347**

### **Computer Aided Design CP**

**2.5 credits**

This course will focus on an introduction to Computer Aided Design (CAD) software. Emphasizing computer aided design techniques and principles to create 2D drawings and 3D models. Topics include creating, moving, and editing basic geometric shapes, drawing set up, drawing aids, layer usage, basic annotation and dimensioning, and 3D part and assembly modeling concepts.

## **English**

**EN 112**

### **English 9 CP**

**5 credits**

This college preparatory course emphasizes the elements of fiction with an introduction to Shakespearean drama and poetry. Representative examples of the literature include *Romeo and Juliet*, *Of Mice and Men*, *The Odyssey* and selected short stories and poems. The year begins with a focus on basic grammar skills, and moves through identifying specific sentence types by structure and purpose and developing sound paragraph structure, with progression to the five-paragraph essay and the documented research essay. Elements of an oral presentation are also covered in this course. Outside reading and written homework is assigned on a regular basis.

**EN 110**

### **English 9 Honors**

**5 credits**

This honors level program is for students who have above average aptitude and interest in reading and writing. Representative examples of the literature include *Romeo and Juliet*, *Dr. Jekyll and Mr. Hyde*, *The Odyssey* and selected short stories and poems. The honors course delves deeper into topics covered in EN 112 and requires a more advanced level of usage. The honors program poses the additional expectation that students apply specific elements of style such as tense consistency, elevated diction and advanced punctuation usage to their writing. Extensive outside reading and written homework is assigned on a regular basis.

**EN 312**

### **English 10 CP**

**5 credits**

This college preparatory course begins with a review of elements of plot and then moves to abstract literary elements such as figurative language, foreshadowing, diction, tone and character development. In both fiction and poetry, students identify and analyze theme. Poetry and

nonfiction writing are also covered in this course. Representative examples of the literature include *Lord of the Flies*, *Antigone*, *Catcher in the Rye*, *A Separate Peace*, *I Know Why the Caged Bird Sings* and selected short stories and poems. The course begins with a review of basic sentence structure and punctuation and moves toward presenting complex ideas in such topical essays as character analyses and causation essays. In this course, the emphasis goes beyond the initial writing and focuses on the revision and editing steps. The year ends with the research, writing, revision and publication of a full documented research paper and the preparation and delivery of a shop process demonstration. Outside reading and written homework is assigned on a regular basis.

### **EN 310**

#### **English 10 Honors**

**5 credits**

The honors level course is for students who have above average achievement and interest in reading and writing. While many of the topics covered and skills required are the same as those covered in En 312, the honors course delves deeper into these topics and requires a more advanced level of usage. The honors program poses the additional expectation that students apply specific elements of style such as parallel structure, elevated diction and advanced punctuation usage to their writing. Students in this class read two dramas. Representative examples of the literature include *Lord of the Flies*, *Julius Caesar*, *Antigone*, *Catcher in the Rye*, *A Separate Peace* and selected short stories and poems. Extensive outside reading and written homework is assigned on a regular basis.

### **EN 512**

#### **English 11 CP**

**5 credits**

This college preparatory course offers an overview of American Literature with an exploration of regional differences in dialect and tone. The course begins with students researching, developing, writing and revising their senior project papers in conjunction with their course work in their vocational technical program. A passing grade is required on this paper in order for students to progress to senior English. This course covers the principles of argumentation and persuasive writing and speaking. Representative examples of the literature include *The Crucible*, *The Great Gatsby*, *The Things They Carried*, *The Adventures of Huckleberry Finn* and selected short stories and poems with the purpose of connecting literature to history and culture. Informational material is analyzed for content as well as style and purpose. In addition to the senior project paper, which is written primarily on the student's own time, outside reading and written homework is assigned on a regular basis.

### **EN 510**

#### **English 11 Honors**

**5 credits**

This honors level course emphasizes developing personal writing style and voice by examining various writers' purpose and themes. While many of the topics covered and skills required are the same as those covered in En 312, the honors course delves deeper into these topics and requires a more advanced level of application. The full length pieces of literature are the same as those covered in EN 512 with additional informational pieces presented. This program contains highly challenging material for students who have scholarly interest and who have the time and motivation to accept responsibility for extensive outside preparation. This course prepares students for the rigor and challenges of Humanities and Advanced Placement Literature and Composition offered in the senior year. In addition to the senior project paper, which is written primarily on the student's own time, outside reading and written homework is assigned on a regular basis.

## EN 712

### English 12 CP

5 credits

This college preparatory course covers advanced standards of paragraph, sentence and composition structure with an emphasis on “real world” applications such as the college essay, resume, employment application, and business letter. Formal and informal oral presentations are also emphasized as well as the incorporation of multi-media into such presentations.

Representative world literature includes “The Allegory of the Cave,” *Enemy of the People* and the *Tragedy of Macbeth* and selected short stories and poems. Outside reading and written homework is assigned on a regular basis.

## EN714

### Humanities Honors

5 credits

This honors course is offered in conjunction with SS 704, the Social Studies component of the program. Students are introduced to literary and historical aspects of Western Civilization through extended readings, lecture, individualized and class projects. Beginning with Ancient Greece, students read representative literature while at the same time studying major historical events in Western history. This course also touches upon art history and music of various time periods. This honors program contains highly challenging material for students who have scholarly interest and who independent Internet research.

## EN 708

### Advanced Placement Literature and Composition

5 credits

This advanced course offers interpretation and evaluation of representative examples of poetry, drama, fiction and expository prose from various cultures and historical periods. Pieces are examined for structure, style and theme, as well as imagery and symbolism while being analyzed and evaluated on literary and social merit. The class requires students to react and respond to the literary works by means of reflections, argumentation, and expository prose pieces that demonstrate not only advanced skills in the application of Standard English conventions, but also elements of stylistic maturity and creativity. Representative examples of the literature include *Heart of Darkness*, *Things Fall Apart*, *Hamlet*, and *Oedipus the King*. Students will be required to take the AP® Literature and Composition exam in the spring. Extensive outside reading and independent preparation is required. **Prerequisite: final average of B or better in EN 510 and/or teacher recommendation.**

## Health & Physical Education

### PE 169

#### Physical Education/Health

1.25 credits

Physical education, as an instructional program, provides a learning environment to develop and improve a student’s physical, emotional, and social abilities. Participation is the primary requirement. Performance evaluation is determined by quantity and quality of participation. This element accounts for 25% of the grade Time: one marking term.

An additional 25% of the grade derives from health education. Topics include drugs, alcohol, sexually transmitted diseases and smoking cessation. Performance indicators are classroom reading, writing, and discussion. Time: one marking term. Students must take both PE169 and BU189.

## **PE 360**

### **Physical Education/Health**

**2.5 credits**

Physical Education, as an instructional program, provides a learning environment to develop and improve a student's physical, emotional, and social abilities, leading to good health, well-being and fitness. Participation is the primary requirement of the Physical Education Program. Evaluation of performance is determined by the quantity and quality of participation.

Fifty percent of curriculum time will be spent in health education. Topics to be covered include drugs and alcohol, sexually transmitted diseases and smoking cessation. Parents may request waivers from this component. Alternate assignments will be provided.

## **PE 166, 566, 766**

### **Total Body Conditioning**

**2.5 credits**

This class emphasizes individual fitness through a wide variety of aerobic activities and training. A basic conditioning program, which alternates aerobic dance, strength training, and aerobic activities, will be utilized. Information on a variety of health-related fitness topics will also be presented.

## **PE 167, 567, 767**

### **Yoga and Self-Defense**

**2.5 credits**

This course will focus on the mind-body connection by teaching students both yoga and martial arts exercises that will help improve both physical and mental fitness. Students will learn how to concentrate and focus better as well as improve flexibility and core strength.

## **Mathematics**

### **MA 120**

#### **Algebra I Honors**

**5 credits**

In addition to the contents of the CP course, the Honors program will include a deeper exploration of the standards that focuses on analytical and abstract reasoning. The class includes a variety of applications to other fields, challenging problems to develop strong problem solving skills, and an emphasis on connecting visual, symbolic, and verbal representations of algebra concepts.

### **MA 121**

#### **Algebra I CP**

**5 credits**

This course is designed for students whose basic mathematical skills in whole numbers, fractions, decimals and percents are above average. The objective of this class is to learn the language, concepts, and techniques of algebra and to develop critical thinking and logical reasoning skills. We will study the real number system and solve problems using equations, polynomial operations, factoring, rational expressions, inequalities, systems of equations, rational and irrational numbers, and the quadratic formula.

### **MA 123, 520**

#### **Algebra II/Trigonometry Honors**

**5 credits**

This course is designed for students who have demonstrated significant mathematical skills in the completion of an Algebra I course. The course of study includes basic concepts of real numbers, inequalities, linear and quadratic functions, factoring with applications, rational expressions, irrational and complex numbers, exponential and logarithmic functions, trigonometry with applications, and matrices.

**MA 320****Geometry Honors****5 credits**

This course is designed for any student who has successfully completed Algebra I Honors. The course covers all topics as Geometry CP, but will go into greater depth, especially in the areas of inductive and deductive reasoning, interpreting and writing proofs (both direct and indirect), congruency, similarity, right triangle trigonometry and the application of skills to practical problem solving.

**MA 324, 724****Geometry CP****5 credits**

This course is designed for students who have successfully completed Algebra I. Topics to be covered are: introduction to constructions, basic postulates of geometry, writing proofs, the Pythagorean Theorem, two and three dimensional shapes, parallel lines, coordinate geometry area and volume circles, and the application of skills to practical problem solving.

**MA 522****Algebra II CP****5 credits**

This course is designed to prepare students for college level mathematics when completed with Algebra II / trigonometry taken during the senior year. This class will reinforce the skills taught in Algebra I and add advanced Algebraic reasoning skills necessary for the post graduate.

**MA 720****Algebra II/Trigonometry CP****5 credits**

This course is designed for any student who has successfully completed Algebra II. Its contents include the study of quadratic functions, polynomial functions and logarithms, and sequences and matrices. Trigonometry will be introduced with its identities and formulas as well as circular functions and their inverses.

**MA 585, 725****Pre-Calculus Honors****5 credits**

This course is intended for juniors and seniors who have completed Algebra II/Trigonometry. Topics covered will be linear and quadratic functions, polynomial functions, inequalities, operations with functions, exponents and logarithms, trigonometric equations, triangle trigonometry, trigonometry identities and matrices. A graphing calculator (TI-83+) will be utilized throughout the course. **Prerequisite: Honors Algebra II / Trigonometry**

**MA 726****Introduction to Calculus Honors****5 credits**

This course is an accelerated course of the Pre-Calculus program, along with an introduction to Calculus. Topics covered will include all of the pre-Calculus course including limits, derivatives as limits, the product and quotient rules, the chain rule, derivatives of trigonometric functions, implicit differentiation, and integration. Application of calculus in relation to business, social sciences, medicine, physics and biology will be incorporated in the program. A graphic calculator (TI-83+) will be utilized throughout the course. **Prerequisite: Instructor approval**



## MA 707

### Statistics CP

5 credits

Topics to be covered include: random numbers, simulations, frequency tables, summary statistics, graphs and charts, linear regression, correlation, binomial distribution, normal distribution z-values and t-values and hypothesis testing. Students will be engaged in interesting real-world activities and problem solving. The use of technology, specifically Excel, and graphing calculators will be utilized. **Prerequisite: Completion of Algebra II.**

## MA 719

### Advanced Placement Calculus AB

5 credits

Calculus AB is a course in a single-variable calculus that includes techniques of finding derivatives and applications of the derivative, techniques and applications of the definite integral, and the Fundamental Theorem of Calculus. Discussions of limits, continuity, extrema, Riemann sums, differential equations and slope fields as examples of mathematical modeling will be included in the class presentations. **Prerequisites: Successful completion of Pre-Calculus and completion of a summer calculus assignment. Students will participate in one or both summer calculus sessions. Students will be expected to take the AP Calculus exam in the spring.**

## MA 728

### Algebra IIB CP

5 credits

This course presents material from the second part of the Algebra II frameworks. Course topics include: Exponents & Rational Expressions, Radicals & Irrational and Complex Numbers. Prerequisite: Algebra IIA.

## Science

### SCI 136

#### Biology I – CP

2.5 credits

This course is the first of a two year sequence in Biology. Biology focuses on the study of life by examining five fundamental concepts: cellular biology, plant and animal physiology, ecology, evolution and genetics. This course will focus on biochemistry, cellular biology and genetics. A lab based program, scientific process and laboratory skills are emphasized. Writing assignments, discussions and outside reading will be used to relate the course content to current biological issues.

### SCI 135

#### Biology I - Honors

2.5 credits

In addition to an extended depth of coverage, Honors Biology will place a greater emphasis on biochemical relationships and scientific vocabulary. Formal lab reports and additional outside reading will be assigned. **Prerequisite: Currently taking Honors Algebra I or Algebra II/Trigonometry.**

### SCI 333

#### Biology II – CP

2.5 credits

This course is the second of a two year sequence in Biology. Biology focuses on the study of life by examining five fundamental concepts: cellular biology, plant and animal physiology, ecology, evolution and genetics. This course will focus on evolution, ecology and plant and animal physiology. A lab based program, scientific process and laboratory skills are emphasized.

Writing assignments, discussions and outside reading will be used to relate the course content to current biological issues.

### **SCI 334**

#### **Biology II - Honors**

**2.5 credits**

In addition to an extended depth of coverage, Honors Biology will place a greater emphasis on biochemical relationships and scientific vocabulary. Formal lab reports and additional outside reading will be assigned.

### **SCI 531**

#### **Chemistry – CP**

**2.5 credits**

CP Chemistry is intended to provide the theory and techniques necessary for entry into a post-secondary chemistry program. Using a laboratory approach to learning, this course will utilize activities integrating language arts, mathematics, history and technology with fundamental scientific principles. Emphasis will be placed on deductive reasoning, cooperative learning, laboratory techniques and safety, scientific methodology and technology applications.

### **SCI 530**

#### **Chemistry - Honors**

**5 credits**

In addition to an extended depth of coverage, Honors Chemistry will place greater emphasis on quantitative chemistry and scientific vocabulary. Formal lab reports and additional outside reading will be assigned. **Note: Students who take this course do not take an elective.**

### **SCI 735**

#### **Physics - Honors**

**5 credits**

Honors physics is intended to provide the theory and techniques necessary for entry into a post-secondary physics program. Through rigorous mathematical examination, students will explore the basic laws of physics in the areas of mechanics, dynamics, thermodynamics and optics. Using a laboratory approach to learning, this course will utilize activities integrating language arts, mathematics, history and technology with fundamental scientific principles. Emphasis will be placed on deductive reasoning, cooperative learning, laboratory techniques and safety, scientific methodology and technology applications.

**Note: Students who take this course do not take an elective.**

**Note: A background in algebra and trigonometry is recommended.**

### **SCI 737**

#### **Anatomy and Physiology - Honors**

**2.5 credits**

Human Anatomy and Physiology is designed for students who plan to pursue post-secondary education where knowledge of human anatomy and physiology will benefit their studies. Using a laboratory-based approach to learning, including microscopy, histology, a cat dissection and practical exams, this course will provide activities integrating language arts, history and technology with fundamental scientific principles. Emphasis will be placed on deductive reasoning, cooperative learning, laboratory techniques and safety, scientific methodology and technology applications.

**Prerequisite: Medical Career students must have approval of instructor and at least a B average in Biology and Chemistry; non-Medical Careers students must have an A in Biology and a B or better in Chemistry.**

## SCI 739

### Environmental Science

2.5 credits

Environmental Science examines scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems and to examine alternative solutions for resolving and/or preventing them. The course also examines fundamental thermodynamic concepts such as energy and power and explores the comparative environmental costs and benefits, including potential long term consequences, of producing energy from various sources such as fossil fuels, nuclear reactors, wood burning, solar panels, wind turbines, etc. A laboratory component allows application of the scientific method to investigate natural flows of chemicals/water/energy in Earth's subsystems, and how humans impact these natural flows and subsystems. An emphasis is placed on students using critical thinking and analytical skills to make a positive impact on the environment.

## SCI 731

### Microbiology - CP

2.5 credits

Microbiology is a lab based science course that explores the various types of microscopic organisms, including viruses, bacteria, fungi, protozoa and Helminths. Lab experiments will allow discovery of various microbial principles, such as conditions that promote growth, reproductions methods, identification procedures, epidemiology, immunology and pathogenic cycles of these organisms and how to protect against them. Lecture, discussions and projects will be the basis of exploring the course content and the economic value of the various microorganisms. Emphasis will be placed on the effect these organisms have at home, in vocational shops and in the workplace. Course topics will apply to several shop areas, including but not limited to the Culinary Arts, Cosmetology, Medical Careers, Dental Careers and Early Childhood Careers. The course emphasizes problem solving, lab techniques and discovery through the collection and interpretation of data and the use of the scientific method and technology. This course will have very limited additional outside reading.

## SCI 730

### Microbiology - Honors

2.5 credits

This course covers the same content as Microbiology CP, but has an additional emphasis on the preparation of students entering the health careers. Furthermore, utilization of technology and exploration of the Centers for Disease Control's website with an emphasis on outside reading and written assignments and intense testing will be given to those students taking this course. A final microbiology topic paper and project are required.

**Prerequisite: Must have a B or better in current science class and at least a B average in Biology II. Honors Chemistry is recommended.**

## Social Studies

### SS 155 United States History I CP

2.5 credits

This course is a basic survey of the nation's history from colonial times through the Civil War. It covers the principle events, personalities, movements, and ideas from 1780 to 1865. Attention will be given to the following topics: the drafting of the Constitution, the formation of an American identity and political parties, the rise of sectionalism and westward expansion, and the Civil War.

**SS 154 United States History I Honors****2.5 credits**

In addition to the requirements of the college preparatory curriculum, this course presents a more challenging and in-depth investigation of the issues. An emphasis is placed on the development of reading, writing, and interpretive skills and requires extensive assignments in all of these areas.

**SS 355 United States History II CP****2.5 credits**

This course is a basic survey of the period after the Civil War through the end of the Second World War. It covers the principle events, personalities, movements, and ideas from 1870 to 1945. Attention will be given to the following topics: industrialization, America's entrance onto the world stage, the economic conditions of the 1920s and 1930s, and the American role in World War II.

**SS 354 United States History II Honors****2.5 credits**

In addition to the requirements of the college preparatory curriculum, this course presents a more challenging and in-depth investigation of the issues. An emphasis is placed on the development of reading, writing, and interpretive skills and requires extensive assignments in all of these areas.

**SS 557 United States History III CP****2.5 credits**

This course is a basic survey of the period after World War II to the present. It covers the principle events, personalities, movements, and ideas from 1945 to the present. Attention will be given to the following topics: the role of America in rebuilding the world after the Second World War, the creation of the Cold War, the Civil Rights Movement, political and social unrest at home, and the dawn of the 21<sup>st</sup> century.

**SS 558 United States History III Honors****2.5 credits**

In addition to the requirements of the college preparatory curriculum, this course presents a more challenging and in-depth investigation of the issues. An emphasis is placed on the development of reading, writing, and interpretive skills and requires extensive assignments in all of these areas.

**SS 706 World History CP****2.5 credits**

This course is a basic survey of world events from the Renaissance through the Napoleonic era. It covers the principle events, personalities, movements, and ideas of the era and their relationship to contemporary world crises. Attention will be given to the following topics: the Renaissance, the Reformation, Absolutism and the Enlightenment.

**SS706 World History Honors****2.5 credits**

In addition to the requirements of the college preparatory curriculum, this course will examine the influence of world events from 1500-1900 on contemporary world crises, and analyze their cause/effect relationships through independent readings as well as individual and group projects.

**SS 755 Street Law****2.5 credits**

This course is a basic survey of contemporary issues and events in American jurisprudence. It includes the investigation of controversial topics and rulings that have shaped American society. An emphasis is placed on developing reading, writing, and interpretive skills.

**SS 757 Psychology****2.5 credits**

This course is a basic survey of the study of behavior and mental processes. It includes the investigation of the biophysical, cognitive, developmental, and social-emotional analyses of the human psyche. An emphasis is placed on developing reading, writing, and interpretive skills.

**Spanish****SP 175, 375, 575****Spanish I CP****2.5 credits**

This course introduces students to the rudiments of the Spanish languages as it is spoken around the world and particularly in the Americas. Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students gain awareness of Hispanic culture and history through a variety of multi-media sources. By the end of the first year, students should understand spoken Spanish, read materials within their vocabulary level, write grammatically correct sentences and have acquired sensitivity to the Spanish speaking world.

**SP 177, 377, 577, 777****Spanish II CP****2.5 credits**

This course emphasizes the aural-oral skills achieved in the first year of the program. In addition, this course introduces some more advanced grammatical concepts and additional vocabulary necessary for the acquisition of the communicative proficiency through conversation, multi-media presentations, and readings. Students are expected to participate in the target language as well as produce oral and written work. They read material on familiar topics and produce short writing samples. Cultural understanding and appreciation are enhanced through the study of the history, customs, and cultures of various Hispanic nations. Prerequisite: Grade of C or better in Spanish I. Students new to TC need to complete a language assessment.

**SP 379, 579, 779****Spanish III CP****2.5 credits**

The third year strives to develop a more advanced understanding of the four basic skills of communication: listening, speaking, reading and writing. Through the mastery of more complex grammatical patterns, vocabulary, and idiomatic expressions students will continue to become more proficient in the target language. Students should note that class will be conducted primarily in Spanish and that they are expected to engage in daily oral communicative activities in the target language. Culture components and literary selections provide various perspectives of Hispanic world. Prerequisite: Grade C or better in Spanish II. Students new to TC need to complete a language assessment.

**SP 588, 788****Spanish IV CP****2.5 credits**

This course continues to develop aural-oral skills through conversation, interpretive and writing skills through more challenging exercises. More challenging grammar, reading, writing activities, and conversational work will be the basic components of this course. Cultural and literary selections provide various perspectives on the Hispanic world. This class will be conducted primarily in Spanish. Homework on a daily basis and a three-ring notebook on a semester basis are required. Prerequisite: B or better in Spanish III and/or teacher recommendation.

## **Electives**

198, 398, 598, 798

### **Academic Support**

**2.5 credits**

This course will provide support for students who need assistance with organizational and study skills in the college preparatory environment as well as specific interventions in reading and mathematics skills as indicated on an IEP or standardized testing. Guidance recommendation required. Graded as satisfactory or unsatisfactory.

188

### **Math Support**

**2.5 credits**

This course is designed to provide enhanced preparation in Algebra. Students will be scheduled in this class, in lieu of an elective, based on a variety of factors including Grade 7 MCAS and Stanford 10 Math performance.

394

### **MCAS Tutoring LV 3**

**2.5 credits**

This course is designed to provide enhanced MCAS preparation in Mathematics. Students will be scheduled in this class, in lieu of an elective, based on Grade 8 MCAS performance.

MU 199, 399, 595, 795

### **Introduction to Music Appreciation & Theory CP**

**2.5 credits**

In this course, students will develop their own musical understanding, and explore the significance of music from its earliest period to the 21st century. The course also presents introductory concepts in reading and notation.

MU 390, 590, 797

### **Music Appreciation and Theory CP**

**2.5 credits**

This course emphasizes the development of American Music, Jazz, rock and other contemporary genres. Students will also demonstrate an understanding of phrasing, chord notation, and key signatures.

SS 755

### **Street Law CP**

**2.5 credits**

This course provides students with the background reasoning to discuss firm judgments and act on important issues of the times. Students will explore controversial topics and participate in the discussions of issues that are vital to our society. Exercises will develop students' social studies, language arts and critical thinking skills.

SS 757

### **Psychology CP**

**2.5 credits**

This course will focus on the empirical examination of behavior and mental processes. Students will examine the biophysical, cognitive, developmental, and social/emotional domains of the discipline.

## Statement of Philosophy

Successful education is an on-going, ever-changing learning process involving students, families, faculty, administrators and School Committee members, working together to provide a culture of excellence, responsibility, safety, and respect. This process fosters citizenship, social awareness, creativity, self-respect, and a desire to pursue further education. Tri-County Regional Vocational Technical High School offers students opportunities for training and skill development that lead to rewarding employment, and provide a well-rounded education that inspires life-long learning. By developing students' abilities through diverse curricula, including a wide range of instructional settings, Tri-County strives to bring students to their highest potential in the attainment of academic and vocational-technical excellence. Tri-County encourages students to engage in individual, group, and team activities by offering a variety of co-curricular and extra-curricular activities. In conjunction with the academic and vocational-technical curricula, these activities foster productive and responsible citizenship in today's technical society. To support this philosophy, Tri-County maintains the following goals:

- To ensure that students possess the ability to access information, demonstrate interpersonal skills, and use resources and technology.
- To promote literacy, critical-thinking, intellectual curiosity and life-long learning.
- To develop citizens who demonstrate social responsibility, responsible decision-making skills, a sound work ethic and a sense of community.
- To prepare students for entry into the workforce and/or the pursuit of postsecondary education.
- To encourage incoming students to explore various traditional and nontraditional areas.
- To integrate learning between academic and vocational areas.
- To provide a safe and cooperative learning environment for all students and staff.
- To provide cooperative education programs, adult education and extracurricular activities.
- To promote parental involvement and communication.
- To provide meaningful opportunities for professional and staff development.
- To provide extensive student support services.

*The Tri-County Regional Vocational Technical School District is an equal opportunity employer and coeducational high school and does not discriminate because of race, color, sex, religion, national origin, sexual orientation, or disability in its employment policies, in the enrollment of students, or in eligibility for programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Title IX of the 1972 Educational Amendments, and Section 504 of the Rehabilitation Act of 1973. To contact the Title VI, Title IX or 504 Coordinator call or write Karen Kennedy, Interim Director of Guidance, Tri-County RVTHS, 147 Pond Street, Franklin, MA 02038, 508-528-5400.*

# Career Pathways



*Tri-County Regional Vocational Technical High School*



# Tri-County Regional Vocational Technical High School

## Auto Collision Repair

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Frame Inspection and Repair Repairing and Adjusting Outer Panels Metal Welding and Cutting Repairing Mechanical and Electrical Components Preparation and Body Painting	Collision Repair Technician Painting and Refinishing Technician Glass Installation Technician Automotive Reconditioner Automotive Detailer Automotive Recycler Body Shop Owner Insurance Appraiser / Estimator Service Manager Manufacturer Representative	Collision & Refinishing Technology Auto Body Technology Automotive Engineer Mechanical Engineer

**Certification:** Automotive Service Excellence (ASE) Certification  
 General Industry OSHA 10-hour card

**Tech Prep Agreement:** Universal Technical Institute  
 New England Institute of Technology

# Tri-County Regional Vocational Technical High School

## Automotive Technology

### Career Pathways

Skills & Competencies Tri-County Training	Tri-County Diploma or On-The-Job Training	Two-Year or Four-Year College Majors
General Engine Diagnosis and Service General Brake System Diagnosis and Service General Electric System Diagnosis and Service Battery Diagnosis General Suspension and Steering System Diagnosis and Service Starting System Diagnosis and Service Computerized Controls Diagnosis and Service Fuel, Exhaust and Emissions Diagnosis and Service Transmission Service and Repair	Diesel Technician Motorcycle Repair Technician Manufacturer Technician Diagnostic Specialist Parts Department Specialist Service Writer Service Manager General Manager Manufacturer Representative	Automotive Technology Automotive Engineering Diesel Technology Mechanical Engineering

**Certification:** Automotive Service Excellence (ASE) Certification  
 Automotive Youth Educational Systems (AYES) Certification  
 General Industry OSHA 10-hour card

**Tech Prep Agreement:** Mass Bay Community College, University of Northwestern Ohio,  
 Universal Technical Institute, New England Institute of Technology

# Tri-County Regional Vocational Technical High School

## Carpentry

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Print Reading, Estimation and Measuring Set-up, Operate and Maintain Power Equipment Framing Floors, Walls, Ceilings and Roofs Interior and Exterior Trim and Wood Doors Fabricate Counters, Stair Work, Casework and Windows CAD Drawing Concrete Form Work and Pouring Concrete Finishing Roofing and Siding	Rough Carpenter Finish Carpenter Cabinet Maker Wood Products Installer Roofer Siding Installer Floor Installer and Refinisher Union Apprentice Cost Estimator Construction Foreman	Construction Technology Drafting Technology Civil Engineering Architectural Engineering Industrial Engineering

**Certification:** 10-Hour OSHA Construction Safety Course Certification

**Tech Prep Agreement:** New England Institute of Technology  
 Wentworth Institute: Construction Materials and Methods  
 Massachusetts Maritime Academy (requires Academic Prerequisites)

# Tri-County Regional Vocational Technical High School

## Computer Information Systems

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Data Entry	Customer Support Technician	Webpage Multimedia Design
Basic Network Technology	Data Communications Technician	Computer Programming
Network System Hardware & Software Operations	Network Installation Technician	Game Development
Programming Concepts	PC Support Specialist	Game Design
Utilization of Multimedia Tools	Computer Assembly Technician	Webmaster
Create HTML Documents	Software Trainer	Software Engineer
Use and Support Computer Operating Systems	Computer Repair Technician	Computer Hardware Engineer
Computer Security and Risk Issues	Computer Sales Representative	Interactive Media and Computer Design
Identify Network Design Concepts	Web Systems Administrator	Computer Information Systems
Troubleshoot and Maintain Network Performance	Computer Programmer	Computer Science
Hardware Installation, Configuration and Interconnectivity	Computer Engineer	Vocational/Technical Instructor
Perform Preventative Maintenance Procedures	Webmaster	Database Administrator
Troubleshoot Hardware & Software Problems		Network Engineer

**Certification:** A+ (PC Hardware & Software Repair), CCNA-Cisco Certified Network Associate, MOS- Microsoft Office Specialist Certification, OSHA – 10 Hour Safety Certification, Network + - Configure and Operate Networking Devices, IC<sup>3</sup> – Internet & Computing Core Certification, CCENT-Cisco Certified Entry Networking Technician

**Tech Prep Agreement:** New England Institute of Technology, Bristol Community College, Bunker Hill Community College

# Tri-County Regional Vocational Technical High School

## Construction Craft Laborer

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Read and Interpret Site & Building Prints Select and Use Appropriate Hand, Power and Pneumatic Tools Use Line and Grading Equipment Use and Maintain Ladders and Scaffolds Apply Masonry Skills Prepare, Level, Finish Vertical and Horizontal Concrete Placement. Apply Hoisting and Riggings Skills Apply Trenching and Excavation Skills Apply Pipelaying Skills and Techniques Prepare Demolition Sites Apply Shielded Metal Arc Welding Skills and Techniques	Construction Laborer General Construction Worker Asbestos Abatement Worker Lead Abatement Worker Asphalt Worker Nuclear Power Plant Worker	Building Construction Technology Business Administration Civil Engineering Mechanical Engineering Construction Management

**Certification:** American Welding Society, American Red Cross First Aid and CPR, OSHA 10- and 30-Hour Construction Outreach, American Crane Institute Hoisting & Rigging Certification, Microbial Remediation, D.O.T. Flagging Certification, Masonry Contractors Association of American, Forklift Trainer Certification-Rough Terrain, MARR Elevator Work Platform Certification.

**Tri-County Regional Vocational Technical High School**  
**Cosmetology**  
**Career Pathways**

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Customer Service Skills Marketing & Management Activities Proper Shampooing Procedures Blow Dry Styling Techniques Perform Hair / Scalp Treatment Perform Basic Make-Up Application Demonstrate Manicure and Pedicure Procedures Demonstrate Hair Shaping Techniques Perform Hair Coloring Procedures Perform Permanent Waving Procedures Perform Chemical Hair Relaxing Temporary Hair Removal / Waxing	Hairstylist Hair Colorist Nail Technician Esthetician Massage Therapist Salon Manager Salon Owner Theatrical Make-Up Artist Manufacturer's Representative Platform Artist	Fashion and Apparel Design Fashion Merchandizing Forensics Entrepreneurial Studies Business Management SPA Esthetician (600 hrs.) Massage Therapist Electrologist (1,000 hrs.) Electrolysis Technician Medical Esthetician (900 hrs.) Barbering

**Certification:** 1,000 hours needed for State Exam are approved by The Board of Registration of Cosmetology  
 General Industry OSHA 10-hour card

# Tri-County Regional Vocational Technical High School

## Culinary Arts

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Menu Planning, Ordering, Receiving and Storage Perform Dining Room Service Activities Perform Host or Hostess Activities Orientation to Hotel, Restaurant and Tourism Sales & Marketing Introduction to Banquet and Catering Services Cooking Methods and Food Preparation Preparing Soups, Sauces, Salads Orientation to Garde Manger, Hors d'oeuvres, and Appetizers Prepare Baked Goods Prepare Frostings and Cake Decorating	Prep Cook Line Cook Sous Chef Chef Cake Decorator Baker Wait Staff Maitre D' Hotel Restaurant Owner Bakery Owner Caterer Meat Cutter Food Service Manager Pastry Chef	Culinary Arts Baking and Pastry Arts Foods & Beverage Management Hotel & Restaurant Management Culinary Nutrition Nutrition Sciences Hotel and Tourist Management Food Science

**Certification:** Certified Culinary Graduate, Pro-Start Certification, Serve Safe Certification, MA Food Handlers Certification  
 General Industry OSHA 10-hour card

**Tech Prep Agreement:** Johnson & Wales University, Bristol Community College, Newbury College

# Tri-County Regional Vocational Technical High School

## Dental Assisting Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Sterilize instruments Set up instrument trays Take medical/dental histories Take vital signs of patients Provide dental care instructions to patients Make preliminary impressions of teeth Take opposing model-impressions and bite registrations Clean and polish removable appliances Help dentist manage medical and dental emergencies Provide pre- and post-operative instructions as prescribed by dentist Assist at chair side for general dentistry and specialty dentistry Coronal polish teeth Make bleaching trays Place dental sealants Perform fluoride treatments Take dental x-rays (digital & conventional) Take a tooth print impression	Dental Assistant Dental Laboratory Assistant Medical Records/Health Information Technician Dental Receptionist Insurance Biller	Dental Hygienist Dental Laboratory Technician Health Information/Medical Records Administrator Radiological Technical Regional Office Manager Dental Assisting Teacher Dental Consultant Dental Management Careers Dental Sales Representative

**Certification:** Dental Assisting National Board Certifications in Radiation Health & Safety and Infection Control, CPR: Health Care Provider Status  
 General Industry OSHA 10-hour card

**Tech Prep Agreement:** Porter & Chester Institute (pending)



# Tri-County Regional Vocational Technical High School

## Early Childhood Education

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Create Childhood Self Concept and Emotional Development Activities Apply Standard Healthcare Activities Design and Maintain a Positive Learning Environment Develop Activities that Foster Optimal Physical Social and Cognitive Development Create Activities that Develop Communication Skills Develop Activities that Encourage Student's Natural Creativity Provide Appropriate Behavioral and Social Guidance to Young Children Determine Methods to Encourage Family Involvement in the Learning Process Learn Methods of Assessing Student Achievement	Teacher Assistant Nanny Certified Pre-School Teacher Full Day Child Care Provider Recreational Aide Family Day Care Provider	Elementary Education Early Childhood Education Special Education Speech Pathology Psychology Sociology Human Services School Psychologist Social Work Occupational Therapy Education (any/all grade levels) Guidance Counselor Criminal Justice

**Certification:** MA Dept. of Early Education and Care, First Aid/CPR  
 General Industry OSHA 10-hour card

**Tech Prep Agreement:** MassBay Community College, Community College of Rhode Island,  
 Fisher College

# Tri-County Regional Vocational Technical High School

## Electrical

### Career Pathways

Skills & Competencies Tri-County Training	Tri-County Diploma or On-The-Job Training	Two-Year or Four-Year College Majors
Print Reading Basic Concepts of Electrical Theory Use of Electrical Test Equipment Electrical Code Install Electrical Boxes and Fittings Install Conductors Apply Concepts of Commercial, Industrial and Residential Wiring Demonstrate Methods of Overcurrent Protection Identify Principals of Grounding Install and Maintain Lighting and Luminaries Install Security Systems and Fire Alarm Systems Photo Voltaic Motor Controls	Apprentice Electrician Cable TV Technician Fire Alarm Technician Telecommunications Technician Security Systems Technician	Electrical Engineering Technology Electrical Engineer Telecommunications Engineer Electronics Engineer Business

**Apprenticeship Pathway** approved by Board of Electricians & Massachusetts Electrical Contractors

**Tech Prep Agreement:** New England Institute of Technology, Wentworth Institute: Circuit Analysis, Massachusetts Maritime Academy (requires Academic Prerequisites)

**Certification:** Shop and Related Hours are approved by The Massachusetts State Board of Electrical Examiners, 10-Hour OSHA Construction Safety Course Certification

# Tri-County Regional Vocational Technical High School

## Engineering Technology

### Career Pathways

Skills & Competencies Tri-County Training	Tri-County Diploma or On-The-Job Training	Two-Year or Four-Year College Majors
Demonstrate and Apply the Design Process Develop Problem Solving, Diagnostic and Troubleshooting Skills Calibrate & Use Electronic Devices and Gauges to Solve Problems Define and Describe the Types of Engineering Document and Communicate Engineering Concepts and Systems Explain the Principals of Design Utilize Computer Aided Drafting Understand Circuital & Electrical Current Identify Mechanical Components and Understand the Manufacturing Process Understand, Program and use CNC Machine Develop and Program a Robot Develop and Plan Methods of Production Understand and Design Simple Aeronautical Systems Understand and Design Basic Architectural Structures Research new Technologies	Civil Engineering Technician Surveying Technician Electrical Engineering Technician Electronic Engineering Technician Electromechanical Engineering Technician Environmental Engineering Technician Industrial Engineering Technician Mechanical Engineering Technician Architecture Technician Manufacturing Engineering Technician	Acoustical Engineer Aerospace Engineer Agricultural Engineer Biomedical Engineer Chemical Engineer Civil Engineer Computer Engineer Electrical Engineer Electronics Engineer Environmental Engineer Industrial Engineer Marine Engineer Nuclear Engineer Petroleum Engineer Mechanical Engineer Architect Manufacturing Engineer

**Certification:** Project Lead The Way, General Industry OSHA 10-hour card

**Tech Prep Agreements:** Massachusetts Maritime Academy (requires Academic Prerequisites)

# Tri-County Regional Vocational Technical High School

## Facilities Management Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Print Reading Carpentry Framework and Repair Plumbing and Pipe Fitting Basic Electrical Wiring HVAC Troubleshooting and Preventative Maintenance Welding and Metal Fabrication Painting Landscaping Maintenance	Painter Landscaper Facilities Operations Technician Construction Foreman/Manager Facilities Manager	Facilities and Environmental Engineering Building Construction Technology Electrical Technology Plumbing Technology Manufacturing Engineering Technology Mechanical Engineer Industrial Engineer Electrical Engineer Welding Technology

**Certification:** American Welding Society-D1.1 Welding Certification  
 10-Hour OSHA Construction Safety Course Certification

**Tech Prep Agreements:** Massachusetts Maritime Academy (requires Academic Prerequisites)

# Tri-County Regional Vocational Technical High School

## Graphic Communications

### Career Pathways

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Pre-Production and Layout Demonstrate Effective Press Practices Bindery and Publishing Distribution Scanning Applying Photographic Principles Utilization of Desktop Publishing Software Digital Imaging and Web Animation	Press Operator Plate Maker Screen Printer Bindery Technician Electronic Pre-Press Technician Desktop Publisher Customer Service Representative Quality Assurance Technician Proofreader Printing Equipment Repair Technician	Graphic Design Film / Video Illustration Photography Cinematography Audio and Media Technology Digital Media Production Interactive Media Design Game Developer Printmaker Interior Design Web Design Print Media Printing Management Printing Technology Print Production

**Certifications:** General Industry - OSHA 10-hour card

**Tech Prep Agreements:** Center for Digital Imaging Arts at Boston University, Bristol Community College

## Tri-County Regional Vocational Technical High School Heating, Ventilation, Air-Conditioning and Refrigeration Career Pathways

Skills & Competencies Tri-County Training	Tri-County Diploma or On-The-Job Training	Two-Year or Four-Year College Majors
Print Reading Electrical Controls and Systems Piping, Fittings and Materials Refrigeration Tools and Testing Instruments Installation, Wiring and Service Refrigeration Cycle Concepts of Air-Conditioning Electrical Controls and Systems Heat Pump and Electric Heating Oil and Gas Heat Efficiency, Installation and Service	HVAC/R Installer HVAC/R Mechanic Heating and Cooling Technician Oil Burner Technician Gas Burner Technician Control Wiring Specialist Mechanical Drafter / Design / AutoCAD Sheet Metal Technician Refrigeration Technician	Heating, Ventilation and Air-Conditioning Technology Industrial Engineering Technology Mechanical Engineering Civil Engineering Electrical Engineering Marine Engineering Facility Engineer

**Certification:** 10-Hour OSHA Construction Safety Course Certification  
Eligible for EPA Section 608 Technician Certification Test

**Tech Prep Agreements:** Massasoit Community College  
Massachusetts Maritime Academy (requires Academic Prerequisites)  
New England Institute of Technology

# Tri-County Regional Vocational Technical High School

## Medical Careers Career Pathways

Skills & Competencies Tri-County Training	Tri-County Diploma or On-The-Job Training	Two-Year or Four-Year College Majors
Health Care Office Management Administering Comfort Measures Assisting with Nutrition and Hydration Understanding Emergency Procedures Demonstrating a Knowledge of Basic Laboratory Skills Knowledge of Health Related Specialties Completing Certification Processes, ie: CPR, First Aid, Certified Nursing Assistant Medical Terminology Learning and Application of all CNA Skills in Hospital and Long Term Care Setting Growth and Development Knowledge and Application in Daycare Facility Alzheimer's Care and Clinical Application	Certified Nursing Assistant Certified Home Health Aide EKG Technician Medical Office Assistant Occupational Therapy Assistant Pharmacy Assistant	Registered Nurse Licensed Practical Nurse (1 year program) Occupational Therapy Physical Therapy Pharmacy Lab Technician Operating Room Technician Radiology Radiological Technician Respiratory Technician Exercise Science Sports Medicine Forensics Paramedic (Certificate Program) Therapeutic Massage Physical Therapy Assistant Psychology Physician Assistant Surgical Technology

**Certification:** Massachusetts Department of Public Health Certified Nursing Assistant (CNA)  
 Healthcare Provider Basic Life Support CPR/AED/First Aid Training,  
 American Heart Association  
 Pharmacy Technician Certification  
 General Industry OSHA 10-hour card

**Tri-County Regional Vocational Technical High School**  
**Metal Fabrication**  
**Career Pathways**

<b>Skills &amp; Competencies Tri-County Training</b>	<b>Tri-County Diploma or On-The-Job Training</b>	<b>Two-Year or Four-Year College Majors</b>
Welders Structural Iron Worker Sheet Metal Worker Sheet Metal Assembler Helper General Industrial Worker	Welding Technician Sales Person Machine Operator Pipe Fitter Boilermaker	Welding Educator Materials Engineer Welding Engineer Business Owner Underwater Welder Metallurgist Researcher Welding Inspector

**Certifications:** American Welding Society (AWS)  
Construction Industry OSHA 10-hour card



# Tri-County Regional Vocational Technical High School

## Plumbing and Hydronic Heating

### Career Pathways

Skills & Competencies Tri-County Training	Tri-County Diploma or On-The-Job Training	Two-Year or Four-Year College Majors
Print Reading Knowledge of Steel Pipe, Copper Pipe, Cast Iron Pipe and Plastic Pipe Names, Classifications and Sizing of Fittings Principles of Water Supply Drainage Waste and Vent/Piping Servicing of the Plumbing System Fuel Gas Systems	Apprentice Plumber Apprentice Pipefitter Licensed Plumber Licensed Pipefitter Sprinkler Fitter Water Filtration Technician Heating Contractor Gas Service Technician Home Inspector Irrigation System Technician Draftsperson Plumbing Contractor	Plumbing Technology Civil Engineer Mechanical Engineer Construction Technology Facilities and Environmental Engineering

**Certification:** Shop and Related Hours are approved by Massachusetts Board of State Examiners of Plumbers and Gas Fitters (requires state license)

Apprenticeship Agreement JATC Plumbers & Pipefitters Local 4

10-Hour OSHA Construction Safety Course Certification

**Tech Prep Agreements:** New England Institute of Technology  
 Massachusetts Maritime Academy (requires Academic Prerequisites)