



# **Whittier Regional Vocational Technical High School**

**Program of Studies  
2022-2023**



**115 Amesbury Line Road  
Haverhill, MA 01830  
[www.whittiertech.org](http://www.whittiertech.org)**

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It is the policy of Whittier Regional Vocational Technical High School not to discriminate on the basis of race, color, sex, gender identity, religion, national origin, sexual orientation, homelessness status, or physical and intellectual differences in its educational programs, activities, or employment policies as required by Title IX of the Educational Amendments of 1972, Chapter 76, Section 5, Special Education, and Section 504 of the Rehabilitation Act of 1973.

Inquiries regarding compliance with these policies may be directed to Chris Laganas, Principal or to Whittier Regional Vocational Technical High School, 115 Amesbury Line Road, Haverhill, MA 01830

### **INFORMATION / INFORMACIÓN / EM FORMAÇÃO**

*IN ENGLISH:* If you need information in Spanish please call 978-373-4101 extension 252. Thank you.

*EN ESPAÑOL:* Si necesita de ayuda o información en Español llame el número 978-373-4101 extensión 252. Gracias.

*EM INGLÊS:* Se você precisar de informações em espanhol, ligue para 978-373-4101 ramal 252. Obrigado.

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# **Mission Statement, Core Values, Beliefs, and Learning Expectations**

## **Mission Statement**

Whittier has a unified commitment to excellence in meeting the educational needs of individuals in the Whittier District, while being accountable to its member communities.

This commitment is to enable students to be successful in their chosen technical pursuits and to become productive members of society.

## **Core Values**

Whittier Regional Vocational Technical School is committed in its core values to the development of LEADERS in the community.

LIFELONG LEARNING

ENGAGEMENT

ACADEMIC AND TECHNICAL EXCELLENCE

DIVERSITY

ETHICAL INTEGRITY

RESPONSIBILITY

SKILLS AND KNOWLEDGE APPLICATION

## **Beliefs About Learning**

Whittier Regional Vocational Technical High School is firmly committed to an academic and technical education that will prepare students with employability skills, high academic standards, and a commitment to lifelong learning. Our commitment as a technical high school is to provide the highest quality instruction in both technical and academic programs for a diverse student population. Our technical courses reflect current national industry standards. Our academic and technical curriculum includes instructional strategies and materials that address the competencies set forth in the Massachusetts Curriculum Frameworks, Vocational/Technical Educational Frameworks, and National Standards. Through wise and intelligent use of the diverse resources of faculty, administration, students and the community, Whittier has as its primary goal the total development of the student who will succeed in an ever-changing technological society. Whittier is proud of its commitment and is pleased to be a dynamic part of the business and professional community it serves.

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## **Program of Studies Overview**

We are pleased to offer you the Program of Studies for Whittier Regional Vocational Technical High School. This book provides detailed information regarding the academic and vocational technical courses that are offered. It is the mission of our school district to provide students with excellence in vocational technical training along with a rigorous academic curriculum.

All students participate in four years of a sequential core academic curriculum in English, math, science, and social studies. Students are also encouraged to participate in the World Language Program for a minimum of two years. As a result of the educational demands of our society, we offer advanced placement (AP), early college, honors, and college preparatory programs to ensure our students are able to demonstrate the necessary grade-level 21st-century readiness skills. These programs not only help students learn higher-level thinking skills, but they also build a students capacity to solve problems creatively. All of our programs prepare students to be lifelong learners and enter both higher education and the world of work.

Whittier Regional Vocational Technical High School offers 23 vocational technical programs designed to provide the necessary training and skills for personal and workforce success. We actively promote and teach the most current industry standards in every one of our technical areas.

Please utilize the Program of Studies as a guide in developing a program for your son/daughter to appropriately meet their needs, abilities and interests. This will ensure a successful educational experience here at Whittier.

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## Graduation and Promotion Requirements

### Grade 9

Vocational Technical Exploratory Program .....	10.0 credits
English .....	7.5 credits
History.....	5.0 credits
Mathematics.....	7.5 credits
Science.....	7.5 credits
Physical Education/Health .....	0.0 credits
World Language.....	2.5 credits
Total Credits.....	40.0 credits

### Grade 10

Vocational Technical Program .....	20.0 credits
English .....	5.0 credits
History .....	2.5 credits
Mathematics.....	5.0 credits
Science.....	5.0 credits
Physical Education/Health .....	0.0 credits
World Language.....	2.5 credits
Total Credits.....	40.0 credits

### Grade 11

Vocational Technical Program .....	20.0 credits
English .....	5.0 credits
History .....	2.5 credits
Mathematics.....	5.0 credits
Science .....	5.0 credits
Physical Education/Health .....	0.0 credits
Elective/Foreign Language .....	2.5 credits
Total Credits.....	40.0 credits

### Grade 12

Vocational Technical Program .....	20.0 credits
English .....	5.0 credits
History.....	2.5 credits
Mathematics.....	5.0 credits
Science .....	2.5 credits
Physical Education/Health .....	0.0 credits
Elective/Foreign Language.....	2.5 credits
Elective .....	2.5 credits
Total Credits.....	40.0 credits

#### Promotion/Graduation Requirements

Students must take and pass four years of English, mathematics, history and science, which are considered to be core academic subjects. These courses are a requirement for promotion to the next grade level and for graduation.

Students who fail any of the core academic subjects in any school year must attend and must pass the failed course in an approved summer school program. The failed course must be passed in the summer school immediately following the school year in which the course was failed.

If a student who fails a core academic course does not attend summer school or does not pass the summer school course, he/she will be retained in the previous grade and will not be promoted. If a student fails core courses in grade 12, he/she will not be eligible for graduation and will not be permitted to participate in the graduation ceremony.

All students must also participate in four years of the physical education/health program. Students **must** pass their vocational technical areas each year to be eligible for promotion and graduation.

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# Academic Curriculum

## English Courses

### English 9 – Honors

This advanced college preparatory course is designed for the motivated, self-directed student. It provides students with an in-depth study of literature and focuses on independent research, critical analysis, and written composition.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on developing skills necessary for the 10th grade MCAS test. **A Guidance Department recommendation based on academic achievement is required for the selection of this course.**

### English 9 – College Preparatory I

This accelerated college preparatory course is designed to provide students with comprehension and critical thinking skills through the study of the various genres of literature including novels, short stories, poetry, and drama.

This course encompasses a correlated study of literature, language, conventions, composition, vocabulary development, listening, and speaking. This course is designed to meet state-mandated objectives through a sequential and scaffolded writing program that draws upon both literary and informational text. Writing assignments are built upon works studied in literature.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on developing skills necessary for the 10th grade MCAS test.

### English 9 – College Preparatory II

This college preparatory course encompasses a correlated study of literature, language, conventions, composition, vocabulary development, listening, and speaking. This course is designed to meet state-mandated objectives through a sequential and scaffolded writing program that draws upon both literary and informational text. Writing assignments are built upon works studied in literature.

Instructional emphasis is placed on comprehension and critical thinking skills through the study of various genres of literature including novels, short stories, poetry and drama. Each unit will focus on characteristics of the genres and examine how the form influences the author's purpose and effectiveness.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on developing skills necessary to be successful on the 10th grade MCAS test.

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## **English 10 – Honors**

This advanced college preparatory course is designed for the motivated, self-directed student. It provides students with an in-depth study of diverse literary works of various genres. Instructional emphasis is placed on critical analysis, independent research, and advanced writing skills.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on developing skills necessary to be successful on the 10th grade MCAS test. **An English Department recommendation is required for the selection of this course.**

## **English 10 – College Preparatory I**

This accelerated college preparatory course focuses on literary works of various genres. Students will read, discuss, analyze and write about these diverse texts to demonstrate their understanding. Instructional emphasis is placed on writing with a clear focus, logical development, effective use of detail, and variety in sentence structure, as well as revising and editing with attention to content, organization, and style.

By the end of this course the students will be able to demonstrate the necessary grade-level 21st century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on developing skills necessary to be successful on the 10th grade MCAS test.

## **English 10 – College Preparatory II**

This college preparatory course encompasses a correlated study of literature, language, conventions, composition, vocabulary development, listening, and speaking. This course focuses on the application of previously acquired reading, writing, and test-taking skills.

This course will focus on literary works of various genres. Students will discuss, analyze and write about these diverse texts to demonstrate their understanding. Instructional emphasis is placed on writing with a clear focus, logical development, effective use of detail, and variety in sentence structure and editing; revising with attention to content, organization, and style; and editing with attention to clauses, mechanics, and sentence structure. Writing assignments will be aligned with works studied in literature.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on developing skills necessary to be successful on the 10th grade MCAS test.

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## **English 11 – Honors**

This advanced college preparatory course is designed for the motivated, self-directed student. It provides students with critical thinking and analytical skills through the challenging study of literature, composition, and vocabulary development. Instructional emphasis is placed on helping students achieve effective written and oral communication skills through independent research and research projects, oral presentations, and compositions.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on previewing and preparing for the various types of college entrance exams and post-secondary exams. **An English Department recommendation is required for the selection of this course.**

## **English 11 – College Preparatory I**

This accelerated college preparatory course emphasizes comprehension, literary analysis, and critical thinking skills through the study of various genres of literature including novels, short stories, poetry, and drama. Each unit will focus on characteristics of the genres and examine how the form influences the author's purpose and effectiveness.

The course encompasses a correlated study of literature, language, conventions, composition, vocabulary development, listening, and speaking. Focus is placed on the skills necessary for effective written and oral communication; note taking, outlining, research methods, writing, critical thinking, and public speaking.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on previewing and preparing for the various types of college entrance exams and post-secondary exams.

## **English 11 – College Preparatory II**

This college preparatory course encompasses a correlated study of literature, language, conventions, composition, vocabulary development, listening, and speaking. Focus is placed on the skills necessary for effective written and oral communication; note taking, research methods, writing, critical thinking, and public speaking.

This course emphasizes comprehension, literary analysis, and critical thinking skills through the study of various genres of literature including novels, short stories, poetry, and drama. Each unit will focus on characteristics of the genres and examine how the form influences the author's purpose and effectiveness.

By the end of this course the students will be able to demonstrate the necessary grade-level 21st century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on previewing and preparing for the various types of college entrance exams and post-secondary exams.

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## English 101 – English Composition 1

This course is a concurrent enrollment course in collaboration with Northern Essex Community College. This course fulfills one semester of the Whittier Honors English 11 or Honors English 12 curriculum for the high school diploma. In addition, students earn 3 undergraduate credit hours from Northern Essex Community College. This course is designed to develop critical thinking and clear, effective writing. Students will explore the reading and writing processes and complete a range of source-based essays. Additional NECC course credit and materials fees are the responsibility of the student/family. **An English Department recommendation based on grades and attendance is required for enrollment in this course as well as successful completion of college placement testing (Accuplacer). Pre-requisite: Accuplacer**

## English 101 – English Composition 2

This course is the continuation of English Composition 1. It is a concurrent enrollment course in collaboration with Northern Essex Community College. This course fulfills one semester of the Whittier Honors English 11 or Honors English 12 curriculum for the high school diploma. In addition, students earn 3 undergraduate credit hours from Northern Essex Community College. This course is designed to develop clear, effective writing, emphasizing analysis, argumentation, and research. Students will demonstrate their competence through a variety of writing assignments, including essays and a research paper. Successful completion of a research paper is required to pass this course. Additional NECC course credit and materials fees are the responsibility of the student/family.

**Successful completion of English Composition 1 with a minimum grade of C is required for enrollment in this course. Pre-requisite: English Composition 1**

## English 12 – Honors

This advanced college preparatory course is designed for the motivated, self-directed student. This course focuses on refining and mastering skills in writing, reading, literary analysis, speaking, and listening. Reading assignments will focus on inferential reasoning and critical reading skills in a variety of genres. Students are expected to participate in college-level discussions and complete a variety of analytical writing assignments. A research paper, college essay, résumés, and cover letter writing, and several oral presentations will be required.

By the end of this course, the students will be able to demonstrate the necessary grade-level 21st-century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on previewing and preparing for the various types of college entrance exams and post-secondary exams. **An English Department recommendation is required for the selection of this course.**

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## **English 12 – College Preparatory I**

This accelerated college preparatory course emphasizes comprehension, literary and media analysis, as well as critical thinking skills through the study of various genres of literature including novels, short stories, poetry, and drama. Each unit will focus on characteristics of the genres and examine how the form influences the author's purpose and effectiveness. This course also stresses the skills necessary to increase students' inferential comprehension. Instructional emphasis is placed on a research paper, college essay, résumé, and cover letter writing, vocabulary development, oral presentations, and narrative and persuasive writing.

By the end of this course the students will be able to demonstrate the necessary grade-level 21st century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on previewing and preparing for the various types of college entrance exams and post-secondary exams.

## **English 12 – College Preparatory II**

This college preparatory course encompasses a correlated study of literature, language, conventions, composition, vocabulary development, listening, and speaking.

While vocabulary skills and test taking skills continue, a large segment of the course is dedicated to the writing of a research paper, college essay, résumés and cover letters, essays, and speeches.

This course emphasizes comprehension, literary and media analysis, as well as critical thinking skills through the study of various genres of literature including novels, short stories, poetry, and drama. Each unit will focus on characteristics of the genres and examine how the form influences the author's purpose and effectiveness.

By the end of this course the students will be able to demonstrate the necessary grade-level 21st century readiness skills by exhibiting the capacities necessary for both college and career readiness.

This course is aligned with state-mandated frameworks, with an emphasis on previewing and preparing for the various types of college entrance exams and post-secondary exams.

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## Academic Curriculum

### History Courses

#### U.S. History 1 – Honors (Grade 9)

This advanced college preparatory course provides students with an in-depth study of United States History from 1763 to the end of World War I. Research will be assigned which covers topics including the framework of the U.S. Government, concepts of American democracy, various historical events, geographical changes within the United States, and the creation of the U.S. Constitution. Students will expand their capacity for historic, economic, and political reasoning. They will strengthen their ability to develop research questions and conduct inquiries by interpreting primary sources. Students will be expected to have strong analytical and critical thinking skills. Emphasis will be placed on establishing the necessary foundational knowledge about significant and recurring questions in United States History in preparation for citizenship, college, careers, and the MCAS History exam. Grade 9 students will begin researching their topics for the Civics Engagement Project. Students will do this by researching an existing policy or subject. Students will select one issue that they believe to be the most important or interesting. Students must document all websites and areas of research. This is a requirement of Grade 9. **A History Department recommendation is required for the selection of this course.**

#### U.S. History 1 – College Preparatory I (Grade 9)

This is an accelerated college preparatory course. This course presents an in-depth study of the origins of the United States during the Revolution and Constitutional eras, 1763 to the end of World War I. Students will expand their capacity for historic, economic, and political reasoning. They will strengthen their ability to develop research questions and conduct inquiries by interpreting primary sources. The basic framework of American democracy and the concepts of American government such as popular sovereignty, federalism, separation of powers, individual rights, and geographical changes within the United States, will be studied. Students will develop skills in writing and content knowledge while establishing the necessary foundational knowledge about significant and recurring questions in United States History in preparation for citizenship, college, careers, and the MCAS History exam. Map skills, reading and interpreting charts and graphs, and the utilization of primary source materials will be stressed throughout the course. Grade 9 students will begin researching their topics for the Civics Engagement Project. Students will do this by researching an existing policy or subject. Students will select one issue that they believe to be the most important or interesting. Students must document all websites and areas of research. This is a requirement of Grade 9.

#### U.S. History 1 – College Preparatory II (Grade 9)

This is a college preparatory course. This course examines the origins of the United States during the Revolution and Constitutional eras, 1763 to the end of World War I. The basic framework of American democracy and the basic concepts of American government such as popular sovereignty, federalism, separation of powers, individual rights, and geographical changes within the United States will be studied. Students will expand their capacity for historic, economic, and political reasoning. Emphasis will be placed on establishing the necessary foundational knowledge about significant and recurring questions in United States History in preparation for citizenship, college, careers, and the MCAS History exam. Map skills, reading and interpreting charts and graphs, and the utilization of primary source materials will be stressed. Grade 9 students will begin researching their topics for the Civics Engagement Project. Students will do this by researching an existing policy or subject. Students will select one issue that they believe to be the most important or interesting. Students must document all websites and areas of research. This is a requirement of Grade 9.

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## **U.S. History 2 – Honors (Grade 10)**

In this advanced college preparatory course, students will continue their study of United States history in the 20<sup>th</sup> and 21<sup>st</sup> centuries. The topics studied include the role of economics in modern United States history, modernity in the United States: ideologies and economies, defending Democracy: Responses to fascism and communism, defending Democracy: The Cold War and Civil Rights at Home, and the United States and globalization. Students will be expected to form their own questions for discussion and research while also demonstrating strong analytical and critical thinking skills. Students will also be expected to read and comment on the primary sources that are included in the U.S. History 2 Frameworks. Continued work on the Civics Engagement Project will be completed throughout this course. Grade 10 students will continue researching their topic for the Civics Engagement Project. They will do this by writing a political speech to attempt to change an existing policy or an area in need of help. They need to document all of their work and the final project will be a political speech. Students will complete a series of assignments that will help them prepare their final written project that will consist of a political speech. This is a requirement of Grade 10. **A History department recommendation is required for the selection of this course.**

## **U.S. History 2 – College Preparatory I (Grade 10)**

In this accelerated college preparatory course, students will continue their study of United States history in the 20<sup>th</sup> and 21<sup>st</sup> centuries. The topics studied include the role of economics in modern United States history, modernity in the United States: ideologies and economies, defending Democracy: Responses to fascism and communism, defending Democracy: The Cold War and Civil Rights at Home, and the United States and globalization. Students will be expected to read and comment on the primary sources of the times. Students will learn to respond appropriately to the essay and open response questions and will develop skills in writing and content knowledge to prepare them for the MCAS History test. Continued work on the Civics Engagement Project will be completed throughout this course. Grade 10 students will continue researching their topic for the Civics Engagement Project. They will do this by writing a political speech to attempt to change an existing policy or an area in need of help. They need to document all of their work and the final project will be a political speech. Students will complete a series of assignments that will help them prepare their final written project that will consist of a political speech. This is a requirement of Grade 10.

## **U.S. History 2 – College Preparatory II (Grade 10)**

This is a college preparatory course where students will continue their study of United States history in the 20<sup>th</sup> and 21<sup>st</sup> centuries. The topics studied include the role of economics in modern United States history, modernity in the United States: ideologies and economies, defending Democracy: Responses to fascism and communism, defending Democracy: The Cold War and Civil Rights at Home, and the United States and globalization. Students will learn to read, comment, and respond appropriately to primary sources of the times and will work on essay and open response questions to prepare them for the MCAS History test. Continued work on the Civics Engagement Project will be completed throughout this course. Grade 10 students will continue researching their topic for the Civics Engagement Project. They will do this by writing a political speech to attempt to change an existing policy or an area in need of help. They need to document all of their work and the final project will be a political speech. Students will complete a series of assignments that will help them prepare their final written project that will consist of a political speech. This is a requirement of Grade 10.

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### **World History – Honors (Grade 11)**

This advanced college preparatory course provides students with an in-depth study of the economic, cultural, and political aspects of major historical events. Students will learn about the following topics throughout the school year: Absolute power, political revolutions, and the growth of nation states, c. 1700–1900, The Agricultural and Industrial Revolutions in Europe and social and political reactions in Europe, The global effects of 19th-century imperialism, The Great Wars, 1914–1945, The Cold War Era, 1945–1991, The era of globalization 1991–present, and The politics of difference among people: conflicts, genocide, and terrorism. Students will be expected to finalize their Civics Engagement Project, examine current events, and use advanced critical thinking skills in studying world events. Grade 11 students will meet in a peer editing group, present their Civics Engagement draft, and share feedback. Students will then present their Civics Engagement Project orally to the class. This is a requirement of Grade 11. **A History department recommendation is required for the selection of this course.**

### **World History – College Preparatory I (Grade 11)**

This is an accelerated college preparatory course. Students will learn about the following topics throughout the school year: Absolute power, political revolutions, and the growth of nation states, c. 1700–1900, The Agricultural and Industrial Revolutions in Europe and social and political reactions in Europe, The global effects of 19th-century imperialism, The Great Wars, 1914–1945, The Cold War Era, 1945–1991, The era of globalization 1991–present, and The politics of difference among people: conflicts, genocide, and terrorism. Students will be expected to finalize their Civics Engagement Project and will be expected to develop skills in reading and writing to a high degree. The students will be able to respond in-depth to essay and open response questions. Grade 11 students will meet in a peer editing group, present their Civics Engagement draft, and share feedback. Students will then present their Civics Engagement Project orally to the class. This is a requirement of Grade 11.

### **World History – College Preparatory II (Grade 11)**

This is a college preparatory course. Students will learn about the following topics throughout the school year: Absolute power, political revolutions, and the growth of nation states, c. 1700–1900, The Agricultural and Industrial Revolutions in Europe and social and political reactions in Europe, The global effects of 19th-century imperialism, The Great Wars, 1914–1945, The Cold War Era, 1945–1991, The era of globalization 1991–present, and The politics of difference among people: conflicts, genocide, and terrorism. Students will be expected to finalize and present their Civics Engagement Project during this course. Finally, students will learn about the current political, ethnic, and religious conflicts in many parts of the world. Students will learn to respond appropriately to the essay and open response questions. Grade 11 students will meet in a peer editing group, present their Civics Engagement draft, and share feedback. Students will then present their Civics Engagement Project orally to the class. This is a requirement of Grade 11.

### **United Nations - Honors (Grade 12)**

This advanced college preparatory course offers students an in depth study of current world issues, the structure of the United Nations, and the role the United Nations plays in international politics. During classroom debates, students will take on the role of foreign diplomats striving to find solutions to complex international situations. Students will work together, through debate and negotiation, to pass resolutions on selected topics. Students will learn parliamentary procedure, negotiation skills, and strategies for effective public speaking. Students will be expected to complete significant research and demonstrate understanding through the writing of position papers. In addition, students will prepare for participation in several debate competitions in the spring. A History department recommendation is required for the selection of this course.

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### **United Nations – College Preparatory I (Grade 12)**

This is an accelerated college preparatory course. This course examines the structure of the United Nations, its role in international politics and the changing dynamics of the United Nations since its creation. In this class, students will develop skills in research, public speaking, and negotiation. Students in this class will gain an understanding of parliamentary procedure and current world issues by taking part in classroom debates. In addition, students will prepare for participation in several debate competitions in the spring.

### **American Government – Honors (Grade 12)**

This is an advanced preparatory course that provides a framework for understanding the purposes, principles, and practices of the three branches of government established by founding-era documents and many other primary source documents throughout United States History. Students will analyze the formation, concepts, and components of the United States Constitution. Students will interpret Primary Source Documents and events associated with the main ideas of a free democratic society while understanding the basic concepts of democratic thought. Students will also analyze current event issues about government, politics, civil rights, civil liberties, citizenship, and interactions between the United States and other nations. To increase comprehension students will be expected to demonstrate strong analytical, writing, reading, and critical thinking skills. A History department recommendation is required for the selection of this course.

### **American Government – College Preparatory I (Grade 12)**

This is an accelerated college preparatory course. This course provides a framework for understanding the purposes, principles, and practices of American government as established by the United States Constitution. Students are expected to understand their rights, responsibilities and duties, as citizens and how to exercise these rights, responsibilities and duties, in local, state, and national government.

### **American Government – College Preparatory II (Grade 12)**

This is a college preparatory course. This course provides a framework for understanding the purposes, principles, and practices of American government as established by the United States Constitution. Students are expected to understand their rights, responsibilities and duties, as citizens and how to exercise these rights, responsibilities, duties, in local, state, and national government.

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## Academic Curriculum

### Mathematics Courses

#### **Algebra 1/Geometry – Honors (Grade 9)**

This advanced college preparatory course provides students with the study of language and theory of symbols and sets, variables, properties of real numbers, and operations with monomial equations. The study of linear equations and inequalities, as well as systems of equations in one and two variables, are integrated within the course. Students will interpret and build functions. Also included is a study of plane geometry based on the concepts of lines and angles. Preserving congruence through rigid motions will also be explored. A survey of probability and statistics is also incorporated within this course. This course is designed for students who plan to continue their education beyond the secondary level.

#### **Algebra 1/Geometry – College Preparatory I (Grade 9)**

This accelerated college preparatory course provides students with the study of language and theory of symbols and sets, variables, properties of real numbers, and operations with monomial equations. The study of linear equations and inequalities as well as systems of equations in one and two variables are integrated within the course. Students will interpret and build functions. Also included is a study of plane geometry based on the concepts of lines and angles. Preserving congruence through rigid motions will also be explored. A survey of probability and statistics is also incorporated within this course. This course is designed for students who plan to continue their education beyond the secondary level.

#### **Algebra 1/Geometry – College Preparatory II (Grade 9)**

This college preparatory course provides students with the study of language and theory of symbols and sets, variables, properties of real numbers, and operations with monomial equations. The study of linear equations and inequalities as well as systems of equations in one and two variables are integrated within the course. Students will interpret and build functions. Also included is a study of plane geometry based on the concepts of lines and angles. Preserving congruence through rigid motions will also be explored. A survey of probability and statistics is also incorporated within this course.

#### **Algebra 2/Geometry – Honors (Grade 10)**

This advanced college preparatory course is designed for students who have a mastery of Algebra I skills and knowledge. The course focus is on the application of algebraic concepts, quadratic formulas, complex numbers, radicals, rational expressions, and sequences and series. There is a concentration on quadratic and polynomial equations and inequalities. This course will also further explore geometry topics including midsegments of triangles, an exploration of right triangles and their properties, quadrilaterals, circles, measurement and trigonometry. **A math department recommendation is required for this course.**

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## **Algebra 2/Geometry – College Preparatory I (Grade 10)**

This accelerated college preparatory course provides students with the mathematical background necessary to apply algebraic concepts to specific trade areas. This course focuses on geometry principles, radicals, rational expressions, polynomials, and complex numbers. There is a concentration on applications of quadratic equations, polynomial equations, and inequalities. Students will interpret and build functions. This course also incorporates the study of plane, solid and analytic geometry based on the concepts of lines and angles, areas of polygons, congruency, similarity, circles, proportion line segments, pyramids, cylinders, cones and spheres. The analytical process and problem-solving skills are developed through the study of logic, visualization and deductive reasoning. Real-world applications are stressed.

## **Algebra 2/Geometry – College Preparatory II (Grade 10)**

This college preparatory course provides students with the mathematical background necessary to apply algebraic concepts to specific trade areas. This course focuses on geometry principles, radicals, rational expressions, polynomials, and complex numbers. There is a concentration on applications of quadratic equations, polynomial equations, and inequalities. Students will interpret and build functions. This course also incorporates the study of plane, solid and analytic geometry based on the concepts of lines and angles, areas of polygons, congruency, similarity, circles, proportion line segments, pyramids, cylinders, cones and spheres. The analytical process and problem-solving skills are developed through the study of logic, visualization and deductive reasoning. Real-world applications are stressed.

## **Algebra III - Honors (Grade 11)**

This advanced college preparatory course is designed for students to integrate and apply the mathematics they have learned from their earlier courses. Instructional time focuses on applying methods from probability and statistics to draw inferences and conclusions from data and expands understanding of functions to include polynomial, rational, and radical functions. Students will also expand their knowledge of right triangle trigonometry to include general triangles and consolidate functions and geometry to create models and solve contextual problems. A significant focus of this course will include advanced algebra topics including complex numbers, rational functions, exponential functions, and logarithms. Complementing the content standards, students enrolled in Algebra III are expected to meet the Standards for Mathematical Practice so that they increasingly engage with the subject matter as they develop their mathematical expertise and learn to hone their problem-solving skills for career success. This course is designed for students who plan to continue their education beyond the secondary level. **A math department recommendation is required for this course.**

## **Algebra III - College Preparatory I (Grade 11)**

This accelerated college preparatory course is designed for students to integrate and apply the mathematics they have learned from their earlier courses. Instructional time focuses on applying methods from probability and statistics to draw inferences and conclusions from data and expands understanding of functions to include polynomial, rational, and radical functions. Students will also expand their knowledge of right triangle trigonometry to include general triangles and consolidate functions and geometry to create models and solve contextual problems. Complementing the content standards, students enrolled in Algebra III are expected to meet the Standards for Mathematical Practice so that they increasingly engage with the subject matter as they develop their mathematical expertise and learn to hone their problem-solving skills for career success. This course is designed for students who plan to continue their education beyond the secondary level.

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### **Algebra III - College Preparatory II (Grade 11)**

This college preparatory course is designed for students to integrate and apply the mathematics they have learned from their earlier courses. Instructional time focuses on applying methods from probability and statistics to draw inferences and conclusions from data and expands understanding of functions to include polynomial, rational, and radical functions. Students will also expand their knowledge of right triangle trigonometry to include general triangles and consolidate functions and geometry to create models and solve contextual problems. Complementing the content standards, students enrolled in Algebra III are expected to meet the Standards for Mathematical Practice so that they increasingly engage with the subject matter as they develop their mathematical expertise and learn to hone their problem-solving skills for career success.

### **Pre-Calculus – Honors (Grades 11 & 12)**

This advanced college preparatory course combines the trigonometric, geometric, and algebraic techniques needed to prepare students for the study of calculus, and strengthens students' conceptual understanding of problems and mathematical reasoning in solving problems. Facility with these topics is especially important for students intending to study calculus, physics, and other sciences, and/or engineering in college. Students will apply technology, modeling, and problem-solving skills to the study of trigonometric and circular functions, identities and inverses, and their applications, including the study of polar coordinates and complex numbers. Vectors in two and three dimensions are studied and applied. Problem simulations are explored in multiple representations—algebraic, graphic, and numeric. Quadratic relations are represented in polar, rectangular, and parametric forms. The concept of limit is applied to rational functions and to discrete functions such as infinite sequences and series. The formal definition of limit is applied to proofs of the continuity of functions and provides a bridge to calculus.

**Pre-requisite: Honors Algebra 2/Geometry or Department Recommendation**

### **Advanced Placement - AP Calculus AB (Grade 12)**

This Advanced Placement course is designed to help students understand and apply the three big ideas of AB Calculus: limits, derivatives, and integrals and the Fundamental Theorem of Calculus. Embedded throughout the big ideas are the mathematical practices for AP Calculus: reasoning with definitions and theorems, connecting concepts, implementing algebraic/computational processes, connecting multiple representations, building notational fluency, and communicating mathematics orally and in well-written sentences.

**Requirements:** All students are required to complete summer work reviewing precalculus and Algebra 2 concepts prior to entry in the course. Students will be provided with and expected to regularly use a school issued TI-83 graphing calculator. **Pre-requisites: Honors Pre-Calculus**

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### **Statistics - Honors (Grade 12)**

This advanced math course focuses on the skills and knowledge necessary to collect, analyze, and draw conclusions from data. The course will present statistical methods with a focus on the suitability of the method as well as an understanding of the result. Students will explore the uncertainty of life events through probability and use real-world applications to analyze decisions. This math course emphasizes interpretation and requires higher level thinking skills. **A math department recommendation is required for this course.**

### **Discrete Mathematics and Applications – College Preparatory I (Grade 12)**

This accelerated college preparatory course provides students the opportunity to study a variety of topics in the field of Discrete Mathematics. Students will use models to interpret data, make inferences, and solve real-world problems. Modeling and applications are an integral part of this course, linking math to everyday life and informing the decision-making process. Topics include graph theory, combinatorics, arithmetic, and geometric growth, statistical modeling, probability, voting theory, finance, and more.

### **Discrete Mathematics and Applications – College Preparatory II (Grade 12)**

This college preparatory course provides students the opportunity to study a variety of topics in the field of Discrete Mathematics. Students will use models to interpret data, make inferences, and solve real-world problems. Modeling and applications are an integral part of this course, linking math to everyday life and informing the decision-making process. Topics include graph theory, combinatorics, arithmetic, and geometric growth, statistical modeling, probability, voting theory, finance, and more.

### **Economic Principles and Statistical Analysis – College Preparatory II (Grade 12)**

This college preparatory course is a building block for learners in the fields of finance including business, marketing, and accounting, as well as social sciences, health sciences, and mathematics. This course enables students to broaden their understanding of mathematics as a problem-solving tool in the real world by focusing on both personal and business related finances. The course will also acquaint students with the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The students work on projects involving analysis of real world data. Ideas and computations presented in this class have immediate links and connections to actual events. Through applications in statistical analysis, the students are able to build interdisciplinary connections with other subjects and with their world outside of school.

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## Academic Curriculum

### Science Courses

#### **Biology – Honors (Grade 9)**

This advanced college preparatory course allows students to learn about the chemistry of life, cell structure and function, genetics, ecology, evolution, and human body systems. Students will participate in scientific research and writing, discussion-based lectures, demonstrations, and laboratory experiments to prepare for the MCAS science test. This course provides a rigorous academic challenge. **A Guidance Department recommendation based upon academic achievement is required for this course.**

#### **Biology – College Preparatory I (Grade 9)**

This accelerated college preparatory course allows students to learn about the chemistry of life, cell structure and function, genetics, ecology, evolution, and human body systems. Students will participate in discussion-based lectures, demonstrations, and laboratory experiments to prepare for the MCAS science test. This course provides a rigorous academic challenge.

#### **Biology – College Preparatory II (Grade 9)**

This college preparatory course allows students to learn about the chemistry of life, cell structure and function, genetics, ecology, evolution, and human body systems. Students will participate in discussion-based lectures, demonstrations, modeling activities, and laboratory experiments to prepare for the MCAS science test.

#### **Chemistry – Honors (Grade 10)**

This advanced college preparatory course provides an in-depth study of matter and its interactions. Major emphasis is placed on the chemical and physical properties of elements, compounds, and mixtures, the periodic table, gas laws, and stoichiometry. The structure of matter, including the atom, ionic substances, and molecular compounds are studied. Research topics and laboratory experiences are explored, and new discoveries are taught. The relevance of chemistry to industry and society is discussed. **A science department recommendation for this course is required.**

#### **Chemistry – College Preparatory I (Grade 10)**

This accelerated college preparatory course focuses on an in-depth study of matter. Major emphasis is on chemical and physical properties of elements, compounds and mixtures, the periodic table, gas laws, and stoichiometry. The structure of matter, including the atom, ionic substances and molecular compounds is studied. Research topics and laboratory experiences are explored and new discoveries are taught. The relevance of chemistry to industry and society is explored.

#### **Chemistry – College Preparatory II (Grade 10)**

This college preparatory course focuses on the fundamental concepts of matter. Instructional focus is on chemical and physical properties of elements, compounds and mixtures, the periodic table, and stoichiometry. The structure of matter, including the atom, ionic substances and molecular compounds is studied. Research topics and laboratory experiences are explored and new discoveries are taught. The relevance of chemistry to industry and society is explored.

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### **Environmental Science – College Preparatory I (Grade 10)**

This accelerated college preparatory course is for the student who is interested in understanding the role people play in shaping and changing their environment. Students will learn about our climate, the current pattern of climate change, their carbon footprint, and how one can reduce their negative impact on the environment. Students will investigate the differences between non-renewable and renewable energy sources, including the future of energy. In addition, students will study invasive species and their impact on the environment, specifically focusing on their impact in the United States. Through activities including lectures, experiments, labs, research, and written reports, students will develop an understanding of what they can do to maintain the delicate balance of nature while also understanding the effects of natural and unnatural processes and the interaction that these processes have on both the environment and the planet overall.

### **Environmental Science – College Preparatory II (Grade 10)**

This college preparatory course is for the student who is interested in understanding the role people play in shaping and changing their environment. Students will learn about our climate, the current pattern of climate change, their carbon footprint, and how one can reduce their negative impact on the environment. Students will investigate the differences between non-renewable and renewable energy sources, including the future of energy. In addition, students will study invasive species and their impact on the environment, specifically focusing on their impact in the United States. Through activities including lectures, experiments, labs, research, and written reports, students will develop an understanding of what they can do to maintain the delicate balance of nature.

### **Physics – Honors (Grade 11)**

This advanced college preparatory course provides an in-depth study of energy and the laws of motion that govern all objects in the universe (Newtonian Dynamics). The study of physics ranges from the understanding of units of measurement to identifying and measuring motion, force, and various forms of energy. During a double period, students will learn how to solve advanced physics problems i.e., Einstein's Theory of Relativity, Bernoulli's and Archimedes' principles and nuclear theory. The student will integrate their understanding of concepts of motion, force, and energy in the laboratory. **A science department recommendation is required for this course.**

### **Physics – College Preparatory I (Grade 11)**

This accelerated college preparatory course provides an in-depth study of energy and the laws of motion that govern all objects in the universe (Newtonian Dynamics). The study of physics ranges from the understanding of basic units of measurement to identifying and measuring motion (speed, velocity, and acceleration), force, and various forms of energy. During a double period, students will learn how to solve algebra based physics problems that are found in everyday life. Students will also apply their understanding of concepts of motion, force, and energy in the laboratory.

### **Physics – College Preparatory II (Grade 11)**

This college preparatory course is designed to integrate the principles of physics and chemistry with laboratory experimentation and problem-solving applications. Units of study include matter identification and classification as well as phase changes, basic units of measurement, graphical analysis of motion and forces and differentiating forms of energy and how machines are designed to use mechanical advantage, undertaking how to read and use the periodic table of elements, and how to understand and demonstrate chemical reactions. During a double period, students will learn how to solve physics problems that are found in everyday life.

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### **Anatomy and Physiology – Honors (Grade 11)**

This advanced college preparatory course is designed to provide the student with in-depth essential information regarding the human body's structure and function. Examined are levels of organization, necessary life functions, and the language of anatomy. Cells, tissues, and body membranes are examined under a microscope. Human body systems explored include the musculoskeletal, nervous, special senses, endocrine, blood, circulatory, respiratory, digestive, excretory, lymph, and reproductive systems, and how the systems interact to maintain homeostasis. The developmental aspects of body systems are explored. Students will participate in labs, content knowledge, terminology, and research writing to prepare for a career in health occupations. **A science department recommendation is required for this course.**

### **Anatomy and Physiology – College Preparatory I (Grade 11)**

This accelerated college preparatory course is designed to provide the students with in-depth, essential information regarding the human body's structure and function. Students will be introduced to the specific organization of cells, tissues, organs, and organ systems. Human body systems that will be explored during this course include: the skeletomuscular, nervous, special senses, endocrine, blood, circulatory, respiratory, digestive, excretory, lymph, and reproductive systems. In addition to the structure and function of these systems, students will learn how these organ systems interact to maintain homeostasis within the human body. This double period course will include lectures, discussions, labs, and activities to reinforce content knowledge and terminology. The specific organization of cells, tissues, organs, and systems, along with their inter-relationships, is explored. Correct terminology and practical application of knowledge are emphasized.

### **Anatomy and Physiology – College Preparatory II (Grade 11)**

This college preparatory course is designed to provide the students with essential information regarding the human body's structure and function. Students will be introduced to the specific organization of cells, tissues, organs, and organ systems. Human body systems that will be explored during this course include: the skeletomuscular, nervous, special senses, endocrine, blood, circulatory, respiratory, digestive, excretory, lymph, and reproductive systems. In addition to the structure and function of these systems, students will learn how these organ systems interact to maintain homeostasis within the human body. This double period course will include lectures, discussions, labs, and activities to reinforce content knowledge and terminology. Correct terminology and practical application of knowledge are emphasized.

### **Environmental Science – Honors (Grade 12)**

This in-depth, accelerated college preparatory course is for the student who is interested in understanding the role people play in shaping and changing their environment. Students will learn about our climate, the current pattern of climate change, their carbon footprint, and how one can reduce their negative impact on the environment. Students will investigate the differences between non-renewable and renewable energy sources, including the future of energy. In addition, students will study invasive species and their impact on the environment, specifically focusing on their impact in the United States. Through activities including lectures, experiments, labs, research, and written reports, students will develop an understanding of what they can do to maintain the delicate balance of nature while also understanding the effects of natural and unnatural processes and the interaction that these processes have on both the environment and the planet overall. The course will focus on the "real science" behind environmental problems and issues, and it will be recommended that students successfully complete at least two years of high school laboratory science (one year of biology and one year of chemistry) before enrolling in this rigorous course. Laboratory and field study is envisioned to be an important element of the course.

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### **Forensic/Biotechnology – Honors (Grade 12)**

This advanced college preparatory course encompasses a comprehensive study of the principles of Forensic Science and Biotechnology. The major topics will include the study of DNA as a diagnostic tool, forensic science, genetic engineering, cloning, and ethical conduct in biotechnology. Students will utilize methods of investigation, observation and deductive reasoning to apply Forensic Science and Biotechnology to a laboratory experience. Topics include: Crime Scene Investigation, Physical Evidence, Serology, Toxicology, Fire Science, Anthropology, Computer Forensics, DNA Science, Microbiology, Medical Biotechnology, Industrial Biotechnology, Agricultural Biotechnology, and Environmental Biotechnology. The primary emphasis will be to develop understanding of these concepts through hands-on field inquiry. In addition to lab reports, research papers and investigative reports will be assigned throughout this course. **A science department recommendation for this course is required.**

### **Forensic/Biotechnology – College Preparatory I (Grade 12)**

This accelerated college preparatory course encompasses a comprehensive study of the principles of Forensic Science and Biotechnology. The major topics will include the study of DNA as a diagnostic tool, forensic science, genetic engineering, cloning, and ethical conduct in biotechnology. Students will utilize methods of investigation, observation and deductive reasoning to apply Forensic Science and Biotechnology to a laboratory experience. Topics include: Crime Scene Investigation, Physical Evidence, Serology, Toxicology, Fire Science, Anthropology, Computer Forensics, DNA Science, Microbiology, Medical Biotechnology, Industrial Biotechnology, Agricultural Biotechnology, and Environmental Biotechnology. The primary emphasis will be to develop understanding of these concepts through hands-on field inquiry. In addition to lab reports, research papers and investigative reports will be assigned throughout this course.

### **Forensic/Biotechnology – College Preparatory II (Grade 12)**

This college preparatory course encompasses a comprehensive study of the principles of Forensic Science and Biotechnology. The major topics will include the study of DNA as a diagnostic tool, forensic science, genetic engineering, cloning, and ethical conduct in biotechnology. Students will utilize methods of investigation, observation and deductive reasoning to apply Forensic Science and Biotechnology to a laboratory experience. Topics include: Crime Scene Investigation, Physical Evidence, Serology, Toxicology, Fire Science, Anthropology, Computer Forensics, DNA Science, Microbiology, Medical Biotechnology, Industrial Biotechnology, Agricultural Biotechnology, and Environmental Biotechnology. The primary emphasis will be to develop understanding of these concepts through hands-on field inquiry. In addition to lab reports, research papers and investigative reports will be assigned throughout this course.

### **Kinesiology and Nutrition – Honors (Grade 12)**

This advanced college preparatory course is designed to introduce students to the structure and performance of the human body in the context of sports, exercise, and nutrition. Goals of this course include an awareness of how exercise, nutrition and sport specific training can positively affect health, fitness, athletic performance, and the well-being of the human body. Topics that will be covered include analysis of the food pyramid, diet composition, diet and exercise relationships, digestion, and the role nutrients play in how the cardiovascular, respiratory and muscular systems function. Through activities including lectures, experiments, labs, research, and written reports, students will possess knowledge concerning the function and interconnectedness of diet, nutrition, lifestyle, and the major organ systems of the human body in relation to physical fitness. **A science department recommendation for this course is required.**

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### **Kinesiology and Nutrition – College Preparatory I (Grade 12)**

This accelerated college preparatory course is designed to introduce students to the structure and performance of the human body in the context of sports, exercise, and nutrition. Goals of this course include an awareness of how exercise, nutrition and sport specific training can positively affect health, fitness, athletic performance, and the well-being of the human body. Topics that will be covered include analysis of the food pyramid, diet composition, diet and exercise relationships, digestion, and the role nutrients play in how the cardiovascular, respiratory and muscular systems function. Through activities including lectures, experiments, labs, research, and written reports, students will possess knowledge concerning the function and interconnectedness of diet, nutrition, lifestyle, and the major organ systems of the human body in relation to physical fitness.

### **Kinesiology and Nutrition – College Preparatory II (Grade 12)**

This college preparatory course is designed to introduce students to the structure and performance of the human body in the context of sports, exercise, and nutrition. Goals of this course include an awareness of how exercise, nutrition and sport specific training can positively affect health, fitness, athletic performance, and the well-being of the human body. Topics that will be covered include analysis of the food pyramid, diet composition, diet and exercise relationships, digestion, and the role nutrients play in how the cardiovascular, respiratory and muscular systems function. Through activities including lectures, experiments, labs, research, and written reports, students will possess knowledge concerning the function and interconnectedness of diet, nutrition, lifestyle, and the major organ systems of the human body in relation to physical fitness.

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## **Academic Curriculum**

### **World Language**

*Students are encouraged to enroll in a World Language since it is a requirement for many colleges.*

#### **Spanish 1 – College Preparatory I**

This college preparatory course is designed to introduce students to basic speech and expression in Spanish that will provide a foundation for the development of communication skills. Students will use strategies to understand and interpret the target language and foster linguistic and cultural proficiency.

#### **Spanish 2 – College Preparatory I**

This college preparatory course builds upon basic skills introduced in Spanish 1 in the areas of listening, speaking, reading, and writing. The class is conducted in Spanish, as much as possible. Emphasis is placed on the development of communication skills by reinforcing and expanding Spanish expressions in discussions and dialogues. Grammar skills are expanded through reading and writing assignments. Students will continue to develop strategies to understand and interpret the target language and foster linguistic and cultural proficiency.

#### **Spanish 3 – College Preparatory I**

This college preparatory course is designed to build upon previously acquired speaking, listening, writing, and comprehension skills developed in Spanish 1 and Spanish 2. Oral expression is an integral component of this course, along with a more intensive vocabulary and grammar study. Emphasis is placed on interacting and negotiating meaning in spoken or written conversations. There is attention to cultural competency and understanding through Spanish literary contributions and a focus on connections and differences of their local and global communities. A teacher recommendation is required.

#### **Spanish 4 – College Preparatory I**

This is an accelerated college preparatory course. Students will study more advanced grammar with an emphasis on reading and writing. The literature studied will be appropriate to the previous language experience of the students. Students will complete projects that connect with other disciplines, cultures, and different perspectives. A teacher recommendation is required.

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# Academic Curriculum

## Elective Course Information

All half- year elective course offerings will be paired together and offered at particular points within the school year.

- Semester I - Terms one and two
- Semester II - Terms three and four

Students in grade 11 can either choose two half-year electives or one full-year elective

Students in grade 12 can pick two half-year electives **and** one full-year elective **or** they can opt to take 4 paired half-year electives.

## Half-Year Elective Courses

### Community Arts Workshop - College Preparatory II - Semester 1

In this course students will be engaged in the process of working collaboratively to create a large-scale, sculptural, parade float from concept to completion. This course offers a foundation of fundamental art concepts, such as the Elements of Art, as well as the opportunity to work with a wide range of two and three-dimensional materials, such as paint, wood, metal, plaster, electronics and other mixed media. Emphasis will be placed on problem-solving skills, craftsmanship, and teamwork, as Whittier students proudly showcase their skills and creativity to their community.

### Introduction to Painting & Drawing - College Preparatory II - Semester II

In this introductory course, students will explore the fundamentals of drawing and painting tools and techniques. Students will demonstrate their understanding of composition through a mixture of traditional fine arts materials such as graphite, ink, charcoal, watercolor and acrylic paints. A wide range of subject matters may be investigated as students work to create highly resolved, personally relevant artworks.

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### Financial Management & Literacy - College Preparatory II - Semester 1

This personal financial literacy course is designed to alert, inform, and educate students in concepts of personal finance and money management. Students will begin to develop the skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment, and effective money management. Through individual, team activities, and semester-long projects, students will learn strategies for saving and investing, making major purchasing decisions, protecting themselves against risk and financial loss and how to navigate the financial services industry. Students learn how to make informed financial decisions related to budgeting, banking, credit, insurance, taxes and career exploration. This course is a comprehensive study of personal financial literacy designed for all students, and is aligned to the national standards for personal financial literacy and the Massachusetts Curriculum Frameworks.

### Management & Entrepreneurship - College Preparatory II - Semester II

This course will provide students with a thorough understanding of what it takes to be both a manager and an entrepreneur by providing a strong focus on the leadership skills essential in all future career choices. Throughout this course, students will investigate the concepts, tools, and practices of management and entrepreneurship. Students will gain exposure to the different types of business ownership, banking, credit, marketing, and technology, and will acquire the 21st century skills necessary to be successful in today's workforce. This course will teach students to state their business passion in practical terms with methods for analyzing their market and competition, setting achievable goals, and focusing on a strategic business plan. The course will be heavily focused on real-world application of the material and will incorporate projects where students can apply their content while utilizing critical thinking, creativity, collaboration, problem solving, and communication. Students will become aware of the importance of a well-trained manager, and will be better prepared to be successful participants in the business of our economy. At the end of this course, students will be able to write and present a business plan.

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## **Digital Literacy - College Preparatory II - Semester 1**

This course will provide students with an understanding of principles of computer science, digital computing, and programming. Students will learn how to use digital tools for research, collaboration, finding patterns in data, and interpreting simulations. Through this course students will understand safety and security concepts, recovery strategies, and how to deal with cyberbullying and peer pressure. Students will become knowledgeable about the role technology plays in various fields of work, while developing an appreciation for the capabilities and capacities of technology in civic, college, and career contexts which will enable them to better plan for their careers innovative jobs of the twenty-first century. Students will work independently and collaboratively to refine their skills in differentiating problems or sub-problems that are best solved by computing systems or digital tools and those best solved by humans. This course will foster student curiosity and mastery through hands-on experiences while helping them to learn to use high-and low-tech tools to manipulate technology for living, learning, and working.

## **Media Arts - College Preparatory II - Semester II**

In this college preparatory course, students will study the various aspects of media arts. Students will learn and demonstrate an understanding of materials, processes, tools, media, techniques and available technology. They will discover how to use art elements, principles and images to communicate their ideas in a variety of visual/digital forms. Students will also develop their ability to analyze, cut and reassemble scenes based on camera angle, sound and flow. Using specialized software, students explore each step of the non-linear editing process, including logging and organizing footage, basic editing techniques, trimming, title keying, motion effects, audio mixing, media file management and exporting digital file formats.

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## **Academic Curriculum**

### **Full-Year Elective Courses**

#### **Studio Art and Aesthetics - College Preparatory II**

This comprehensive course offers a strong foundation in both three and two-dimensional art-making. Senior students will experience collaborative, cross-disciplinary design challenges during the first semester, and focus on personal artworks for the second half of the year. All levels of experience are welcome, from the beginner to students wishing to develop an art portfolio. Emphasis will be placed on process, experimentation and critical thinking.

#### **Criminal Justice - College Preparatory I**

This accelerated college preparatory course will provide an overview of the American Criminal Justice System. Students will learn a broad range of the functions and operations while gaining a deep understanding of law enforcement as it pertains to our society. Students will be presented with various aspects of the law and the role it plays in our lives. Utilizing criminal justice statistics, current conceptual theories, and a wide array of primary sources, students will explore the history of criminology and how criminologists influence the world around us. An emphasis will be placed on the police, courts and corrections, juvenile justice, case law, probation, parole, punishment, the death penalty, and landmark Supreme Court cases.

#### **Pre-Engineering – College Preparatory I**

This accelerated college preparatory course is designed to introduce students to the field of engineering. Students explore a broad range of engineering topics including mechanisms, the strength of structure and materials, and automation, and then they apply what they know to take on challenges in the classroom labs. Previous physics, algebra, and geometry coursework is recommended for this course.

#### **Psychology – College Preparatory I**

This accelerated college preparatory course explores the basic principles of psychology and covers such topics as psychological development, theories of personality, the principles of learning, coping with frustration and the causes and treatment of personality disorders.

#### **Small Engine/Appliance Solutions & Repair – College Preparatory I**

This course will train students in the basics of repairing small engines, outdoor equipment, and small appliances. Students will learn the components and systems that make up a small engine. Students will learn 4-stroke/2-stroke engine operation, maintenance procedures, electrical circuits, fuel systems, ignition systems, diagnostics, and repair. Throughout the year students will troubleshoot and rebuild various small engines. This class includes instruction and demonstration with hands-on practice repairing small engines. Students will review the cycles of engines, including carburetion, ignition, charging system, valves, blade sharpening, and balancing. This hands-on introductory course combines theory with practical experience to provide you with the necessary skills to perform maintenance, tune-up, and repair of 1 or 2-cylinder gas-powered engines. Emphasis is placed on basic engine systems, special tools and testing equipment.

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## **Academic Curriculum**

### **Health and Physical Education**

#### **Occupational Health & Physical Education (Grades 9 -12) – Required Course**

Occupation Health/PE is designed to develop skills and competencies in occupational health, personal fitness, and lifelong health and wellness. Programs are tailored to the needs of individual students as well as the occupational requirements of each vocational shop. Through team sports students are developing collaboration skills while moving and engaging in physical activities. Health education will focus on various topics to encourage students to make safe, responsible decisions concerning their health. Topics will include substance use and abuse, mental and emotional health, and human relationships. The goal of the program is to support students in developing a healthy lifestyle. Occupational Health and Physical Education will take place during vocational cycles with their vocational peers, however, it is graded separately from the vocational/technical grade. The course curriculum is in alignment with the Massachusetts Comprehensive Health Frameworks and focuses on the student's development of their Social/Emotional skills in order to help foster a safe and positive school climate.

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## Early College Pathway

### Early College Pathway (GRADES 11 & 12) – Advanced College Course Level *by Application only*

Whittier Regional Vocational Technical High School has partnered with Northern Essex Community College (NECC) to offer college credit courses to juniors and seniors. Students earn Whittier credit and NECC college credit for the courses they take as part of the Early College Program. Courses are taken at the high school during a certain designated academic block.

The scope of courses will include 4 - 6 courses. Students will take one course in the Fall semester of 11th grade and one course in the Spring semester of 11th grade with the option of taking a course in the summer between 11th and 12th grade. Students take one course in the Fall semester of 12th grade and one course in the Spring semester of 12th grade with the option of taking an additional course of their choosing during the Spring of their 12th-grade year. Students may enter into the Early College Program during the start of their junior year or the start of their senior year.

Proposed Schedule:

Grade Level/EC Program Year	Fall Semester	Spring Semester	Summer Session I
<b>10th</b>		Assessment/Evaluation of program readiness	Transitional student experience (non-credit)
<b>11th/Year 1</b>	English Composition I ENG 101 (3 credits)  <i>*Course is <b>FREE</b> with early college designation</i>	Intro to Psychology PSY 101 (3 credits)  <i>*Course is <b>FREE</b> with early college designation</i>	Optional Course of Student's Choice (3 credits)  <i>*Student/family is responsible for paying for this course</i>
<b>12th/Year 2</b>	English Composition II ENG 102 (3 credits)  <i>*Course is <b>FREE</b> with early college designation</i>	Intro to Sociology SOC 101 (3 credits)  Optional Course of Student's Choice (3 credits)  <i>*Courses are <b>FREE</b> with early college designation</i>	

Above schedule is according to NECC scheduling/staffing and student demand. Additional or different coursework may be available.

The early college courses as specified above will replace traditional subject area courses that align with that given subject area. For example, a student's traditional English class will be replaced by English Composition I and Introduction to Psychology since both courses are considered writing-intensive. Similarly, a student's traditional

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English class will be replaced by English Composition II and Introduction to Sociology. In addition to Introduction to Sociology, students have the option to take an additional college course of their choice in the Spring Semester of 12th grade/Year 2.

The Early College Program is mapped over two academic years with a student taking one course per semester (with the exception of the Spring of 12th grade/Year 2, where they can take two college courses in one semester). Students have the ability to enter the early college track at the start of their junior year or at the start of their senior year. Early College students are supported by both a Northern Essex Community College faculty member as well as a Whittier support teacher.

Information about the early college program is shared with all students throughout the academic year. Students should connect with their guidance counselor directly if they have specific questions about the Early College Program.

### **Eligibility**

Student eligibility to participate in the WTHS program is determined by the administrative team based on consideration of the following selection criteria:

- Record of good attendance within the current academic year;
- Mid-Year Exam Review reviewed by Whittier Teacher Team and NECC Faculty Team
- Recommendation from current English and/or Math Teacher evaluating mutually agreed upon college readiness skills to be reviewed by NECC; and
- Current academic success in pre-requisite high school course work in the content area they will pursue.

**Cost: \*Each year grant funds are identified to support the program with the goal of no cost to the student (with the exception of the summer course option between 11th grade and 12th grade).**

Any student that may not have been academically prepared to join the 10th grade Early College cohort will have an opportunity to join in 11th or 12th grade. These students may request a review of attendance, an interview, and/or any of the criteria listed above. All criteria will be evaluated for the student's current term.

### **College Credits**

Students will earn 3 college credits for each class they successfully complete through Northern Essex Community College. These courses are generally accepted at Massachusetts Community Colleges, State Colleges/Universities, and some private schools. Students should contact their intended schools to discuss course transfers. Students planning to attend NECC will have these on their NECC transcript already.

### **Application**

Students will register for the program in the spring of grade 10. Students will be evaluated based on the following:

- Mid-Year Exam
- Attendance
- Current academic performance in the college subject area (English)

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## Asynchronous Advanced Course Work

### Grade 11 - STEM Advanced Placement® Access Expansion Opportunity

The Massachusetts Department of Elementary and Secondary Education (DESE) is offering Science, Technology, Engineering, and Math (STEM) Advanced Placement (AP) courses via a Massachusetts-based nonprofit Virtual High School (VHS). VHS is a proven program that has provided high quality online AP courses to Massachusetts schools since 2003. Students will log in daily during their elective period to take part in asynchronous online discussion and group-based activities. All courses meet the College Board lab requirements with approved lab kits included. In order to take one of these courses, students must commit to not only completing work and attending class sessions during their vocational week, but they will also be required to take the AP exam for their selected course. Participation in one of these courses will count towards elective credit. **A teacher recommendation is required for this course.**

#### Student expectations for this programs:

Before starting the course:

- Complete the VHS Learning online Student Orientation
- Complete required AP summer assignments
- Attend (optional) live Summer Sessions with AP teachers

During the Course:

- Log in and complete class assignments (5 days per week)
- Review the Weekly Overview, News, Private Topic postings
- Complete Discussions and Lessons by due dates
- Attend live office hours to get real-time help from the teacher
- If struggling reach out for help

Sit for the AP exam Time Commitment:

- Most students report 10 -12 hours/week for AP courses, for 33 weeks.
- Courses are comprehensive and students are expected to keep pace with the class to ensure all material is covered by the AP exam.

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## VHS STEM AP Courses Available at Whittier Tech:

### **Advanced Placement - AP® Biology - Grade 11**

This Advanced Placement Biology course is equivalent to a one semester, college level, biological science course. The rigor of this course is consistent with colleges and universities and will prepare students for the Advanced Placement exam in May. Upon successful completion of the exam, students may receive college credit and will be well-prepared for advanced biology coursework. Additional details on this course from the College Board can be found here: [AP Biology](#).

In this course, students will explore four big ideas:

1. Evolution: The process of evolution drives the diversity and unity of life.
2. Energetics: Biological systems use energy and molecular building blocks to grow, reproduce, and maintain dynamic homeostasis.
3. Information Storage and Transmission: Living systems store, retrieve, transmit, and respond to information essential to life processes.
4. Systems Interactions: Biological systems interact, and these systems and their interactions exhibit complex properties.

Students will cultivate their understanding of biology through inquiry-based investigations as they explore topics in cell structure, function and communication, biochemistry, genetics, ecology, and interactions between systems.

This course incorporates a variety of textbook and multimedia resources and has a comprehensive lab program that meets College Board requirements. Students will perform hands-on lab work using materials from their lab kit, conduct virtual experiments, share experimental data to analyze larger data sets and participate in lab-based discussions with their peers. Students will also engage in collaborative activities, including discussions, that develop scientific literacy and connect biological principles to real-world applications and current events, in order to develop a deeper understanding of biology.

Students will be expected to enroll in My AP Classroom through their VHS Learning AP course and will be guided to complete review work in My AP Classroom throughout the year. My AP Classroom resources include AP Daily Videos and unit-based Personal Progress Checks, which include AP-style multiple choice and free response questions. Students enrolled in VHS Learning Advanced Placement courses with a passing grade are expected to take the AP Exam.

Students register for AP exams through their local school or testing site as “Exam Only” students. AP exam scores will be reported to VHS Learning through My AP Classroom; exam results will not affect the student's VHS Learning grade or future enrollment in VHS Learning courses.

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This AP course has a required summer assignment. The summer assignment is a review of prerequisite content and critical concepts students must be comfortable with before beginning the course. Students are expected to complete their summer assignment before the course begins and submit their work by the end of Week 1.

Students who register on or after September 1 will receive an extension to complete the summer assignment by the end of Week 3.

### **Prerequisites**

- One full academic year of both high school-level biology and chemistry
- In addition to the enrollment fee, this course has an AP fee of \$75 and a required lab kit fee of \$240. Lab kits shipped internationally may incur additional fees. International schools must have the ability to receive lab materials through customs
- The required summer assignment for AP® Biology can be found in our AP® Summer Work Directory.

### **Advanced Placement - AP® Computer Science Principles - Grade 11**

This Advanced Placement Computer Science Principles course is equivalent to a one semester, college level, introductory computer science course. The rigor of this course is consistent with colleges and universities and will prepare students for the Advanced Placement exam in May. Upon successful completion of the exam, students may receive college credit and will be well-prepared for advanced computer science coursework. Additional details on this course from the College Board can be found here: [AP Computer Science Principles](#).

In this course, students will explore the following big ideas:

(1) Creative Development: When developing computing innovations, developers can use a formal, iterative design process or a less rigid process of experimentation. While using either approach, developers will encounter phases of investigating and reflecting, designing, prototyping, and testing. Additionally, collaboration is an important tool at any phase of development, because considering multiple perspectives allows for improvement of innovations.

(2) Data: Data are central to computing innovations because they communicate initial conditions to programs and represent new knowledge. Computers consume data, transform data, and produce new data, allowing users to create new information or knowledge to solve problems through the interpretation of those data. Computers store data digitally, which means that the data must be manipulated in order to be presented in a useful way to the user.

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(3) Algorithms and Programming: Programmers integrate algorithms and abstraction to create programs for creative purposes and to solve problems. Using multiple program statements in a specified order, making decisions, and repeating the same process multiple times are the building blocks of programs. Incorporating elements of abstraction—by breaking problems down into interacting pieces, each with their own purpose—makes writing complex programs easier. Programmers need to think algorithmically and use abstraction to define and interpret processes that are used in a program.

(4) Computing Systems and Networks: Computer systems and networks are used to transfer data. One of the largest and most commonly used networks is the Internet. Through a series of protocols, the Internet can be used to send and receive information and ideas throughout the world. Transferring and processing information can be slow when done on a single computer, but leveraging multiple computers to do the work at the same time can significantly shorten the time it takes to complete tasks or solve problems.

(5) Impact of Computing: Computers and computing have revolutionized our lives. To use computing safely and responsibly, we need to be aware of privacy, security, and ethical issues. As programmers, we need to understand the potential impacts of our programs and be responsible for the consequences. As computer users, we need to understand any potential beneficial or harmful effects and how to protect ourselves and our privacy when using a computer.

In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. Students will investigate how the Internet works and discuss its impacts on politics, culture, and the economy. In addition, students will learn and mitigate the security risks of many computing innovations.

The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

This course incorporates a variety of textbook and multimedia resources as well as the Code.org platform. Students will spend approximately half of the course gaining programming knowledge and skills in the App Lab integrated development environment and will regularly debug and repair existing applications and design their own applications. Students will also engage in collaborative activities, including discussions, that develop computer science literacy and connect computer science principles to real-world applications and current events, in order to develop a deeper understanding of technology and its impact on society.

Students will be expected to enroll in My AP Classroom through their VHS Learning AP course and will be guided to complete review work in My AP Classroom throughout the year. My AP Classroom resources include AP Daily Videos and unit-based Personal Progress Checks, which include AP-style multiple choice and free response questions.

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Students enrolled in VHS Learning Advanced Placement courses with a passing grade are expected to take the AP Exam. Students register for AP exams through their local school or testing site as “Exam Only” students. AP exam scores will be reported to VHS Learning through My AP Classroom; exam results will not affect the student's VHS Learning grade or future enrollment in VHS Learning courses.

This AP course has a required summer assignment. The summer assignment is a review of prerequisite content and critical concepts students must be comfortable with before beginning the course. Students are expected to complete their summer assignment before the course begins and submit their work by the end of Week 1. Students who register on or after September 1 will receive an extension to complete the summer assignment by the end of Week 3.

### **Prerequisites**

- In addition to the enrollment fee, this course has an AP® fee of \$75.
- It is recommended that a student in the AP® Computer Science Principles course should have successfully completed a first-year high school algebra course with a strong foundation in basic algebraic concepts.
- The required summer assignment for AP® Computer Science Principles can be found in our AP-Summer-Work-Director

### **Advanced Placement - AP® Statistics - Grade 11**

The Advanced Placement Statistics course is equivalent to a one-semester, introductory, non-calculus-based college statistics course. The rigor of this course is consistent with colleges and universities and will prepare students for the Advanced Placement exam in May. Upon successful completion of the exam, students may receive college credit and will be well-prepared for advanced statistics coursework. Additional details on this course from the College Board can be found here: [AP Statistics](#).

In this course, students will explore three big ideas:

(1) Variation and Distribution: The distribution of measures for individuals within a sample or population describes variation. The value of a statistic varies from sample to sample. Statistical methods based on probabilistic reasoning provide the basis for shared understandings about variation and about the likelihood that variation between and among measures, samples, and populations is random or meaningful.

(2) Patterns and Uncertainty: Statistical tools allow us to represent and describe patterns in data and to classify departures from patterns. Simulation and probabilistic reasoning allow us to anticipate patterns in data and to determine the likelihood of errors in inference.

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(3) Data-Based Predictions, Decisions, and Conclusions: Data-based regression models describe relationships between variables and are a tool for making predictions for values of a response variable. Collecting data using random sampling or randomized experimental design means that findings may be generalized to the part of the population from which the selection was made. Statistical inference allows us to make data-based decisions.

Students will investigate topics such as one-variable data, two-variable data, collecting data, probability, random variables,, and probability distributions, sampling distributions, inference for categorical data: proportions, inference for quantitative data: means, inference for categorical data: chi-square, and inference for quantitative data: slopes.

This course incorporates a variety of textbook and multimedia resources including an adaptive problem set platform that provides various feedback on student assessments. Students will also engage in collaborative activities, such as simulations and discussions, and connect concepts in statistics to real-world applications and current events, in order to develop a deeper understanding of statistics in the world.

Students will be expected to enroll in My AP Classroom through their VHS Learning AP course and will be guided to complete review work in My AP Classroom throughout the year. My AP Classroom resources include AP Daily Videos and unit-based Personal Progress Checks, which include AP-style multiple choice and free response questions. Students enrolled in VHS Learning Advanced Placement courses with a passing grade are expected to take the AP Exam. Students register for AP exams through their local school or testing site as “Exam Only” students. AP exam scores will be reported to VHS Learning through My AP Classroom; exam results will not affect the student’s VHS Learning grade or future enrollment in VHS Learning courses.

This AP course has a required summer assignment. The summer assignment is a review of prerequisite content and critical concepts students must be comfortable with before beginning the course. Students are expected to complete their summer assignment before the course begins and submit their work by the end of Week 1. Students who register on or after September 1 will receive an extension to complete the summer assignment by the end of Week 3.

### **Prerequisites**

- One full year of high school Algebra 2.
- In addition to the enrollment fee, this course has an AP® fee of \$75.
- The required summer assignment for AP® Statistics can be found in our AP® Summer Work Directory.

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## **Edgenuity (GRADES 9, 10, 11, 12)**

***Course: multiple***

***Level: multiple***

***Credits: 1.25 - 5***

This Program of Studies is expanded by over 200 elective courses available in an online learning format. Whittier Regional Vocational Technical High School supplements our physical course offerings with Edgenuity's rigorous online course offerings. Through Edgenuity we are able to offer honors, AP®, and elective course work.

Edgenuity's courseware offers flexible online courses and curriculum that meets student needs while enabling them to take ownership of their learning. The curriculum is grounded in research and aligned to the Massachusetts State Standards, the Common Core, the Next Generation Science Standards, and is an approved remote learning partner of the Massachusetts DESE. Courses combine direct-instruction videos featuring expert, on-screen teachers with rigorous assignments, performance tasks, and assessments to engage students and ensure subject-area mastery. Additional work outside of the academic and/or vocational week is required for success in these online course offerings.

All classes are reflected on the official transcript and classes are weighted according to academic level. See your guidance counselor for a complete listing of the current courses available through Edgenuity and to discuss your enrollment options.

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## **Vocational/Technical Programs**

### **Exploratory (Grade 9)**

The Exploratory Program at Whittier Tech is designed to allow students to make informed decisions in choosing a vocational-technical area that they wish to pursue in grades 10, 11, and 12. The Exploratory Program provides students with experiences in career awareness by giving them an orientation to all the vocational-technical areas that Whittier Tech offers.

During the first three-quarters of grade 9, students rotate through all vocational-technical programs. This experience promotes equal opportunity and equal access for every student to all programs and encourages participation in non-traditional career choices.

Career plans will be developed for all freshmen and will be evaluated yearly. This plan will ensure that students choose career paths that match their interests, abilities, and educational goals. Various assessments are used and short and long-term goals are established.

All freshmen are issued an iPad as part of our one-to-one initiative. Using their iPad, students will complete a reflective writing piece at the end of each exploratory week. These are saved by the student and can be shared with Parents/Guardians.

All students are graded consistently in all technical programs by utilizing a Whittier Tech Exploratory Grading Rubric.

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## **Vocational/Technical Programs**

### **Cooperative Education Program (Grades 11 & 12)**

Cooperative Education provides students the opportunity to develop academic, technical, and employability skills not acquirable in a school-based setting, but acquirable in a work-based setting.

Students in good academic standing, who have demonstrated the knowledge and skills associated with two full years (the equivalent of seven terms) in their chosen technical field, are eligible for co-op employment. Through a cooperative arrangement between the school and employers, students alternate study in school with paid employment or unpaid internships in their chosen vocational-technical field. Students are evaluated weekly by their employer and a minimum 30 hours per week time sheet documentation of such is submitted to the Cooperative Education Coordinator.

Cooperative Education requires a formal agreement between the school, employer, students, and parent/guardian. Employers agree to meet all requirements of state and federal labor laws and regulations including, but not limited to, those addressing worker compensation insurance, equal employment opportunity prohibiting discrimination in hiring or employment practices and occupational safety and health, and all DESE COVID-19 Control Plans and Protocols. Employers may also be subject to CORI and fingerprinting laws per Whittier Tech School District policy.

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## Vocational/Technical Programs

### Advanced Manufacturing Technology

The **Advanced Manufacturing Technology** program combines the use of technical knowledge and hands – on experience in manufacturing of products and the proper use of precision machinery. Emphasis is placed on technical machine shop theory, knowledge and use of manual lathes, manual mills, vertical and horizontal saws, surface grinders and finishing techniques.

In addition, applied machine shop mathematics, blueprint reading, geometric dimensioning and tolerancing (GD&T), knowledge and operation of Computer Numerical Controls (CNC), Vertical Machining Centers (VMC) including 4th and 5th Axis machining, CNC Turning Centers, CNC Fanuc Wire EDM and Laser Engraving will be studied.

Practical and efficient use of MasterCam– Design, Mill, Lathe, and Wire EDM programming software will be used to complete real – world parts. Two and Three-Dimensional designs, programming and machining. Operation of Coordinate Measuring Machine (CMM) and metrology tools will be used for inspection and quality control (QC) will be covered. Overview of LEAN Manufacturing will be covered.

The use of ToolingU, LearnCNC online curriculum will be used to assist students with receiving MACWIC Level I & II (Manufacturing Advancement Center Workforce Innovation Collaborative) certification and NIMS (National Institute for Metalworking Skills) CNC Operator certification.

Students in this technical area are able to participate in the Northern Essex Community College (NECC)/Whittier Tech Advanced Manufacturing Concurrent Enrollment program. Through this program, students have the opportunity to earn college credit for the coursework they complete in their technical area while still in high school. These credits can then be used as a student at NECC or transferred to another college program of their choice.



**Advanced Manufacturing graduates and co-op students are working at the following companies:**

Arch Medical Solutions, Inc.  
Arwood Machine Corp.  
AW Chesterton, Inc.  
Magellan Aerospace, Inc.  
East Coast Fabrication, Inc.  
Fairview Machine, Corp.  
The Gillette Company  
Ital Tech  
Little Enterprises, Inc.  
MacDiarmid Machine Corp.  
Ramco Machine  
Straumann USA Corp.  
Targey Machine  
Wilmor Manufacturing



#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Advanced Manufacturing program exist at the following colleges and institutions:**

Central Maine Community College, \*Massachusetts Community Colleges, Southern Maine Community College, and Keene State College

\*Articulation agreements allows Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

Recognized by MASSMEP - Massachusetts Manufacturing Extension Partnership, Haas Learn CNC - Online Theory Program, MACWIC - Manufacturing Advancement Center-Workforce Innovation Collaborative, Level I and II, SME recognized/Society of Manufacturing Engineers, SkillsUSA, OSHA 10-hour safety certification

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## Vocational/Technical Programs

### Allied Health Careers



The **Allied Health** Center at Whittier Tech includes; Dental Assisting, Health Assisting and Medical Assisting all three are Chapter 74 approved programs with the Department of Elementary and Secondary Education.

Freshmen will have the opportunity to explore careers and opportunities within the Health Care Industry. All students will complete certification in: Basic Life Saver- CPR, and First Aid.

**Health Assisting:** Junior year, students will have the opportunity to learn *direct patient care* as they pursue certification as a **Certified Nursing Assistant – (CNA)**. Whittier Tech is an approved Massachusetts Department of Public Health Care and Quality Program. Students are prepared both academically and clinically to successfully pass the Massachusetts Nurse Aide Competency Exam. Clinical practice is done off campus in local health care facilities. The CNA entry level credential opens the door to many opportunities within the health care profession including acceptance to post-secondary nursing schools. Students who successfully complete the Health Assisting program earn additional certificates/credentials in: Home Health Aide, EKG, Dementia Care Training, and Developmental Disabilities to name a few. Upon successful completion of the CNA exam, students are placed on cooperative education to put their skills to work at various health care facilities throughout the Merrimack Valley.

**Medical Assisting:** Students learn and perform the administrative and clinical tasks needed to assist physicians in examining and treating patients. Medical assistant duties include but are not limited to: registering patients, updating EMR, scheduling appointments, taking medical history, measuring vital signs, POCT, capillary punctures, phlebotomy and performing EKGs. The program further develops principles about EMR simulation, pharmacology, HIPAA, Legal / Ethical issues, response to medical emergencies and communication. Students qualify for certification through NHA and can earn the title CCMA, this credential is industry recognized. This certification is highly desirable by many employers. Junior year, students practice their clinical skills during an unpaid externship. Students are encouraged to take advantage of the cooperative education program and put their skills to work at various health care facilities. Graduates will be able to pursue many career paths. Medical assistants work in a variety of settings including physicians offices, outpatient care facilities, and hospitals.

**Dental Assisting:** Students begin this rigorous program by learning Infection Control and the Health and Safety Practices of a dental professional. As the curriculum progresses students will learn the clinical and administrative duties of a dental assistant including patient care, dental charting, instrument and equipment practices, chair-side procedures, clinical record keeping, dental practice management, and laboratory procedures. Junior year, students learn principles and techniques of dental radiography and digital imaging. All students are encouraged to participate in the cooperative education program to further develop their skills in either specialty and/or general practice dental offices. Students are academically prepared to take the Dental Assisting National Board (DANB) certification exams in Infection Control, Radiation Health and Safety and General Chairside procedures. Upon graduation from this program, students are considered formally trained and are eligible to register with the Massachusetts Board of Registration in Dentistry as a Registered Dental Assistant.

**Articulation Agreements between Whittier Regional Vocational Technical High School's Health Occupations program exist at the following colleges and institutions:**

Keene State College, \*Massachusetts Community Colleges. Newbury College, Northern Essex Community, College Northeast Technical Institute

### Licenses, Certifications, and Affiliations

State Certified Nursing Assistant (CNA) certification, Home Health Aide (HHA), EKG certification, Certification in dental specific Infection Control and Radiation Health and Safety from the Dental Assisting National Board, Basic Life Saver- CPR, AED, First Aid, OSHA 10-hour general industry certification, and SkillsUSA.

\*Articulation agreements allow Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to [www.massec.org](http://www.massec.org)

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## Vocational/Technical Programs

### Auto Body/Collision Repair

The **Auto Body/Collision Repair** program is a three-year program built around the I-CAR® curriculum. I-CAR® is recognized industry wide as the leader in collision repair technology and research. The curriculum exposes and trains students in the trade through a series of competencies and tasks in the following areas: painting and refinishing, non-structural analysis and damage repair, damage analysis and estimating, structural analysis and damage repair, and mechanical and electrical components.

Students will deal directly with customers, write estimates, schedule jobs, order parts, and complete the repair process. Students' progress at their own pace in an environmentally friendly "green" shop featuring Waterborne Refinishing Systems.

In addition, students who successfully complete the Auto Body/Collision Repair program will receive I-CAR® certification as a Pro Level I Refinish Technician and Pro Level I Non-Structural Repair Technician. Students are eligible to receive credit for one year's work experience towards various Automotive Service Excellence (ASE) certifications. Students may also receive one year of experience towards Massachusetts Auto Damage Appraisers Licensure.

Upon graduation, students are employable as automotive refinishers, entry-level technicians, estimators, assistant managers, and salespersons for collision repair equipment, tools and supplies.



**Auto Body Collision Repair graduates and co-op students are working at the following companies:**

**Amesbury D.P.W.  
AutoFair Subaru  
Bill DeLuca  
Chevrolet-Buick- GMC  
Jackson Livery Service  
Jaffarian Volvo-Toyota  
MIDAS  
Nieberle's Service Station  
Sanborn Tire & Auto  
Seacoast VW  
Smith Motors  
Wall's Ford**

**Articulation Agreements between Whittier Regional Vocational Technical High School's Auto Technology program exist at the following colleges and institutions:**

**Keene State College**

### **Licenses, Certifications, and Affiliations**

BASF Refinishing certification, Mobile Air-Conditioning (MAC) Society, Fuser Plastic Repair certification, OSHA 10e-hour safety certification, SkillsUSA,

Safety Pollution Training (S/P 2) certificate, Hot Work Safety Certification, I-CAR® certification

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## Vocational/Technical Programs

### Automotive Technology

The **Automotive Technology** program will train students in all eight Automotive Service Excellence (ASE) Educational Foundation approved areas for which the department is certified. The training will consist of hands-on work performed on donated and customer vehicles including various engine systems and classroom theory. A series of competencies and tasks in all eight of the ASE approved areas including Engine Repair, Engine Performance, Automatic and Manual Transmissions, Climate Controlled Systems, Brakes, Steering and Suspensions, Electrical and Electronic Systems. Shop theory is supported by on-line and electronic curriculum used by students both in and out of the classroom.

Students who successfully complete the Automotive Technology program are eligible to receive credit for one year's work experience towards various Automotive Service Excellence (ASE) certifications. Additionally, students enrolled in the program receive the OSHA 10, SP/2 Certification, Massachusetts Hot Work Safety Certification, and Electrude Certification

Job opportunities in the Automotive Technology trade include advanced vehicle diagnostic technician, auto parts specialist, customer service advisor, municipal equipment maintenance, automotive shop management/ownership. Shop equipment maintenance, and sales and vehicle fleet maintenance.



**Auto Technology graduates and co-op students are working at the following companies:**

**Amesbury D.P.W.  
Autofair Subaru  
Bill Deluca Chevrolet-  
Buick-GMC  
Jackson Livery Service  
Jaffarian Volvo-Toyota  
Midas  
Nieberle's Service Station  
Sanborn Tire & Auto  
Seacoast Volkswagen  
Smith Motors  
Wall's Ford**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Auto Technology program exist at the following colleges and institutions:**

Central Maine Community College (CMCC), Keene State College, \*Massachusetts Community Colleges, New England Institute of Technology (NEIT), Southern Maine Community College (SMCC), Universal Technical Institute (UTI)

\*Articulation agreements allows for Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

SkillsUSA, OSHA 10-hour safety certification, National Automotive Technicians Education Foundation (NATEF) certified in all eight areas, Automotive Service Excellence (ASE), SP/2 Safety Certification, Hot Work Safety Certification

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## Vocational/Technical Programs

### Business Technology

**Business Technology** and Marketing have joined forces to provide a comprehensive and well-rounded program to prepare students for the business world. Curriculum will integrate marketing concepts, accounting, QuickBooks, computer applications, and office practices and procedures which will provide students with a strong foundation in business. Students will also be introduced to legal issues and develop knowledge in personal finance. They will learn proper time management, organizational skills, and goal setting strategies. Students will select which program they want to earn their trade certificate credential at the end of sophomore year.

Students will experience the ultimate example of retailing by operating Whittier's two diverse stores; J. Greenleaf and Whitt's End. Students receive comprehensive training on Cash Register Express, which is our Point of Sale system. They also develop skills in advertising, product selection and display, inventory management, merchandising, customer service, and interpersonal skills. Operating the school stores provides students the hands-on experience of running an active business.

Students are also prepared to take Microsoft Office Specialist (MOS) certification exams in Word, Excel, PowerPoint, and Access. These credentials are recognized worldwide. Certification builds individual distinction and ensures employers that students are prepared for an increasingly competitive workforce. Whittier Tech will be an authorized Microsoft Office (MOS) testing center later this year.

Possible career pathways: Business, Finance, Management, Marketing, Advertising, Banking, Accounting, Administrative Assistant, Public Relations, Office Manager, Salesperson, Payroll Clerk, Executive Assistant, as well as Retail Operations.



**Business Technology graduates and co-op students are working at the following companies:**

**Auto Parts of Plaistow  
Bob's Discount Furniture  
CVS  
Deborah A. Connor CPA  
Haverhill Bank  
Walgreens**

### **Articulation Agreements between Whittier Regional Vocational Technical High School's Business Technology program exist at the following colleges and institutions:**

Keene State College and \*Massachusetts Community Colleges,

\*Articulation agreements allows Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

### **Licenses, Certifications, and Affiliations**

OSHA 10-hour safety certification, Microsoft Office Specialist Certification (MOS), Internet and Computing Core Certification (IC-3), Massachusetts School Bank Association (MSBA), DECA, SkillsUSA

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## Vocational/Technical Programs

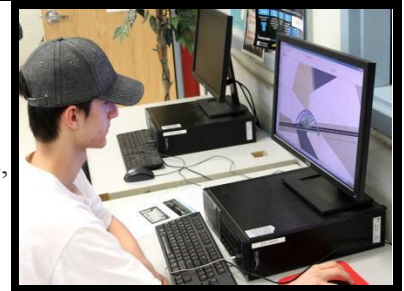
### CAD/Drafting

The **CAD/Drafting** program introduces the student to the use of drafting instruments, measuring, line work, geometric construction, orthographic projection, sketching, isometric drawing and perspective drawing. Students progress to drawing layout, multi-view drawings, sectioning, auxiliary views, assembly drawings and model making. A major part of the curriculum includes computer-aided drafting using AutoCAD, Solidworks and Revit software to produce drawings on the computer.

Students draw a series of projects which are designed to progressively lead them to basic proficiency level in drafting and CAD. Students are then encouraged to choose an area of interest (mechanical, architectural, etc.) and are then guided through higher level projects which are drawn in 3D software and printed on a 3D printer. In addition, students learn conceptual design practices and how to build prototypes and models.

As a CAD operator or drafter, students can work for companies which concentrate on mechanical, machine, electrical, electronics, electro-mechanical, civil, structural and architectural design. In addition, each student is given the opportunity to take the American Design Drafting Association ADDA certification test which is internationally recognized.

Students in this technical area are able to participate in the Northern Essex Community College (NECC)/Whittier Tech Advanced Manufacturing Concurrent Enrollment program. Through this program, students have the opportunity to earn college credit for the coursework they complete in their technical area while still in high school. These credits can then be used as a student at NECC or transferred to another college program of their choice.



**CAD/Drafting graduates and co-op students are working at the following companies:**

ALFA Laval  
Analogic Corporation  
A. W. Chesterton Company Gelinas  
Structural Engineering, LLC  
Hudson Design Group  
Innovation Technology  
INTEREX  
Rochester Electronics  
Sampson  
Shea Concrete  
UFP Technologies  
Weston and Samson

### **Articulation Agreements between Whittier Regional Vocational Technical High School's CAD/Drafting program exist at the following colleges and institutions:**

\*Massachusetts Community Colleges, New England Institute of Technology, New Hampshire Technical College, Southern Maine Community College, Keene State College

\*Articulation agreements allows Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

### **Licenses, Certifications, and Affiliations**

American Design Drafting Association-Member (ADDA), National Occupation Skills Standards-Computer Aided Drafting (CAD), SkillsUSA, OSHA 10-hour safety certification

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## Vocational/Technical Programs

### Carpentry

The **Carpentry** program provides instruction in finish carpentry, house construction, remodeling and current building codes. Carpentry students are instructed in the use of basic hand tools, portable and stationary power equipment, estimation and use of building materials, millwork fabrication, project lay-out and design. Students (in their senior year) are also involved in various school remodeling projects as well as projects for municipalities and non-profits within the Whittier School District. In addition to technical knowledge, students are instructed in the areas of the occupational safety and health, employability, and entrepreneurship leading to varied career opportunities.

Successful completion of the Carpentry program will satisfy one of the three years of experience required by the state for Construction Supervisor certification.

In addition, graduates of the program can apply to the Boston Carpenters Apprenticeship & Training Fund (BCATF), the Eastern Massachusetts Carpenters Apprenticeship & Training Fund, and the Construction Craft Laborers Apprenticeship Program & Training Committees (JATC). Graduates who meet the standards for admission have the opportunity for accelerated advancement through these programs.

After graduation, students are employable as framers, finish carpenters, cabinetmakers, remodelers, dry wallers, siders, and lumberyard employees involved with distribution and sales.



**Carpentry graduates and co-op students are working at the following companies:**

**Atlantic Coast Fence Company  
C2MG Builders  
CDC Packaging Corp  
CW Keller & Associates  
DMS Builders  
Frame My TV  
Hastings Floor Covering  
INTEREX  
L&S Construction  
Royale Limousine  
Star Construction Co.**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Carpentry program exist at the following colleges and institutions:**

Boston Carpenter's Apprenticeship & Training Fund (BCATF), Central Maine Community College, Construction Craft Laborers Apprenticeship & Training Committee (JATC), Eastern Massachusetts Carpenter's Apprenticeship & Training Fund, Holland College, Keene State College, \*Massachusetts Community Colleges, New England Institute of Technology, New Hampshire Technical College

\*Articulation agreements allows Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

OSHA 10-hour construction safety certification, SkillsUSA, Hot Work Safety Certification

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## Vocational/Technical Programs

### Cosmetology

Students in the ***Cosmetology*** program learn the techniques necessary for a career in the beauty industry with a focus on how to develop a self-confident and professional attitude crucial for success in the trade. Students learn the principle steps of performing hairstyling techniques both wet and dry, basics of ethnic hair styling, facials, makeup, manicures, scalp treatments, haircuts, foil highlights, and advanced nail techniques. Chemical services such as hair coloring, hair bleaching, permanent waving and hair straightening are demonstrated throughout the program.

Senior year, students have the opportunity to further develop their skills while working in our in-school salon which is open to the public. Upon completion of one thousand (1,000) hours, students are prepared to take the Massachusetts State Board exam, and may obtain a Cosmetology Operators License.

Upon graduation, job opportunities may include: salon stylist, nail technician, skin care specialist, platform artist, product educator, salon manager or owner, hair color specialist, texture service specialist, wig/extensions specialist, and make-up artist.



**Cosmetology graduates and co-op students are working at the following companies:**

**Amelia's  
Brushed Salon  
Divine Salon  
Hair Co K  
Influx Salon  
Interlocks  
LaPosh Salon  
Mane Salon and Spa  
Super Cuts  
Transformations**

### Licenses, Certifications, and Affiliations

Massachusetts State Board of Cosmetology Operator's License, Massachusetts Cosmetology Association, New England Cosmetology Association, Barbicide Certification OSHA 10-hour safety certification, SkillsUSA, Wig Bank - American Cancer Association

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## Vocational/Technical Programs

### Culinary Arts

The **Culinary Arts** program combines hands-on training with classroom instruction. Students learn the principles of breakfast cookery, garde manger, food preparation, food service production, baking and pastry arts, food service and Restaurant/Hospitality management, cafe barista and banquet and event planning.

Students gain practical experience in the Poet's Inn and cafe, our school restaurant that services the public and staff. This experience prepares students to enter the workforce or continue their education in culinary arts, baking or hospitality management. Students may also participate in the cooperative education program beginning the fourth quarter of their junior year.

Students have the opportunity to earn ServSafe Food Certification, ServSafe Alcohol Certification, ChokeSaver/CPR Certification, Allergen Training Program Certification and an OSHA 10- Hour General Industry Certification.

Students can participate in SkillsUSA, DECA and the Massachusetts Restaurant Association competitions, earning them scholarships for post-graduate certificate or degree programs.

Upon graduation, job opportunities include: prep cook, line cook, assistant chef, assistant pastry chef, server, barista dining room manager, and fast food manager, dietary aide, and produce assistant.



**Culinary Arts graduates and co-op students are working at the following companies:**

99 Restaurants,  
Atkinson Country Club,  
Ashland Farms, Bertucci's,  
Bistro 28, Butcher Boy,  
Fenway Park, Friendly's, Haverhill  
Country Club,  
Kenoza Manor,  
Lawrence General Hospital,  
Mann's Orchard,  
Market Basket, Mission Oak,  
N. Andover Country Club, Nichol's  
Village, Panera, Penacook Place,  
Renaissance Country Club, Simply  
Elegant Catering, Stop & Shop,  
Sylvan Street Grill, Whittier  
Rehabilitation Hospital, Wooden  
Spoon Catering,  
Sea Dog Brewing Company,  
Chick-fil-a, Pica's Pub and Grill,  
The Deck, Otto Pizza, The Poynt,  
Kobe's,

**Articulation Agreements between Whittier Regional Vocational Technical High School's Culinary Arts program exist at the following colleges and institutions:**

Central Maine Community College, Southern Maine Community College, Keene State College, \*Massachusetts Community Colleges,

\*Articulation agreements allows Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

### Licenses, Certifications, and Affiliations

Massachusetts Restaurant Association, National Restaurant Association, SkillsUSA, Pro-Start Certification, ServSafe Food and Alcohol Certification, Choke Saver Certification/CPR Certification, Allergen Training Program Certification, OSHA 10-hour general industry certification.

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## Vocational/Technical Programs

### Design and Visual Communications

The ***Design and Visual Communications*** program provides training in all aspects of visual communication design and multimedia.

Students are introduced to a variety of apps such as InDesign, Illustrator, and Photoshop. This experience also serves as a solid background for those interested in learning web page design. Students build foundation skills in the creative process, principles of design and color theory, digital photography, page layout, illustration, animation, video and web-based portfolio preparation are emphasized.

In addition, students are prepared to acquire Adobe Certified Associate (ACA) status by taking various exams in their junior or senior year. ACA exams are offered in Illustrator, InDesign, Photoshop, Animate, and Premiere.

Upon graduation, students are prepared to pursue jobs and freelance opportunities in layout and design, illustration, digital photography, videography, and web design. Students can go on to earn degrees at two and four year colleges and universities.



**Design & Visual Communications graduates and co-op students are working at the following companies:**

**Chaucer Accessories  
Concord Printing  
Deschamps Printing  
Flayr Photography  
New England Label  
Noerr Programs Corp.  
Primary Design  
Ram Printing  
Roy Rivas Photography  
Routehappy  
Techprint, Inc.  
Wholesale Printing**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Design & Visual Communications program exist at the following colleges and institutions:**

Southern Maine Community College, Keene State College, \*Massachusetts Community Colleges, New England Institute of Technology

\*Articulation agreements allow Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to [www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

SkillsUSA, OSHA 10-hour safety certification, Adobe Certified Associate (ACA)

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## Vocational/Technical Programs

### Early Education and Care

The **Early Education and Care** program is designed to prepare students for professional careers of caring and teaching with an emphasis placed on the development of young children. Through their practical experience at various child care facilities and public school pre-school and kindergarten programs, students observe and participate under the supervision of certified teachers and child care professionals. Students gain experience of a variety of “ages and stages” as well as different teaching styles. The information gained in the theory/study of child development is also applied in practical experiences while working with young children.

The curriculum in child growth and development is designed to prepare students to apply for certification as infant/toddler and/or preschool teachers, by the Massachusetts Department of Early Education and Care, as well as preparing for the certification as a paraprofessional in the state of Massachusetts.

Graduates will possess the necessary skills to be employed as teachers in the early childhood field or may choose to continue in their education at the post-secondary level. Graduates will also have the foundation to continue education to become a pediatrician, speech therapist, child therapist ect.



**Early Education and Care graduates and co-op students are working at or have worked at the following companies:**

**Basic Beginnings  
Beverly School for the Deaf  
Froggy's Play School  
Haverhill Day Care  
Little Hands Big Feats  
Little Sprouts  
Merrimack Child Care Center  
YMCA Child Care**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Early Education and Care program exist at the following colleges and institutions:**

**Keene State College and \*Massachusetts Community Colleges**

\*Articulation agreements allow Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to [www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

Massachusetts Department of Early Education and Care certification, CPR and First Aid certification, OSHA 10-hour safety certification, SkillsUSA.

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## Vocational/Technical Programs

### Electrical

Students in the **Electrical** program learn the fundamentals of electrical circuitry and the laws that govern electricity. Course content includes electrical theory, electrical building code, safety practices, and installation techniques.

Upon successful completion of the Electrical program, students will become proficient in “all aspects” of the electrical trade. These areas include:

- Safety/health skills to perform work with the awareness of safety in the workplace.
- Technical knowledge and skills in the areas of residential, commercial and industrial circuitry, applicable electrical codes and theories of electricity, with the support of related instruction.
- Employability knowledge and skills, which develop good work ethics, communication, and problem solving skills.
- Management and entrepreneurship knowledge and skills by developing a business plan and understanding the requirements to own and operate a business.
- Students will receive over 1,600 hours of practical experience and 150 hours of theory code toward licensure from the Commonwealth of Massachusetts Board of State Examiners of Electricians.

Upon graduation from the Electrical program, students who wish to continue their education toward licensure will leave Whittier Tech with over 1,500 hours of practical experience as well as 150 code/theory hours and will progress directly in to Electrical Journeyman II\*.

\*For further information on licensing/continuing education please see the Whittier Tech Night School Program information on our website at <https://wtatnight.whittiertech.org/>



**Electrical graduates and co-op students are working at the following companies:**

**Alarm X**  
**All American Sign**  
**All-Pro Electric**  
**Daniels Electric**  
**East Coast Electric**  
**Horrigan Electric**  
**Jack Sanborn & Sons**  
**Lavoie Electric**  
**Merrimac Industrial Sales**  
**Morrill Electric**  
**Munters**  
**O'Mahoney + Sons**  
**Electrical, Inc.**  
**Piquette & Howard**  
**Professional Electrical**  
**Contractors**  
**Rice & Brouillard**  
**Stellos Electric**  
**Stilian Electric**  
**T.C.B Electric**

**Articulation Agreements between Whittier Regional Vocational Technical High School's Electrical program exist at the following colleges and institutions:**

Keene State College, New England Institute of Technology, and the University of Southern Maine

### Licenses, Certifications, and Affiliations

OSHA 10-hour construction safety certification, SkillsUSA, Hot Work Certification, Local 103 IBEW of Boston

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## Vocational/Technical Programs

### Electronics/Robotics

Students in the **Electronics/Robotics** program learn the basic principles of analog and digital electronics with emphasis on AC and DC circuits, solid state devices, and digital circuits. In conjunction with this, students perform laboratory experiments that require prototyping, circuit assembly, and soldering skills. Students integrate these skills by building various electronic projects and kits that reflect real-world applications. In the robotic area, students learn how electronic circuits are used to control mechanical devices by building simple robotic projects such as mobile robots. Students also design and build robotic projects using computers and robotics software which progresses from basic programming levels up to more challenging ones. Emphasis in the program is given to problem solving and critical thinking skills, along with extensive hands-on activities. Skills in several technological areas are combined to broaden students' development and to maximize career opportunities.

Upon completion of the program, graduates have the foundation to pursue careers such as electronic technicians, field service technicians, electronic assemblers or electronic inspectors. With further instruction, graduates could pursue careers such as electronic engineers, robotics engineers, or medical electronic technicians.

Students in this technical area are able to participate in the Northern Essex Community College (NECC)/Whittier Tech Advanced Manufacturing Concurrent Enrollment program. Through this program, students have the opportunity to earn college credit for the coursework they complete in their technical area while still in high school. These credits can then be used as a student at NECC or transferred to another college program of their choice.



**Electronics/Robotics graduates and co-op students are working at the following companies:**

**Advanced Communication Systems  
CPR Technologies  
Electronics Products Inc.  
Sparton Technology Corporation**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Electronics/Robotics program exist at the following colleges and institutions:**

Baran Institute, Central Maine Technical Institute, New England Institute of Technology, Northern Essex Community College

#### **Licenses, Certifications, and Affiliations**

Electronic Technicians Association (ETA), Student Electronic Technician (SET), OSHA 10-hour safety certification, SkillsUSA

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## Vocational/Technical Programs

### Engineering Technology

**Engineering Technology** is for students interested in science, technology, engineering and mathematics. The program is designed to provide qualified students, who are interested in pursuing an engineering or technical path in college, with the foundation of a broad but highly specialized education in engineering technologies.

With a hands-on approach and using state of the art technologies and tools, students are introduced to various engineering concepts such as Engineering Design and Three Dimensional Solid Modeling. They will learn how to acquire engineering fundamental knowledge and practices, and how to develop their analytical skills and their logical thought process. During the program, the students will be introduced to various fields of engineering such as Mechanical Engineering, Civil Engineering, Electrical Engineering, etc. This program will climax in a Senior Year project that will test their ability to solve real world problems in engineering using their learned problem solving skills and techniques.

**Engineering core curriculum will consist of a combination of the following courses:**

**Principles of Engineering** - Helps students understand the field of engineering/engineering technology.

**Civil Engineering and Architecture** - Provides an overview of the fields of Civil Engineering and Architecture using state of the art software to solve real world problems and communicate solutions to hands-on projects and activities.

**Introduction to Engineering Design** - Teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

Engineering students also complete coursework in advanced manufacturing and biomedical engineering.

The Engineering Program at Whittier stresses and promotes gender equality in studying and mastering engineering technologies. The program also emphasizes the study of more comprehensive levels of math, science and English that are required for a successful college career in engineering disciplines.



**The Whittier Engineering program is a Project Lead The Way (PLTW) certified program.**

**Engineering co-op students are working at the following companies:**

City of Haverhill Engineering Department

ProjectDog

Weston and Sampson

Practical Applications

Bobrek Engineering

EPI

**Articulation Agreements between Whittier Regional Vocational Technical High School's Engineering Technology program exist at the following colleges and institutions:**

\*Massachusetts Community Colleges, Rochester Institute of Technology, University of Massachusetts, Worcester Polytechnical Institute

\*Articulation agreements allow Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

### Licenses, Certifications, and Affiliations

SkillsUSA, OSHA 10-hour safety certification, Hot Work Safety Certification, OnShape Pros. [Back to Top](#)



## Vocational/Technical Programs

### Heating/Ventilation, Air Conditioning and Refrigeration (HVAC)

The students in **HVAC** develop the technical knowledge and skills that lead to career placement as an HVAC apprentice. Skills are developed through class theory and instructional labs covering the installation and service of a variety of equipment. Topics covered begin with hand and power tool safety and progress to refrigeration and piping practices, gas and oil heating systems, heat pumps, electrical troubleshooting, blueprint reading, heat load calculations, duct construction and green technologies.

In addition, upon successful completion of the program, students receive 100 hours of Massachusetts electrical code training and over 100 hours of refrigeration theory. These hours can be applied to the Massachusetts refrigeration and/or oil burner technician requirements for licensure. Students will also have the opportunity to take section 608 of the Federal Clean Air Act exam.



**HVAC graduates and co-op students are working at the following companies:**

**American Sheet Metal  
Berry Mechanical  
Climate Zone  
Franks Heating and Cooling  
MSI Mechanical  
North Mechanical  
Palmer Gas & Oil  
Process Pipe  
Reid Mechanical  
RPM HVAC**

**Articulation Agreements between Whittier Regional Vocational Technical High School's HVAC program exist at the following colleges and institutions:**

Baran Institute, Eastern Maine Technical College, \*Massachusetts Community Colleges, New England Institute of Technology, and Keene State College

\*Articulation agreements allow Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to [www.masscc.org](http://www.masscc.org)

### **Licenses, Certifications, and Affiliations**

Environmental Protection Agency (EPA) certification, OSHA 10-hour construction safety certification, Hot Work Safety Certification, SkillsUSA

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## Vocational/Technical Programs

### Hospitality Management

The ***Hospitality Management*** program incorporates curriculum from the American Hotel and Lodging Association Educational Institute and the National Restaurant Association Educational Foundation. The curriculums were developed by Hospitality Industry leaders and Members of the Association.

The Hospitality Management Program at Whittier will explore the fundamentals of Hospitality and Tourism, including: front desk, food and beverage service, housekeeping operations, facility personnel, banquet and catering service, meeting and event planning, resort management, hospitality marketing and sales.

Students will also learn to work in and manage the front of the house in our school's restaurant, called The Poet's Inn. Students will gain experience, first as a cashier, host and server followed by management roles in the restaurant that is open to the staff and public. Additionally, students will learn how to be a barista in our quick-service cafe.

Through working in Whittier's student-run restaurant and cafe, job shadowing, internships, and the co-op education program, the students are able to explore a variety of career pathways available to them in the Hospitality Industry.

Students may participate in SkillsUSA and Massachusetts Restaurant Association competitions, earning them scholarships for postgraduate programs.



**Hospitality Management graduates and co-op students are working at the following companies:**

**99 Restaurants  
Atkinson Country Club  
Community Oven  
Hampton Inn  
McDonalds  
Marriott Properties  
Mission Oak Grill  
Mission on the Bay  
Nichols Village  
Otto Pizza  
Periwinkle Cafe  
Smolak Farm  
The Poynt**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Hospitality program exist at the following colleges and institutions:**

##### **\*Massachusetts Community Colleges**

\*Articulation agreements allows for Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to [www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

ServSafe Food Certification, ServSafe Alcohol Certification, ChokeSaver/CPR Certification, Allergen Training Program Certification, OSHA 10-hour safety certification

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## Vocational/Technical Programs

### Marine Service Technology - Pending DESE Approval

If approved by the DESE, the **Marine Service Technology** technical program will begin with a freshman exploratory program starting with the 2022 – 2023 school year. This exploratory program will introduce students to the recreational marine repair industry. The coursework moving forward will provide students with a rigorous and comprehensive curriculum that will provide training in the:

- Operation
- Maintenance
- Repair
- Rebuilding
- Installation of onboard systems.

As the program progresses all aspects of vessel repair will be covered with an emphasis on engine mechanical repair, DC electrical circuitry and computer diagnostics. Students will also be taught two and four cycle engine theory, hull maintenance and repair, marine canvas fabrication and repair, gas and diesel engine operation and repair, and welding and precision metal fabrication. Throughout the program, instruction will involve extensive hands-on projects in a group setting, enhanced with demonstration and traditional theory. Throughout this STEM based program modern diagnostic procedures will be performed using industry service on the most technologically advanced equipment available.



#### Marine Service Technology Partnerships:

**Marine Manufacturers Association**  
**Mass Marine Trade Association**  
**Yamaha Marine University**

### Pending Licenses, Certifications, and Affiliations

ABYC - Marine Trades Accreditation Program, OSHA 10-hour safety certification, Hot Work Safety Certification, SkillsUSA, Yamaha Marine Service Tech Certifications

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## Vocational/Technical Programs

### Marketing Education

**Marketing Education** and Business Technology have joined forces to provide a comprehensive and well-rounded program to prepare students for the business world. Curriculum will integrate marketing concepts, accounting, QuickBooks, computer applications, and office practices and procedures which will provide students with a strong foundation in business. Students will also be introduced to legal issues and develop knowledge in personal finance. They will learn proper time management, organizational skills, and goal setting strategies. Students will select which program they want to earn their trade certificate credential at the end of sophomore year.

Students will experience the ultimate example of retailing by operating Whittier's two diverse stores; J. Greenleaf and Whitt's End. Students receive comprehensive training on Cash Register Express, which is our Point of Sale system. They also develop skills in advertising, product selection and display, inventory management, merchandising, customer service, and interpersonal skills. Operating the school stores provides students the hands-on experience of running an active business.

Students are also prepared to take Microsoft Office Specialist (MOS) certification exams in Word, Excel, PowerPoint, and Access. These credentials are recognized worldwide. Certification builds individual distinction and ensures employers that students are prepared for an increasingly competitive workforce. Whittier Tech will be an authorized Microsoft Office (MOS) testing center later this year.

Possible career pathways: Business, Finance, Management, Marketing, Advertising, Banking, Accounting, Administrative Assistant, Public Relations, Office Manager, Salesperson, Payroll Clerk, Executive Assistant, as well as Retail Operations.



**Marketing Education graduates and co-op students are working at the following companies:**

**Blouin Service  
Carparts of Plaistow  
City of Haverhill  
Deborah Conner, CPA  
Haverhill Bank  
Market Basket  
Walgreens**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Marketing Education program exist at the following colleges and institutions:**

Bay State College, Boston University, Central Maine Community College, Southern Maine Community College, Johnson and Wales University, \*Massachusetts Community Colleges, Newbury College, New England Institute of Technology, University of Southern Maine

\*Articulation agreements allows for Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

OSHA 10-hour safety certification, Microsoft Office Specialist Certification (MOS) Massachusetts School Bank Association (MSBA), SkillsUSA

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## Vocational/Technical Programs

### Masonry

The **Masonry** trade produces some of the highest paid workers in the construction industry. Many people are successful in the building and construction trades because they enjoy a variety of active, hands-on work experiences. Students receive instruction in working with traditional brick, block, stone, tile, and concrete. Additionally, students will learn how to install modern masonry products like thin stone and brick veneer, segmental retaining wall blocks and segmental concrete pavers. Students will also receive hands-on training in the proper use of hand and power tools and equipment. The curriculum combines theory with practical application. In addition, students will also develop skills in blueprint reading and estimating. Masonry knowledge is an integral part of the curriculum for several professional and graduate certificates in Construction Management.

Career Opportunities include: Local 3 - Union Apprenticeship Program, bricklayers, stonemasons, cement finishers, tile setters, salespersons, construction management, general contractors, design professionals, cost estimators and more.

Many of our graduates have found success by becoming skilled journeyman workers through the Local 3 Apprenticeship Program\*.

\*The Building Trades unions and their signatory contractor partners operate over 30 joint apprenticeship training centers (JATC's) across Massachusetts producing the most qualified craftspeople in the industry. Union apprenticeship allows you to earn while you learn. For more information go to [www.builtbest.org](http://www.builtbest.org).



**Masonry graduates and co-op students are working at the following companies:**

**A&R Masonry  
Hastings Floor Covering  
Masonry Company  
Local 3 - Bricklayers &  
Allied Carpenters  
Martignetti Enterprises  
M. O'Mahoney Company  
NE Fieldstone Walls  
Shea Concrete  
Sherwood Masonry  
Tile Expressions  
Triad Associates**

### Licenses, Certifications, and Affiliations

Union Apprenticeship Program Local 3, OSHA 10-hour construction safety certification, Joint Apprenticeship Training Centers in Massachusetts (JATC), Massachusetts Trowel Trades Association (MTTA), Hot Work Certification, SkillsUSA

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## Vocational/Technical Programs

### Metal Fabrication

In the ***Metal Fabrication*** program students develop working skills in several fabricating fields. Training is accomplished with state-of-the-art equipment, including LVD STRIPPIT Precision Sheering (Computer Numerical Control - CNC press brake forming), LVS STRIPPIT Turret Punch, CNC precision plasma cutting, Computer Numberized Control spot welding and new Inverter multi-function welding machines. Welding processes also included are Gas Tungsten Arc Welding (GTAW), Gas Metal Arc Welding (GMAW), and Shielded Metal Arc Welding (SMAW) Manual Plazma Pipe Cutting, Pipe Position Accessories, Oxy Fuel Cutting and welding and electrode selection.

The Metal Fabrication curriculum includes related math, blueprint reading, orthographic projection, parallel line development, triangulation and sciences associated with the above welding discipline and completed by live industrial work situations. Students are trained to be certified in their chosen welding disciplines and are prepared to take various welding certification exams. Students who meet the “American Welding Society's” standards can become Qualified Welders prior to graduation.

In addition, through an articulation agreement, graduates of the program can apply to the Sheet Metal Local 17 & Local 63 Joint Apprenticeship & Training Committees (JATC). Graduates who meet the standards for admission have the opportunity for accelerated advancement through the program.



**Metal Fabrication graduates and co-op students are working at the following companies:**

**Brazetronics  
Cassidy Bros. Inc  
CP. Biouin Inc.  
East Coast Welding  
Ergomet, Inc.  
Lytron Metal-Tronics  
Metal Crafters**

#### **Articulation Agreements between Whittier Regional Vocational Technical High School's Metal Fabrication program exist at the following colleges and institutions:**

AWI Institute – White Mountain Community College, Baran Institute, Keene State College,  
\*Massachusetts Community Colleges, New Hampshire Technical College, Sheet Metal Workers Local 17 & Local 63 Joint Apprenticeship and Training, Southern Maine Community College, University of Southern Maine

\*Articulation agreements allow Chapter 74 Vocational Technical High School students to enroll at any Massachusetts community college and be awarded credits for work completed at the vocational high school level. For more information regarding Statewide Articulation Agreements go to

[www.masscc.org](http://www.masscc.org)

#### **Licenses, Certifications, and Affiliations**

Sheet Metal Workers 17 and Local 63, Joint Apprenticeships Training Committees, SkillsUSA, OSHA 10-hour construction safety certification, Hot Work Certification, On site American Welding Society- CWI

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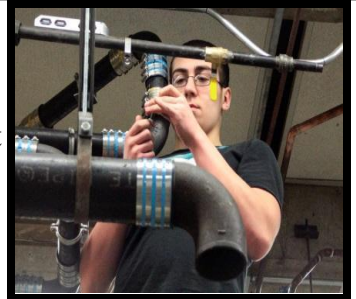
## Vocational/Technical Programs

### Plumbing and Heating

In the **Plumbing and Heating** program students are trained in all phases of commercial and residential plumbing, including tool and material recognition, drain installations, the installation of forced hot water and steam heating systems. Students are also trained to install water lines and gas lines. Further instruction is provided for the students in the Massachusetts State Plumbing Code, plumbing and heating theory, and the safe use of required hand and power tools. Students also learn the use of gas torches for welding, soldering and brazing.

Upon graduation from this program, students complete Tier I and II of the five tier state mandated plumbing apprenticeship training program and receive over 1000 hours of practical work experience. Career opportunities include positions as: apprentice plumbers, journeyman plumbers, estimators, plumbing tool and supply sales positions, plumbing inspectors, pipefitters and gas fitters. Many of our graduates have found success through the Joint Apprenticeship Training Centers (JATC) programs including: Local 12 Plumbers and Gasfitters, Local 537 Pipefitters, Refrigeration, Air Conditioning and Oil Burners.

\*Building Trades unions and their signatory contractor partners operate over 30 joint apprenticeship training centers (JATCs) across Massachusetts producing the most qualified craftspeople in the industry. Union apprenticeship allows you to earn while you learn. For more information go to [www.builtbest.org](http://www.builtbest.org)



**Plumbing and Heating graduates and co-op students are working at the following companies:**

**Bilo Plumbing  
Breen and Sullivan  
Burke and Sons  
Caswell Mechanical  
Corso Plumbing and Heating  
DiPietro Climate Zone  
Galinsky Plumbing and Heating  
J.C. Cannistrano  
Joe Roy & Sons Plumbing & Heating, Inc.  
Locher Plumbing  
Maffei Plumbing and heating  
Morris Plumbing and Heating  
North Mechanical Powerhouse  
Plumbing Process Piping Co.  
Riverside Plumbing  
Stark and Croak  
Uptack Plumbing & Heating**

**Articulation Agreements between Whittier Regional Vocational Technical High School's Graphic Communications program exist at the following colleges and institutions:**

**Keene State College**

### **Licenses, Certifications, and Affiliations**

OSHA 10-hour construction safety certification, SkillsUSA, Massachusetts Plumbing, Heating and Cooling Contractors Association (PHCC), Hot Work Safety Certification, Wardflex C.S.S.T Certification, Uponor Certification, Viega Certification

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# Whittier Regional Vocational Technical High School Admissions Policy

## I. Equal Educational Opportunity

In compliance with federal and state law, Whittier Tech admits students and makes available to them its programs, privileges, and courses of study without regard to race, color, sex, gender identity, religion, national origin, sexual orientation or disability.

Consistent with Massachusetts [regulations](#), Whittier Tech has created a plan with “deliberate, specific strategies to promote equal educational opportunities and attract, enroll, and retain a student population that, when compared to students in similar grades in sending districts, has a comparable academic and demographic profile.”

Consistent with Massachusetts [regulations](#), Whittier Tech does not consider a student's record of excused absences from school, or minor behavior or disciplinary infractions.

Whittier Tech ensures that all admissions materials are in both English and the primary language of the home, if such primary language is other than English.

Whittier Tech has an online application that is adaptable to languages other than English. If there is a student with limited English proficiency that needs assistance, a qualified representative from Whittier Tech will assist the applicant throughout the entire Admission Process. Please contact our Admissions Office at 978-373-4101 or email [admissions@whittier.tec.ma.us](mailto:admissions@whittier.tec.ma.us) if you have questions or need help throughout any part of the admissions process.

Whittier Tech is committed to providing educational opportunities to students experiencing homelessness. Please contact Whittier Tech's liaison the Director of Guidance and Admissions at [admissions@whittiertech.org](mailto:admissions@whittiertech.org). 978-373-4101 ext. 263 with any questions.

Students with disabilities may, but need not, voluntarily identify themselves to Whittier Tech to request reasonable accommodations during the application and admission process.

Information on limited English proficiency and disability, submitted voluntarily by the applicant for the purpose of receiving assistance and accommodations during the entire application and Admission Process, will not affect the applicant's admission to the school.

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## **II. Eligibility**

### **Resident Students**

Any eighth, ninth, or tenth grade student who is a resident of the Whittier Tech Regional Vocational District, who expects to be promoted by their local district to the grade they seek to enter, is eligible to apply for fall admission or admission during the school year, subject to the availability of openings. Resident students will be evaluated using the criteria contained in this Admission Policy. Whittier Regional Vocational School District does not have a predetermined city/town quota in regard to the number of students accepted from sending communities.

### **Homeschooled Students**

Any student who is formally being home schooled and is a resident of the Whittier Tech Regional Vocational District is eligible to apply for fall admission or admission during the school year to grades nine through eleven provided all admission criteria are followed. Additionally, the home schooled student's parent(s)/guardian(s) must submit a copy of the home school approval letter from the local school superintendent, provide documentation showing the approval of the curriculum and provide evidence of work reflecting state benchmarks. Home schooled students will be evaluated using the criteria contained in this Admission Policy.

### **Transfer students**

Transfer students from other M.G.L. c.74 state approved vocational technical programs who move into the Whittier Regional Vocational Technical School District are eligible to apply for fall admission or admission during the school year to grades nine through twelve at Whittier Tech provided they expect to be promoted by their current school to the grade they seek to enter. Transfer students will be evaluated using criteria contained in this Admission Policy.

### **School Choice**

Whittier Tech School Committee votes annually in June as to whether or not to participate in the inter-district school choice program. The inter-district school choice program, M.G.L c. 76 allows parents/guardians to send their children to school in communities other than the city or town in which they reside. School Choice applicants may be accepted if Whittier Tech does not meet the desired enrollment number from our in-district students.

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### **III. Organizational Structure**

Whittier Regional Vocational Technical High School is a public vocational/technical school in Haverhill, Massachusetts. It is operated by the Whittier Regional Vocational School District and is accredited by the New England Association of Schools and Colleges. Whittier is governed by a School Committee comprised of representatives from its sending districts. Whittier Tech is committed to providing quality academic and vocational career technical programs.

It is the responsibility of Whittier Tech's Superintendent to oversee the administration of the Admissions Policy and to submit an annual attestation to the Department of Elementary and Secondary Education stating that Whittier's Admissions Policy complies with federal and state law and any relevant guidance.

Whittier Tech has an Admission Committee appointed by the Superintendent.

Responsibilities of the Admissions Committee include:

- Determination of selective criteria
- Development and implementation of admission procedures
- Processing applications
- Ranking of students
- Acceptance of students according to the procedure and criteria in the Admission Policy
- Establishment and maintenance of a waiting list of acceptable candidates

Whittier Tech's Director of Guidance and Admissions, who is a member of the Admission Committee, is responsible for disseminating information about Whittier Tech. The Director of Guidance and Admissions reviews the applications and works directly with the sending schools' Guidance Department throughout the Admissions Process.

### **IV. Admissions Communication Policies**

The Whittier Tech recruitment process includes deliberate, specific strategies to promote equal educational opportunities and attract, enroll, and retain a student population that, when compared to students in the Whittier Tech sending municipalities, have a comparable academic and demographic profile.

1. Whittier Tech offers tours to all 8th grade students from our sending districts during the school day. The Director of Guidance and Admission will decide on a mutually agreeable date allowing all students to tour the building. Transportation is provided by Whittier Tech
2. The Director of Guidance and Admission will visit all middle schools from sending districts and meet with interested 7th grade students.

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3. The District will hold an Open House during the first Sunday of November. Prospective students and parent(s)/Guardian(s) have an opportunity to visit all vocational career technical programs, speak with teachers and meet with members of the Admission Team about all offerings available at Whittier Tech.
4. Whittier Tech offers brochures which describe vocational career technical programs and also include academic programming, sports, extracurricular activities and clubs, special education resources, and any pertinent information about the school that allows students to make informed decisions based on its offerings.
5. Whittier Tech has a comprehensive website available as a public resource
6. Whittier Tech will provide translation and interpreter services to parents and students whose primary language is not English.
7. Publications will be in both English and Spanish. Whittier Tech ensures that all admissions materials are in both English and primary language of the home. Publications will be translated in other languages as needed.

## **V. Application Process**

### **A. APPLICATION PROCESS FOR FALL ADMISSION TO THE NINTH, TENTH, ELEVENTH GRADE**

1. Students interested in applying to Whittier Tech for admission to the ninth, tenth or eleventh grade can do so by applying online, obtaining an application from their local School Counselor or by accessing Whittier Tech's web page for an application.
2. After the application has been submitted, an applicant may:
  - a. Review the status of their applications by logging on to the account that they created when they submitted an online application. The applicant can also get status updates from the local School Counselor or the Director of Guidance and Admission at Whittier Tech. If an applicant does not have a school counselor, or in the case of homeschooling, the applicant should contact the Director of Guidance and Admissions at Whittier Tech.
  - b. Attend a scheduled interview at their local school with a Whittier Tech Admission Representative or call Whittier Tech's Director of Guidance and Admissions to interview on campus.
3. It is the responsibility of local school counselor to:
  - a. Complete their required school recommendation form and submit it to Whittier Tech's Director of Guidance and Admissions
  - b. Obtain the current year report card and prior year final report card and forward or upload those documents for use by the Director of Guidance and Admission at Whittier Tech.
4. A completed application for applicants includes:
  - a. Required signatures.
  - b. Final grades in English, social studies, math and science for the previous year and current year's report card.

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- c. Attendance records indicating number of unexcused absences.
- d. An account of all discipline referral from the previous year and current school years that resulted in suspensions or expulsion pursuant to M.G.L. c71, 37H or 37H1/2, or resulted in suspension or expulsion for more than 10 days for a single infraction or cumulatively pursuant to M.G.L. c71 37H3/4

*The application information stated above is required*

- 5. If incomplete applications are received, the following procedures will be followed:
  - a. The Whittier Tech Director of Guidance and Admission will notify the local School Counselor that the application is incomplete and will request completion.
  - b. The applicant's parent(s)/guardian(s) will be notified by the Whittier Tech Admissions Office in the event that the problem is not resolved by the local school counselor.
  - c. If after notifying the local school counselor and parent(s)/guardian(s) and the application remains incomplete for 10 school days, the application will be voided.

#### **B. Application Process for Admission to the Twelfth grade (Transfer Student only)**

- 1. Students interested in applying to Whittier Tech for admission to the twelfth grade can do so by applying online, obtaining an application from their local school counselor, accessing Whittier Tech's web page for an application or visiting Whittier Tech's guidance department.
- 2. The applicant must have at least one year of vocational school experience in order to be considered for enrollment.
- 3. In order for the student to gain admission, the student would have to meet the criteria detailed in Section VI and there would also have to be openings available in the vocational program that they are studying at their current school. If there are no openings or if the same vocational program that they are studying at their current school has no openings, or if the student's same vocational program is not offered at Whittier Tech, the student would not gain admission.
- 4. Refer to Heading V, Section A, Numbers 2-5 for additional information.

#### **C. Late Applicants**

Late applications will be accepted but may be processed after applications that have been received by the April 1st deadline. Accepted applications, they will be evaluated using the same criteria as other applications, and their composite score will be computed. They will be placed in rank order on the established waiting list. The waitlist will be evaluated as seats become available.

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#### **D. Transfer students**

Applications from students who are enrolled in a state-approved (Chapter 74) vocational technical high school program in another school (transfer students) will be considered for admission (including admission during the school year) if they move into the Whittier Regional Vocational Technical School District and wish to pursue the same program of study at Whittier Tech, provided space in the school and/or program is available. All transfer applicants must attend an informational meeting at Whittier Tech. If the applicant or parent(s)/guardian(s) cannot provide transportation, an official from Whittier Tech will go to the local school to meet the applicant. Such applications will be evaluated in accordance with the provisions of the Admission Policy.

#### **E. Previously Withdrawn Students**

Students who withdraw from Whittier Tech and who are attending or not attending another high school may reapply for admission to Whittier Tech following the procedures contained in the Admission Policy. Those students will be evaluated using their current and previous school year's records.

#### **F. Home Schooled Student**

Students who are formally being home schooled may apply for admission to Whittier Tech provided all admission criteria are followed. The home schooled student's parent(s)/guardian(s) must submit a copy of the home school approval letter from the local school superintendent, provide documentation showing the approval of the curriculum and provide evidence of work reflecting state benchmarks. Home schooled students will be accepted to Whittier Tech according to the selection criteria contained in this admission Policy.

### **VI. SELECTION PROCESS**

#### **I Admissions:**

When more students apply to Whittier Tech than we have available seats, Whittier Tech uses a weighted admissions selective criteria and each applicant will receive a score derived from the sum of 5 subscores. All applicants for grades nine through twelve at Whittier Tech will be evaluated using the criteria contained in this admissions policy. Selective criteria is approved annually by the school committee.

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Whittier Tech does not consider a student's record of excused absences from school, or minor behavior or disciplinary infractions. Whittier may consider student's conduct for which a suspension or expulsion was imposed pursuant to M.G.L. c.71 §37H or §37H1/2, or for which suspension or expulsion for more than 10 days was imposed pursuant to M.G.L. c.71 §37H3/4. Resident students who meet the minimum requirements for admission shall be admitted prior to acceptance of any non-resident students seeking the same program.

The admissions committee considers scholastic achievement, attendance, school behavior, local counselor's recommendation rating and an interview. Applications are reviewed, processed and assigned points based on the following rubric:

**A. Scholastic Achievement: Maximum 30 points**

<b>Grade Averages</b>	<b>Points</b>
90-100 (A- to A+)	30
80-89 (B- to B+)	25
70-79 ( C )	20
65-69 (D or D+)	15
60-64 (D-)	10
0-59 (F)	0

For applications to grade 9 (fall admission), the average of grade 7 and terms 1 & 2 of grade 8 marks in English, social studies, mathematics and science from the local school report card are used. For applications to grades 10 & 11 (fall admission) the average of the previous school year and terms 1 & 2 of the current school year marks in English, social studies, mathematics and science from the local school report card are used.

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**B. Attendance: Maximum 20 points**

<b>Total Days Absent - Unexcused</b>	<b>Points</b>
0 - 10	20
11-15	15
16-20	10
21-25	7
26-30	4
31+	0

For applications to grade 9 (fall admission), the sum of grade 7 and terms 1 & 2 grade 8 unexcused absences from the local school report card are used. For applications to grades 10 and 11 (fall admission) the sum of the previous school year and terms 1 & 2 current school year unexcused absences from the local school report card are used

**Excused and Unexcused Absences:**

Whittier Tech recognizes that on occasion parents may need to keep their child out of school for legitimate reasons. Therefore, in accordance with M.G.L. Chapter 76, Section 1 parent/guardians, may excuse their child from school up to seven days per a school year.

Absences beyond seven days will be marked as unexcused, unless there is documented illness. Whittier Tech does not consider a student's record of excused absences from school.

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**C. School Discipline/Conduct: Maximum 10 points**

Discipline Rating	7th Grade Points	8th Grade Points
No suspensions or expulsions pursuant to M.G.L. c. 71 37H, 37H $\frac{1}{2}$ , and/or 37H $\frac{3}{4}$ .	5	5
1 or more suspensions or expulsions pursuant to M.G.L. c. 71 37H, 37H $\frac{1}{2}$ , and/or 37H $\frac{3}{4}$ .	0	0

*If a student has not been suspended for any infractions under M.G.L. c.71, § 37H or M.G.L. c.71, § 37H- $\frac{1}{2}$  or been suspended or expelled for more than 10 days under M.G.L. c.71, § 37H- $\frac{3}{4}$  then they will receive the maximum number of 10 points available in this category. If a student has been suspended for any infractions under M.G.L. c.71, § 37H or M.G.L. c.71, § 37H- $\frac{1}{2}$  or been suspended or expelled for more than 10 days under M.G.L. c.71, § 37H-  $\frac{3}{4}$  they will receive 0 or 5 points in this category.*

**D. Sending School Recommendation: Maximum 10 points**

Rating	Points
Excellent	10
Above Average	7
Average	4
Below Average	2
Poor	0

A maximum of 10 points will be given from the recommendation of the sending school counselor and/or other sending school personnel who knows the candidate best.

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#### **E. Interview: Maximum 30 points**

<b>Rating</b>	<b>Points</b>
Excellent	30
Above Average	23
Average	18
Below Average	10
Poor	0

The interview permits applicants an opportunity to provide context for their application and allows Whittier Tech to assess applicants' motivation and realism relating to a technical/vocational education.

Applications are reviewed, processed and assigned points for each area. Points are derived from the report cards of the current and previous school year. Points are totaled for each applicant. A maximum total of one hundred (100) points can be earned.

After a point total for each resident applicant has been determined, all resident applicants are placed in order of their point total. The resident applicant with the highest point total is accepted first, the resident applicant with the second highest point total is accepted second, and so on until all seats are filled. All resident applicants are accepted or placed on a waiting list. If openings occur, the seats are filled by accepting resident applicants from the waiting list. These resident applicants, like those accepted earlier, are accepted in order of their place on the waiting list determined by the total points given according to the selection criteria.

Non-resident applicants are evaluated using the criteria in this Admission Policy and will be placed on the waiting list after the resident applicants. Non-resident applicants on the waiting list will be accepted only if all resident applicants on the waiting list have been accepted.

All applicants whose complete applications are received by Whittier by April 1st are notified of their acceptance status by an email and letter to their parents/guardians. Their local school counselor will also be notified soon after applicants receive their decisions. Applications received after April 1st will be evaluated using the same criteria as other applications and their composite score will be integrated in rank order on the established waiting list.

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## **VII. EXPLORATORY PROGRAM**

Because Whittier Tech offers 5 or more Chapter 74 state-approved programs, Whittier Tech provides a half year exploratory program for 9th grade students, which is based on applicable Vocational Technical Education and Massachusetts Curriculum Frameworks.

All ninth grade students enrolled at Whittier Regional VTHS participate in a vocational-technical Exploratory Program from September through January designed to introduce each student to several career pathways, including non-traditional careers, while helping them discover their talents and interests. In quarters 1 and 2, all students participate in a bi-weekly Exploratory Program where they visit all career technical programs.

## **VIII. PROGRAM-SPECIFIC ADMISSION**

Whittier Tech uses the following system for students to identify and enroll in their Chapter 74 technical program:

During the exploratory period, career technical instructors evaluate each student based upon a common rubric/scoring guide including the following:

- 25% Health/Safety Strand 1
- 25% Technical Skills Strand 2
- 25% Embedded Academics Strand 3 (reflective writing)
- 25% Employability Strand 4

Based on the above criteria, students may receive a maximum total of 100 points over each exploratory cycle. Exploratory scores are then tabulated, organized, and reported to each individual student and his/her parent/guardian. At the conclusion of the Exploratory Program, each student selects his/her program of choice; as well as second and third choices from the explored technical programs for which he/she earned a passing grade. Student requests are sorted to rank order the students according to their score in the career technical program the student requested as his/her first choice. Students are admitted into the career technical program of their choice based on the point total they received in their first choice career technical program. When a career technical program exceeds its capacity for enrollment, the following steps are taken for placement:

1. Students are placed in their 2nd and 3rd choices according to their choice of career technical program.
2. Their rank order (using exploratory scores) is then compared to other students requesting that career technical program.
3. In all cases, tie scores are broken by the cumulative average of all exploratory evaluations. If a tie remains the academic grade point average (consisting of English Language Arts, math, science and social studies); and student discipline will be used to break the tie according to the admission policy rubric.

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4. Program waitlists are created when students are placed in a career technical program other than their first choice, yet would like to be in a different career technical program. Students on a waitlist are rank-ordered by their exploratory evaluations. Waitlisted students are notified if an opening occurs in their desired choice and given the option to change or remain in their current placement up to the commencement of grade 10 CTE programming. 5. If a student did not receive any of their three choices and wishes to explore additional career technical programs, they may do so for two additional cycles provided there is space available. After placement, students continue in the career technical program in which they were placed for the remainder of their school tenure unless they request a transfer. Students who wish to transfer from one career technical program to another may apply for transfer through their school counselor by completing a Request for Technical Program Transfer form. Transfer requests will be considered subject to availability of openings in the requested program(s). Students who enroll in Whittier Tech after grade 9 will be accepted into a specific technical program upon admission. If, after enrollment, the student desires a technical program change, the students may apply for transfer through their school counselor by completing a Request for Technical Program Transfer form. Transfer requests will be considered subject to availability in the requested career technical program(s).

## IX. ADMISSIONS REVIEW AND APPEALS PROCESS

Upon receipt of notification from Whittier Tech indicating that the applicant was placed on a waiting list, the parent or guardian of the student may request a review of the decision. This will be done by sending a letter or email requesting a review to the Principal within thirty days of the receipt of the notification. The Principal will respond in writing with the findings of the review within thirty days.

To request a Principal review of the decision:

By email	By mail or hand delivery
principalsoffice@whittiertech.org	Principal Whittier Tech 115 Amesbury Line Road Haverhill, MA 01830

Within thirty days after the Principal's review decision, if the parent/guardian wishes to appeal the findings of the review, they may do so by sending a letter or email requesting that they be scheduled to appear before the Superintendent. The Superintendent will respond in writing to the parent/guardian with a scheduled date for the appeal within thirty days of the receipt of the letter. The Superintendent will then respond in writing within thirty days of the meeting when the appeal was presented whether the decision will stand or be overturned.

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To request an appeal of the Superintendent:

By email	By mail or hand delivery
superintendentsoffice@whittiertech.org	Superintendent Whittier Tech 115 Amesbury Line Road Haverhill, MA 01830

## **X. ADMISSION TO SPECIFIC PROGRAMS WITHIN WHITTIER TECH**

Students who have been admitted to Whittier Tech will need to apply to a specific program of study during the second semester of Freshman year.

If the student applies to a program and is denied or waitlisted, the student may appeal their rejection to the Superintendent in the following ways:

By email	By mail or hand delivery
superintendentsoffice@whittiertech.org	Superintendent Whittier Tech 115 Amesbury Line Road Haverhill, MA 01830

## **XI. Maintenance of Records**

Whittier Regional Vocational Technical High School maintains records of all students who apply, enroll, or are waitlisted, as well as their score on admission criteria, to facilitate analysis of its admissions system and compliance with applicable laws and regulations. Whittier Regional Vocational High School will provide this information to the Department of Elementary and Secondary Education upon request.

\* Selective criteria shall be approved annually by the school committee.

*Approved by SC 11/10/21*

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