In his office, Edward R. Murrow displayed a statement by Henry David Thoreau which said: "It takes two to speak the truth - one to speak and the other to hear."

This idea represents a common thread in all of the courses listed below. They encompass a wide range of interests and materials, yet they are all centered around a theme of communication. The improvement of your ability to communicate effectively through the written and spoken word is the primary aim of this department.

Course Selection

1. Every student must successfully complete a minimum of eight (8) semesters of Communications Arts for graduation.

2. Students who need special help in the improvement of basic skills in reading, writing or speaking may be required to take Academy courses that are linked with Social Studies.

9th Grade

FALL

Global Classics 1 (EES81H) - This course is designed as an honors course with more emphasis on critical reading and writing skills. This is achieved through a study of the canonical literature. The following texts are taught in this class: *Julius Cesar, Gilgamesh*, and mythology.

Introduction to Literature and Composition 1 (EES81QD/EES81QT) - This course is designed for students to begin developing their reading and writing skills. Through the study of short stories and other works students learn how to analyze literature and do close readings. Students will also learn the basics of descriptive, narrative, argumentative, and expository writing. The texts for the course are short stories, poetry, a novel (options are *The Hunger Games, Of Mice and Men, The Secret Life of Bees*) and an independent reading project.

Theater Classics 1* (EES81QF) - This course is designed for screened theater students in their first year of study. It is a combination of reading dramatic works, learning the history of theater, and introduction to acting techniques. There is a strong emphasis on critical reading and writing skills. The textbook for the class is *The Stage and School*.

SPRING

Global Classics 2 (EES82H) - This course is designed as an honors course with more emphasis on critical reading and writing skills. This is achieved through a study of the canonical literature. The following texts are taught in this class: *Things Fall Apart*, poetry, proverbs, African folk tales and myths, Lit. of Asia & India, and *Nectar in a Sieve*.

Introduction to Literature and Composition 2 (EES82QD/EES82QT) - This course is designed for students to begin developing their reading and writing skills. Myths play an important role in our culture in the world. Students will investigate the mythology of several cultures and discuss their implications on Western culture. Literary elements will be explored through a novel and short works. The course works on strengthening students reading and writing skills through a study of classic mythology. The course focuses primarily on Myths, legends & heroes of Britain, Mid-East, Greece & Rome. The texts for the course are short stories, poetry, *The Odyssey or Oedipus Rex*, and excerpts from other classic texts.
Theater Classics 2* (EES82QF) - This course is designed for screened theater students in their first year of study. It is a combination of reading dramatic works, learning the history of theater, introduction to acting techniques and writing. Clybourne Park and West Side Story are taught, as well as use of The Stage and School.

10th Grade

FALL

English 3 Academy (EES83QA) - This course is designed to strengthen students reading and writing skills though an interdisciplinary study with Social Studies. The following texts are used in this course: Night, Animal Farm, Macbeth, Frankenstein, and a variety of poems, short stories, and non-fiction texts.

Global Humanities 1 (EES83H) – This course focuses on the Modern World, Development of Realism in literature and the arts, including, Voltaire, Victor Hugo, and John Hersey. Literature of social protest as well as "experimental" tendencies (Ionesco) will be studied. This course confronts the problems of warfare, conformity, and social change in modern society.

Western World Literature 1 (EES83QD) - Students will strengthen their reading skills through an analysis of canonical literature. Students will read Macbeth, Lord of the Flies, and various other classic works of literature.

Journalism (EES83QH) – This course is designed to give students an understanding of role of news and newspapers and its important in our society. Students will explore how new works, analyze and interpret why certain issues make the news, and write newspaper stories. Students will be exposed to expository and argumentative styles of writing. Students will be reading The New York Times on a regular basis and various other texts.

Journalism for Writers Institute* (EES83QHW) – List Course. Students applied to be in the class during the 9th grade.

Holocaust Literature (EES83QN) – This course focuses on literature around the events of the Holocaust. It looks at the representation of the Holocaust through memoirs, film, and poetry. There is also a focus reading and writing skills. Students will read Night, The Pianist, and an independent reading book of their choosing.

Dramatic Literature and Acting 1 (EES83QP) - Through an analysis of dramatic text, presentations of scenes and monologues, and character and script analysis students will strengthen their acting, reading and writing skills. Various dramatic works are used throughout this course.

Shakespeare* (EES83QK) – This course is available only to students in the screened theater program. The course studies the works of Shakespeare with an emphasis on both the written word and how it translates to the stage. Students will read the sonnets, tragedies, and histories. The course also includes writing instruction and research skills.

SPRING

English Academy 4 (EES84QA) - This course is designed to strengthen students reading and writing skills though an interdisciplinary study with Social Studies. The following texts are used in this course: Night, Animal Farm, Macbeth, Frankenstein, and a variety of poems, short stories, and non-fiction texts.
Global Humanities 2 (EES84H) - Taken in Conjunction with Social Studies 10th year students who have a special interest in social studies and literature should take this course. It focuses on the Modern World, Development of Realism in literature and the arts, including, Voltaire, Victor Hugo, and John Hersey. Literature of social protest as well as "experimental" tendencies (Ionesco) will be studied. This course confronts the problems of warfare, conformity, and social change in modern society.

Western World Lit 2 (EES84QD/EES84QT) - This course is a continuation of Western World 1. Students will strengthen their reading skills through an analysis of canonical literature. The second semester focuses on more contemporary texts. Lord of the Flies, Fahrenheit 451, A Midsummer's Night Dream, and Their Eyes Were Watching God are taught in this class.

Human Rights Violations Studies (EES84QG) This course is designed as an overview of contemporary Genocides. Students will study the effect of conflict on narrative voice. Students will be exposed to the issues of Cambodia, Rwanda, Darfur, and others. Texts taught are First They Came for My Father, excerpts from What is the What, excerpts from We wish to inform you that tomorrow we will be killed with our families, and various poetry, short stories, and film clips.

Dramatic Literature and Acting 2 (EES84QP) - Through an analysis of dramatic text, presentations of scene and monologue, performance and audition skills students will strengthen their acting, reading and writing skills. Various dramatic works are used throughout this course. PREREQUISITE: Acting

Art of Writing (EES84QFH) – List only. Screened Writers Institute class. Through a more creative approach to composition students will learn how to write both narrative and narrative non-fiction. Students will read a variety of mentor texts and create their works of literature.

11th Grade

FALL

Junior AP English 1* (EES85X) - This course is a study of rhetoric, non-fiction, and the art of persuasion. Students will be expected to write in a variety of modes. There is a heavy focus on close reading and textual analysis. Students will take the English Regents in January and the AP English Language and Composition exam in May. Students will use The Language of Composition, Everything's an Argument, and read various works of both fiction and non-fiction.

American Humanities 1 (EES85H) - This is a suggested course for students who wish to continue the scholarship sequence. Throughout the year, the student will approach short stories, essays and novels that relate to various American themes. Students will take the English Regents in January. Works include The Scarlet Letter, The Crucible, and The Adventures of Huckleberry Finn.

American Literature (EES85QD/EES85QT) - This is a suggested course for students who wish to continue the scholarship sequence. Throughout the year, the student will approach short stories, essays and novels that relate to various American themes and written by American authors.

Psychology in Literature (EES85QP) – This course is a study psychoanalytical literary criticism. The course begins with a background in psychology and then applies that study to short stories, poetry, and full-length
texts. Students will focus on close readings and writing through the lens of psychoanalysis. There is also an emphasis on preparation for the English Regents. Possible texts for the class are poems, short stories, *One Flew Over the Cuckoo’s Nest*, and *Finding Fish*.

**Playwriting (EES85QF)** – In this course students will study the aspects of storytelling in a play form. Students will focus on the basics of storytelling to help them generate dramatic ideas and increase their creativity. Students will read exemplars of various dramatic texts and do close readings in order to develop their writing skills. There will also be preparation for English Regents.

**New York Literature (EES85QE)** – This course focuses on a study of literature that has poured out of New York City. Students will explore what makes this city unique and why it has sparked so much great literature. Students will develop their literary analysis and writing skills as they study this literature. Students will also be preparing for the English Regents. The texts for this class are *Extremely Loud and Incredibly Close*, *Brighton Beach Memoirs*, *Do the Right Thing*, and short stories.

**Creative Writing (EES85QPW)** – List Only Course for Writers Institute. Students will read a variety of poems and learn all about the different forms and elements of poetry. Students will then work on their own poetry portfolios. Students will also be exposed to short fiction and work on their own short works of fiction.

**SPRING**

**Junior AP English 2* (EES86X)** - This course is a continuation of AP English 1 with an emphasis on the study of rhetoric, non-fiction, and the art of persuasion. This course culminates in the AP English Language and Composition exam Students will continue to use *The Language of Composition, Everything’s an Argument*, and read *Huckleberry Finn*.

**American Humanities 2 (EES86H)** - Taken in Conjunction with American Humanities History. This is a suggested course for students who wish to continue the scholarship sequence. Throughout the year, the student will approach short stories, essays and novels that relate to various American themes. Works include *The Assistant, The Grapes of Wrath, Ethan Frome*, and selected modern poems.

**American Multicultural Lit (EES86QD/ EES86QT)** - This course explores themes in the American experience from a multiplicity of cultural viewpoints. There is an emphasis on critical reading and writing skills, including Regents Preparation. Texts include *Joy Luck Club, Down these Mean Streets, The Namesake, and The Kite Runner*.

**Advanced Playwriting (EES85QF)** – Through a study of dramatic works and playing skills student develop their own original 1-act plays. This course also includes Regents Preparation. PREREQUISITE: Playwriting

**Lit. of Youth and Identity (EES86QG)** This course explores the psychology of adolescence through literature. There is an emphasis on reading and writing skills with specific Regents Preparation. Texts taught are *The Catcher in the Rye* and *Go Ask Alice*.

**Detective and Mystery (EES86QK)** This course is an overview of the mystery genre, focusing on major writers and styles. There is an emphasis on reading and writing skills in preparation for the English Regents. Texts taught are *Sherlock Holmes, A Devil in a Blue Dress*, and selected short stories.

**12th Grade**
FALL

Sr AP English 2* (EES88X) - This course studies the art of literature and composition. There is a focus on imaginative literature and various elements, with an emphasis on how to write about literature. This course culminates in the AP English Literature and Composition exam. Texts taught are Crime and Punishment, Hamlet, and various other works.

Contemporary Literature 1 (EES87QD/EES87QT) – This course explores the line between fiction and non-fiction, reality and fantasy, and truth and lies through the examination of dynamic contemporary works of literature. Students will write both analytical essays and narratives. Texts taught in this class are Beloved, Angela’s Ashes, and a variety of short works.

Women in Literature (EES87QE) – This course explores the roles of women in a patriarchal culture through a variety of literary and film texts. Through the lens of gender studies students will demonstrate their understanding in a series of essays and projects that explore how women create meaning in their own lives. The following texts are options for this course Bastard out of Carolina, The Awakening, short stories, poetry, and various films.

Memoir & Fiction Writing (EES87QF) - This course focuses on the elements of storytelling. Through a study of short fiction and non-fiction narratives students will be able to hone their narrative writing skills. Students will be expected to write pieces based on their own life, observations, a historical period, and various other models.

African American Literature (EES87QG) – This course focuses on the study of African American literature. Through discussion, literary analysis, and writing students will explore the struggles of this group throughout history and how that affects the writing.

Directing & Script Analysis (EES87QH) – This course will explore how to take apart a script in order to create a director’s vision for a show. Students will be required to do research on various topics related to the scripts they are working with. Students will focus not only on reading and writing, but directorial skills such as ensemble building, blocking, and integration of theater vocabulary that is necessary in order to achieve the desired vision for a show. The students will be studying a variety of classic and contemporary scripts throughout the semester.

Literature and Society 1 (EES88QN) – This course focuses on enhancing students reading and writing skills in preparation for college. There is a focus on teaching foundational works of literature. Students read fiction and non-fiction works about social issues. There will also be units and activities that address tasks from the English Regents in preparation for students to re-take the English Regents.

European Lit 1 (EES87H) – Students study selections from 18th - 20th century European writers. This course focuses on critical reading and writing skills for students who wish to pursue a more difficult level of study. Texts taught are Gulliver's Travels, Wuthering Heights, Heart of Darkness, and The Metamorphosis. This is a yearlong honors class.

SPRING

Sr AP English 2* (EES88X) - This course studies the art of literature and composition. There is a focus on imaginative literature and various elements, with an emphasis on how to write about literature. This course
culminates in the AP English Literature and Composition exam. Texts taught are *The Great Gatsby*, *Invisible Man*, poems, and essays.

**Contemporary Literature 2** (EES88QD/ EES87QT) – This course studies the uses of narrative voices and point of view in literature. Students will work on critical reading and writing skills that are necessary for success in college. Students are primarily taught the art of memoir and read *Memoirs of a Geisha*, *The Things They Carried*, and *Unwanted*.

**Science Fiction & Fact** (EES88QF) - Students read classical and modern science-fiction literature. Students also read and discuss contemporary science articles from newspapers and journals. Texts taught are *Do Androids Dream of Electric Sheep, Science Fiction Anthology*, and selected science essays from the NY Times.

**Ensemble Theater** (EES88QH) - Work on semester-long performance project; performance in Papp with invited audience. Students will read 2-3 plays to build an ensemble.

**Literature and Society 2** *(EES88QN List Class)* – This course focuses on enhancing students reading and writing skills in preparation for college. There is a focus on teaching foundational works of literature. Students read fiction and non-fiction works about social issues. There will also be units and activities that address tasks from the English Regents in preparation for students to re-take the English Regents.

**European Lit 2** (EES88H) – This is a continuation of European Literature 1. Students study selections from 18th - 20th century European writers. This course focuses on critical reading and writing skills for students who wish to pursue a more difficult level of study. Texts taught are *Gulliver's Travels, Wuthering Heights, Heart of Darkness*, and *The Metamorphosis*.

**Electives (Not for Core Credit)**

**FALL**

**News Production 1** *(EJS21)* This course focuses on the writing, editing, and lay out of the school newspaper.

**Introduction to Film** *(EQS11QF)* – This course studies a thematic approach to film—students view, discuss and write about a single theme as explored in films.

**Yearbook 1** *(EWS21)* - This course continues with the process of students writing, editing and designing the school yearbook.

**Creative Writing** *(EWS11)* – Students will read a variety of poems and learn all about the different forms and elements of poetry. Students will then work on their own poetry portfolios. Students will also be exposed to short fiction and work on their own short works of fiction.

**The Art of Comedy** *(CJS11)* – This course studies foundational work in comedic acting and writing. Students will learn about all different forms of comedy including improvisation.

**SPRING**

**News Product 2** *(EJS22)* This course focuses on the writing, editing, and lay out of the school newspaper.
Studies in Film (EQS11QG) – This course studies a thematic approach to film--students view, discuss and write about a single theme as explored in films.

Yearbook 2 (Snrs)* (EWS22) - This course continues with the process of students writing, editing and designing the school yearbook.

Musical Theater (CMS11) Study of the Broadway musical; students also perform musical scenes.

Studio Theatre Program - Students are admitted to the Studio Theatre Program through competitive auditions and academic achievement. Over a four-year sequential curriculum, students develop knowledge and skills through coursework and participation in a unique community dedicated to acting and dramatic arts. Upon completion of the program, students are prepared to take the New York City Theatre Arts Comprehensive exam and be awarded an arts-endorsed diploma.

9th Grade Sequence
- Theatre History & Classics 1
- Theater Arts
- Movement for the Stage

10th Grade Sequence
- Acting Studio
- Advanced Acting
- Shakespeare

11th Grade Sequence
- Devising Theater
- Theatre Genres
- Physical Movement

12th Grade Sequence
- Theatre Research and Criticism
- Senior Theater Seminar 1

EES81QF 9th Grade (Theater Classics 1) - This course is designed for screened theater students in their first year of study. It is a combination of reading dramatic works, learning the history of theater, and introduction to acting techniques. There is a strong emphasis on critical reading and writing skills. The textbook for the class is *The Stage and School*.

EES82QF 9th Grade (Theater Classics 2) - This course is designed for screened theater students in their first year of study. It is a combination of reading dramatic works, learning the history of theater, introduction to acting techniques and writing. *Clybourne Park* and *West Side Story* are taught, as well as use of *The Stage and School*.

CJS21 10th Grade (Acting Studio) - Through the use of exercises, theater vocabulary, and open scenes students will learn the basics of acting. The focus for the class is on the Stanislavski method of acting.

CJS22 10th Grade (Advanced Acting) Analysis of dramatic text; presentations of scene and monologue; performance and audition skills; PREREQUISITE: Acting

CDS21 11th Grade (Devising Theater) - Students will explore the successive phases of creating, rehearsing, and presenting various assigned theater related projects. Students will focus on their collaborative ability, communication skills, imagination, and risk-taking to create their own theater performances.

CQS21 11th Grade (Theater Research & Criticism) Preparation for NYC Comprehensive Theatre Arts Exam; theatre research project.
**CQS22 12th Grade (Senior Seminar)** Preparation for NYC Comprehensive Theatre Arts Exam; theatre research project; independent studies in theatre.

**TECHNICAL THEATRE SEQUENCE**
Concentrations in the following areas are possible: Lighting Design/Stage Lighting, Technical Direction/Production & Stage Management, Costume Design/Costuming and Scene Painting.

Three-year sequence: a student is to choose a concentration and spend 3 semesters focused in that subject. The other 3 semesters are to be chosen from other classes in technical theater (see list).

Five-year sequence: a student is to choose a concentration and spend 4 semesters focused in that subject. The other 6 semesters are to be chosen from other classes in technical theater (see list).

Students should consult with the technical theater teachers to choose courses best suited to their interests.

**SET PAINTING (CSS21/22)**
Students will paint the sets for Murrow’s theatrical productions. Various skills such as stenciling, woodgraining, and marbleizing with latex paint will be taught. Students will learn to grid backdrops and recreate painting elevations to scale. (Elective)

**SET CONSTRUCTION (CTS21/22)**
Set preparation for theatrical productions. Students will learn the safe use of shop power tools and how to build from drafted plans. Using standard theatrical carpentry and rigging techniques, students produce the scenery for dramas and musicals in black box and proscenium theaters. These courses demand class participation and regular production responsibilities after school involving varied tasks and experiences backstage.

**STAGE LIGHTING AND SOUND (CES21/22)**
Students will learn: the theories and mechanics of stage lighting equipment and electricity; how to read and execute stage lighting plans and cue sheets for school productions; the fundamentals of lighting design - supporting the needs of a script through angle, color, and intensity. These courses demand class participation and regular production responsibilities in lighting. Advanced students will design the lighting plots and cue sheets for Murrow drama and musical productions.

**COSTUMING (CSS21/21)**
Students will create costumes for Murrow’s theatrical productions. Each student will learn a variety of hand stitching skills as well as the use of a sewing machine. No prior sewing skills are required. Students who continue with this class will have the opportunity to assist in the costume designs of the shows as well as actually designing themselves. Selected students will work on the wardrobe crew during the performances. (A passing grade in any intro art is a pre-requisite for this class.

**THEATER PRODUCTION (K Band)**
This class, which is open to all students, meets after J band on a regular basis to execute the design for Murrow’s theatrical productions. Students will learn to build sets and props, and to hang and focus lights. Advanced students will have the opportunity to serve as running crew for Murrow’s many productions.
SOCIAL STUDIES

The Social Studies department offers students the opportunity to explore the wide range of disciplines that encompass the life and growth of humankind—economics, history, the humanities, psychology, law, political science, and ethnic studies. The department offers over thirty courses with career-oriented opportunities in behavioral science and law studies.

Students are required to complete 8 semesters of Social Studies course work for graduation, including:

- 4 semesters of Global Studies,
- 2 semesters of American History,
- 1 semester of Economics, and
- 1 semester of Participation in Government.

Moreover, all students must pass a two Regents Examination in Social Studies. Passing both the Global History exam and US History exam enables students to meet the 4+1 requirements for graduation. They must pass one exam to graduate, and the +1 could be the other Social Studies exam.

- Global History – End of the 10th Grade
- US History – End of the 11th Grade

Upon completion of the Social Studies program, students will be able to demonstrate the ability to make informed decisions about economic, social and political questions confronting the individual, the society and the interdependent world. Such decisions will draw upon the lessons of history and the social sciences. The Social Studies program will lead students to develop and reinforce understandings of the following fifteen concepts:

- CHANGE
- CULTURE
- ENVIRONMENT
- INTERDEPENDENCE
- POWER
- CHOICE
- DIVERSITY
- HUMAN RIGHTS
- JUSTICE
- SCARCITY
- CITIZENSHIP
- EMPATHY
- IDENTITY
- POLITICAL SYSTEM
- TECHNOLOGY

**ADVANCED SEQUENCE**

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<td>Global Experience</td>
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<td>10th</td>
<td>Global Humanities</td>
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<td>AP US History</td>
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**GENERAL SCHOLARSHIP SEQUENCE**

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<td>Global Experience / Humanities</td>
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<td>US Experience / Humanities</td>
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<td>12th</td>
<td>Economics or Government</td>
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***Students are invited to challenge themselves with an AP Course regardless of the previous classes taken.***

**Global History & Geography**

The syllabus for grades 9 and 10 provides students with the opportunity to study other nations, and their cultures within a chronological and thematic framework that is designed to develop a global perspective of historical events. This approach aims to cultivate in students’ knowledge, skills and attitudes needed to function effectively in a world characterized by ethnic diversity, cultural pluralism and increasing interdependence. Our curriculum follows the recent revisions that were issued by New York State in the
Social Studies Framework 2014. Curriculum is being adjusted to prepare students for the Global Regents Exam II that will test the material from the 10th Grade Curriculum (1750-Present).

**Grade 9 GLOBAL HISTORY & GEOGRAPHY (2 SEMESTERS)**

**GLOBAL WORLD 1 (1 SEMESTER)**
Introduction to Global History that focuses on the development of ancient and classical civilizations and religions (4000BC - 500 AD). And a study of the expansion and growth of global commercial and cultural exchange and the early Ottoman and Ming Dynasties (Pre-1600).

**GLOBAL WORLD 2 (1 SEMESTER)**
A study of global interactions during the Age of the Renaissance, Reformation, and Rise of Nation - States (1200 - 1650 AD). And, a study of the first global age with encounters between Europeans with the people of Africa, the Americas and Asia (1450-1770 AD).

**GLOBAL ACADEMY 1 and 2 (2 SEMESTERS)**
A ninth grade course of study of the same scope and content as Global World 1 and Global World 2 (above) that block schedules Social Studies and ELA classes to help pupils enhance literacy skills. The collaboration of both disciplines enhances growth with reading, writing and other Social Studies skills.

**GLOBAL EXPERIENCE 1 and 2 (2 SEMESTERS)**
An enriched 9th grade course of study for the avid reader. This course integrates the humanities into the Social Studies and follows the same sequence as above. This course involves a substantial amount of research and writing.

**Grade 10: GLOBAL HISTORY & GEOGRAPHY (2 SEMESTERS)**

**GLOBAL EXPERIENCE 3 (1 SEMESTER)**
A study of the global impact of political, scientific, agrarian, and industrial revolutions as well as the growth of nationalism and imperialism beginning in 1750. And a study of the European policies of imperialism and their effects on the world as well as a study of the causes and consequences of World War I and World War II.

**GLOBAL EXPERIENCE 4 (1 SEMESTERS)**
A study of the causes and effects of WWII and the challenges, conflicts, and changes throughout the world during the Cold War and Post-Cold War periods. And a study of contemporary global issues and interactions as the world begins the third millennium.

**GLOBAL ACADEMY 3 and 4 (2 SEMESTERS)**
A 10th grade course of study of the same scope and content as Global Experience (above) that block schedules Social Studies and ELA classes to help pupils enhance literacy skills. The collaboration of both disciplines enhances growth with reading, writing and other Social Studies skills.

**GLOBAL-HUMANITIES 3 and 4 (2 SEMESTERS)**
An interdisciplinary approach to studying Global History, Literature, and Art. This enriched course satisfies the requirement for 10th grade global studies and is a two-semester sequential course that is taught through the cooperative efforts of the Social Studies and the Communication Arts Departments. This course involves a substantial amount of research and writing with an emphasis on student creativity.
Grade 11: AMERICAN HISTORY (2 SEMESTERS)
The syllabus for grade 11 begins with an overview of the structure and evolution of United States constitutional government to the Civil War and then traces our nation's history to the present with a special focus on key constitutional issues, called the "13 Enduring Issues" of our democracy:

2. "Federalism" - the balance between nation and state.
4. "Civil Liberties" - balance between government and the individual.
7. "The Rights of Women under the Constitution."
10. "Separation of Powers and the Capacity to Govern."
11. "Avenues of Representation."
13. "Constitutional Change and Flexibility."

AMERICAN EXPERIENCE 1 and 2 (2 SEMESTERS)
A one-year sequential course for 11th grade students in preparation for the American History Regents Examination. The students will use films, panel discussions, literature, poetry, music, and cartoons, as well as written primary source documents, to enrich their study on American history from the formation of our system of government to the problems facing our nation today.

ADVANCED PLACEMENT AMERICAN HISTORY 1 and 2 (2 SEMESTERS)
A college level course to introduce students to the major developments and interpretations of American History. Students will be expected to do research projects and to read extensively in general historical works as well as in primary source material. All students will be encouraged to take the Advanced Placement Examination which may lead to advanced standing in the college of their choice. This course is for Juniors and Seniors only, and registration requires the advance approval of the department chairperson.

Grade 12: ECONOMICS (1 Semester) AND PARTICIPATION IN GOVERNMENT (1 Semester)

Economics (1 SEMESTER)
PRINCIPLES AND PRACTICES OF ECONOMICS
A course designed to introduce students to the nature of economics and the function of the market system in the U.S. This course focuses on the topics of scarcity, opportunity costs, supply and demand, business organizations and combinations, comparative economic systems, and business finances, regulation, acquisitions and personal finance. This course will also examine the topics of: labor, money and banking, inflation, business cycles, government monetary and fiscal policies, Federal Reserve System, taxation, and international trade.

ADVANCED PLACEMENT ECONOMICS (2 SEMESTERS)
(2 SEMESTERS: 1 Sem AP Econ. + 1 Sem Participation in Govt) (Seniors Only)
This is a yearlong commitment of AP Economics and a connected Participation in Government course designed together to prepare pupils for the Advanced Placement Economics Exam. AP Economics is a college level course that will introduce students to the basic principles of macroeconomics and microeconomics. The fundamental economic issues of scarcity, opportunity costs, comparative advantage, supply and demand, inflation, unemployment, banking, labor, production, international trade, and the role of
the government will be analyzed and discussed. All students will be encouraged to take the Advanced Placement Examination which may lead to advanced standing in the college of their choice. NOTE: This course is connected to a one semester Participation in Government course that will focus on economic issues in US government that will fulfill the Participation in Government requirement and Economics requirement.

**Government**

**PARTICIPATION IN GOVERNMENT (1 SEMESTER)**

This course will prepare students to function as responsible citizens in a democratic society and to motivate them to participate in the political process. The course will focus on the nature of the American government, the political process, and constitutional developments and will be enriched with problem-solving simulations, mock legislative hearings, poll taking, letter writing, independent projects, and other practical participatory learning experiences.

**AP UNITED STATES GOVERNMENT AND POLITICS (2 SEMESTERS)**

(2 SEMESTERS: 1 Semester AP US Govt. + 1 Semester Principles of Economics) (Seniors Only)

This is a yearlong commitment of AP Government and a connected Principles of Economics course designed together to prepare pupils for the Advanced Placement US Government and Politics Exam. AP Government is a college level course that is designed to give students a critical perspective on government and politics in the United States. The course will focus on the constitutional foundations of the American government, political beliefs and behaviors, political parties and interest groups, civil rights and civil liberties, and the institutions and policy processes of the national government. All students will be encouraged to take the Advanced Placement Examination which may lead to advanced standing in the college of their choice. Registration requires the advanced approval of the department chairman. NOTE: This course is connected to a one semester Economics course that will focus on the role of the Federal government in Economics and will fulfill your Economics requirement and the Participation in Government requirement.

**ELECTIVE COURSES: LEGAL STUDIES, BEHAVIORAL SCIENCES, SOCIAL HISTORY**

Students may "major" in Social Studies by taking a 5th year of Social Studies courses in any of the following three areas of concentration: "Legal Studies," "Behavioral Science (Psychology)," and "Social History."

**Program of Legal Studies**

The Program of Legal Studies exposes students to the fundamental concepts of civil, constitutional and criminal law to ultimately encourage a lifelong appreciation of jurisprudence in their professional, educational and personal lives. Students at the end of each academic year are eligible for academic recognition, based on the number of classes taken and extracurricular participation within legal studies. Students apply for the “law degree” by submitting their transcripts and an essay for review.

**CONCEPTS IN LAW (1 Semester)**

An introduction to the basic concepts of the U.S. legal system. This course is a pre-requisite to all courses in The Program of Legal Studies.

**MOOT COURT**

MOOT COURT is offered to students who are members of the MOOT COURT TEAM. Students receive intense training in trial preparation while preparing for the NYS MOOT COURT Competition.

**MOCK TRIAL**

MOCK TRIAL is offered to students who are members of the MOCK TRIAL TEAM. Students receive intense training in trial preparation while preparing for the NYS Mock Trial Competition.
Behavioral Science Research:

**AP CAPSTONE**  (2-year sequence Sophomore and Junior years)

This is a two-year research sequence which prepares students with the skills required to conduct a long term project. Students receive two years of AP credit and become eligible for an AP Capstone diploma. Students will work in collaborative groups to research topics from a variety of lenses. Students will also hone their research, writing and presentation skills by completing group and individual projects.

**AP RESEARCH (Sophomore)**

The first year requires students to conduct research to complete group projects that culminates with a presentation and an exam.

**AP SEMINAR (Junior)**

The second year requires students to conduct their own open-ended research project that will culminate in a presentation and defense of the project. Students will also be required to submit their projects to the Intel Social Science Research Program.

**INTEL BEHAVIORAL SCIENCE: (1 SEMESTER SENIOR YEAR)**

Students will revise and submit the independent research project completed in AP CAPSTONE with the guidance of a faculty advisor.

**INTRODUCTION TO PSYCHOLOGY**  (1 Semester)

In this course students are introduced to a number of areas of psychology including learning, development, attitude formation, intelligence, memory, mental illness and its treatment. Students will study the ideas of Freud, Erikson, Jung, Pavlov, and Skinner, among others. This course is a prerequisite for all other psychology (HB) classes. Students will study the psychology of student experiences in preparation for college. Students will also earn 3 college credits through Berkley College.

SCIENCE

The Science Department at Edward R. Murrow High School is fortunate to have a magnificent and unique physical plan which includes a Planetarium, a Greenhouse, a Marine Biology Laboratory, and a Student Research Laboratory, as well as Chemistry, Physics, Earth Science and Living Environment laboratories. We pride ourselves on the variety of Science classes, which are designed to meet the wide range of students’ interests.

**Course Selection**

1. Every student must successfully complete a minimum of three units of study for a high school diploma. One unit of study must include Living Environment. A second unit must consist of one of the Physical Setting courses - Chemistry, Earth Science or Physics.

2. Students interested in Murrow Med Certification should take a science class every semester of their stay at Murrow.

**Course Descriptions** - Except for selected students, all students entering Murrow follow the Regents sequence of
Science courses. Although most entering students will take Regents Living Environment, alternatives include Regents Chemistry for strong math students or Regents Earth Science. Regents Physics is recommended as a culminating course.

**Regents Level Courses**

**Living Environment** SLS21/2 2 SEMESTERS
A one year, standards based course where students study how organisms carry on basic life processes, evolve, reproduce and interact with one another and their environment. Students complete a minimum of 1200 minutes of laboratory instruction, as mandated by the New York State Education Department. This course culminates in a Regents exam. Students enrolled in this class will take the New York State Regents Examination upon completion of its sequence. This course is also offered in Chinese and Spanish. A Cooperative Team Teaching class is also offered.

**Physical Setting: Earth Science** SES21/2 2 SEMESTERS
A one year, standards based course where students study the history of the Earth and dynamic processes that formed and changed our planet, including plate tectonics, weather and astronomy. Students complete a minimum of 1200 minutes of laboratory instruction, as mandated by the New York State Education Department. Students enrolled in this class will take the New York State Regents Examination upon completion of its sequence. This course is also offered in Chinese. A Cooperative Team Teaching class is also offered.

**Requirements:** Successful completion of Living Environment and Algebra

**Physical Setting: Chemistry** SCS21/2 2 SEMESTERS
Prerequisites: Living Environment and 2 semesters of Algebra or its equivalent. A one year, standards based course where students study the structure of matter, physical and chemical changes, acid-base chemistry, oxidation and reduction, radioactivity and organic chemistry. Students complete a minimum of 1200 minutes of laboratory instruction, as mandated by the New York State Education Department. Students enrolled in this class will take the New York State Regents Examination upon completion of its sequence. A Cooperative Team Teaching class is also offered.

**Requirements:** Successful completion of Living Environment and/or Earth Science and Algebra, with a 75+ on Regents exams

**Physical Setting: Physics** SPS21/2 2 SEMESTERS
Prerequisite: Living Environment (Chemistry and/or Earth Science is recommended) and 4 semesters of Algebra & Geometry or its equivalent. A one year, standards based course where students study motion, forces, energy, light and electricity. Students complete a minimum of 1200 minutes of laboratory instruction, as mandated by the New York State Education Department. Students enrolled in this class will take the New York State Regents Examination upon completion of its sequence.
**Requirements:** Successful completion of Earth Science and/or Chemistry and Geometry with a 75+ on Regents exams

**Third Year Non-Regents Courses**

**Marine Science**  
**SWS21/2 QB**  
2 SEMESTERS

Students will be study marine biology and oceanography, exploring how the physical and biological characteristics of the ocean interact to affect marine life.  
**Requirements:** Successful completion of Living Environment.

**Astronomy**  
**SRS21/2**  
2 SEMESTERS

Students will explore the cosmos in the Hubble Planetarium and in the classroom, discovering the worlds of the solar system, the stars of the Milky Way, and the origin and evolution of the universe.  
**Requirements:** Successful completion of Earth Science and Algebra

**Environmental Science**  
**SQS21/2 QE**  
2 SEMESTERS

Students will examine topics related to living ecology, energy and technology, environmental pollution and environmental analysis.  
**Requirements:** Successful completion of Living Environment, Earth Science and Algebra

**Forensic Science**  
**SFS21/2**  
2 SEMESTERS

Students will investigate scientific methodologies used to solve crime, including DNA analysis, handwriting and fingerprinting analysis, blood spatter studies and crime scene recreation.  
**Requirements:** Successful completion of Living Environment and Algebra

**Intro to Computer Science** (New)  
**SKS21QP/2**  
2 SEMESTERS

A general elective offered to all grade levels. The course provides a solid foundation in object-oriented programming and prepares students for AP Computer Science Applications. Students will code in text-based Python. The course also provides career focus, where at the end of units, students meet (via videos) individuals from different industries who work in coding (medical, music, etc.) This course is part of the Amazon’s Future Engineer Program.  
**Requirements:** Algebra 1 prerequisite or concurrent enrollment.

**Non-Regents Physics** (New)  
**SPS21QN/2**  
2 SEMESTERS

This course is a fully hands-on/inquiry based approach to learning physics. Students are provided with lab materials to conceptualize and formulate different strategies to apply physical concepts in investigating the answers to real world issues. Students will present and discuss their findings to their classmates. The responsibility of learning is placed on students; they must explain to their classmates what they have learned in such a way that ensures all classmates fully understand the material.  
**Requirements:** Successful completion of Earth Science and/or Chemistry and Geometry with a 75+ on Regents exams. This is a lab-based approach to Physics. All labs are performed during class time.
Pre-Engineering SKS21/2  2 SEMESTERS
Students will explore concepts of mechanical engineering, electrical engineering, civil engineering (bridge building), architectural engineering and basic programming through project based learning. They will use the engineering design process to complete projects in each of these areas. **Requirements:** Successful completion of Living Environment and Algebra

### Advanced Electives

**Food Science** SQS21QF  1 SEMESTER
Students will discuss the processing, production, evaluation and use of food, covering the chemistry, biology and physics of nutrition. **Requirements:** Successful completion of Living Environment and Algebra

**Genetics** SWS11QE  1 SEMESTER
Students will study genetics laws and principles as they relate to modern theories. **Requirements:** Successful completion of Living Environment and Algebra

**Organic Chemistry** SDS11QC  1 SEMESTER
Students will analyze the science behind hydrocarbons, alcohols, aromatics, synthesis and mechanism. **Requirements:** Successful completion of Chemistry and Geometry

**Anatomy & Physiology** SWS11QA  1 SEMESTER
Students will examine the essential principles of human anatomy and physiology, including basic chemistry, cell and tissue studies, and an overview of all the body systems. **Requirements:** Successful completion of Living Environment and Algebra

**Space Science** (Future)  1 SEMESTER
Students will uncover the latest astronomical discoveries, from the lives of the stars to planetary landscapes, and from the skies of the Hubble Planetarium to the beckoning universe outdoors. **Requirements:** Successful completion of Earth Science and/or Astronomy and Geometry

**MURROW MED** - This is an **Honors Science Certificate** given to those students interested in careers related to medicine, pharmacy, dentistry, psychiatry, veterinary medicine or pure research who have excelled in science. Graduates must complete a minimum of six years of science study at Murrow. Within this six-year sequence, students must double–up on science by taking Living Environment, Chemistry & Physics, one year of Advanced Placement science, two semesters of Murrow Med electives, and one additional year that must be Earth Science, a second AP course or additional electives. Prior to graduation, students must file a Murrow Med certification form with the
Science Department to verify completion of the above requirements. Students will be eligible for special awards at graduation.

**Special Programs**

**M.S.T.A.R. PROGRAM (Mathematics Science Technology and Research)** - This program is designed for students who are interested in the Murrow Med program but would like to major in Science Research. Students who are part of the MSTAR program will complete the full Murrow Med program but take Science Research as their concentration of electives. Each student in the MSTAR program will be provided with the opportunity to do independent work at a research lab in the New York metropolitan area. Students will be expected to enter their projects in the school-wide science fair, as well as other competitions such as the Intel Science Talent Search, Otto Burgdorf Competition, ATC-SO and the New York City Science and Engineering Fair.

**Science Research Program (MSTAR)**

Research Living Environment for 1st year research students: SLS21QJ  
Research Chemistry for 1st year research students who have passed Living Environment: SCS21QJF  
Research Chemistry for 2nd year research students: SCS21QJ  
Research Physics for 2nd year research students who have passed Regents Chemistry: SPS21QJF  
Research Physics for 3rd year research: SPS21QJ  

**Prerequisite:** Approval of the Science Department A. P. & MSTAR Coordinator.  
**Requirements:** Successful completion of Subject Area requirements with a G and 80+ on Regents exams. **Extensive lab activities, reading and writing involved.**

**INTEL SCIENCE SEMINAR**  
SQS11  
1 or 2 SEMESTERS

Juniors and seniors who have already completed a science project will be provided with guidance and assistance in preparing the application and report for the Intel Science Talent Search. Students will be assisted with statistical analysis of their data. **Extensive lab activities, reading and writing involved.**

**Prerequisite:** Approval of the Science Department A. P. & MSTAR Coordinator.  
**Requirements:** Successful completion of Subject Area requirements with a G and 80+ on Regents exams

**Sustainability Program (New)**  
SWS21Q/TM  
2 SEMESTERS

How can we live our lives to the fullest without using up all of earth’s natural resources, so nothing is left for our children? This survey course will introduce students to the rapidly emerging field of environmental sustainability. Students will explore how human beings can continue to improve international standards of living without causing irreversible damage to the earth’s limited natural
resources. While this course is grounded in science and technology, it also will incorporate sociology, economics, politics, ethics, and philosophy.

- Students will analyze the environmental impact of the globalized American lifestyle.
- Students will critically examine the global use of fossil fuels and consumer-based economies.
- Students will explore climate science trends with an emphasis on data analysis.
- Students will contrast fossil fuel use with renewable energy sources.
- Students will examine industrial agriculture and food production systems.
- Students will learn about cutting edge waste management systems/recycling.
- Students will focus on the economics and social equity of sustainable interventions.

At the end of the semester students will design a sustainable project for their community. The project will include a description of the community issue based on the three pillars of sustainability (environment, equity, economics) data analysis, current estimated ecological footprint, detailed description of the community/issues of equity, the sustainable technologies to be utilized, projected outcomes, projected new ecological footprint, estimated environmental/social/economic impacts.

**Robotics & Engineering Program (New)**  SKS21QTM & SKS41/2  2 SEMESTERS

The Robotics and Engineering Program at Edward R. Murrow High School seeks to provide all levels of students an introduction to engineering ideas, design innovations, and hands-on problem-solving. The program is intended to expose students to the framework within which engineers typically operate. Students will work in teams and design and built projects that are cost efficient. Students will be introduced to problems where multiple solutions are possible. Although the program is “field independent”, it does introduce students to problems and ideas from specific engineering disciplines.

The goal of the program is to provide students with working knowledge of contemporary engineering practice, the problem solving process, and the tools and technologies engineers employ, as well as an understanding of the design process including competition, cost, quality, scheduling and manufacturability considerations and the opportunity to compete and practice in an actual design project - building a robot (NY FIRST Robotics and US NAVY Sea Perch competitions).

**Advanced Placement Courses**

**Advanced Placement Biology**  SBS21/2X  2 SEMESTERS

Requirements: Successful completion of Living Environment, Chemistry and Geometry with a G and 85+ on Regents exams. **Extensive lab activities, reading and writing involved.**
ADVANCED PLACEMENT Chemistry SCS21/2X 2 SEMESTERS

Requirements: Successful completion of Living Environment, Chemistry and Geometry with a G and 85+ on Regents exams. Extensive lab activities, reading and writing involved.

ADVANCED PLACEMENT Physics SPS21/2X 2 SEMESTERS

Requirements: Successful completion of Living Environment, Regents Physics and Geometry with a G and 85+ on Regents exams. Extensive lab activities, reading and writing involved.

ADVANCED PLACEMENT Environmental Science SQS21/2X 2 SEMESTERS

AP Environmental Science is an up-to-date introduction to the most important concepts in the environment. The approach is interdisciplinary in nature and integrates the natural sciences with environmental ethics, environmental economics, environmental law, environmental impact and environmental planning. Extensive lab activities, reading and writing involved.

Requirements: Successful completion of Living Environment, Earth Science and Geometry with a G and 85+ on Regents exams.

ADVANCED PLACEMENT Computer Applications TWS21/2X 2 SEMESTERS

This course is for anyone who wants to create (not just use) technology. We will learn the rules and instructions that are used to construct apps and computer programs. Why does pressing a "button" on a touch screen make something happen? We will then apply those instructions into creating our own apps with a partner. Along the way we will learn about how data is used, how the internet works, and how computers were first made. Extensive reading and writing involved.

Requirements: There are no specific pre-requisites (officially), but a student should have mastered basic algebraic concepts (as evidenced by a passing Algebra Regent score). Juniors and Seniors only.

The Advanced Placement courses in biology, chemistry, and physics are rigorous, college-level, laboratory-based courses. Students meet for a double band each week and cover a comprehensive curriculum. Students are required to attend an information session, make a full year commitment and successfully complete a summer assignment. All students who complete our AP courses are eligible to apply for and take an advanced placement examination which may earn them college credit.

For more information, please contact:

Mr. Carlos Reyes
A.P. Science Department
Edward R. Murrow H.S.
718-258-9283 Ext. 3850
MATHEMATICS

COMMON CORE ALGEBRA 1– MES31, MES32, MES33
A one and a half year course that prepares students to take the Algebra 1 Regents assessment after three semesters. It teaches all topics associated with algebra, linear and quadratic functions, coordinate geometry, probability and statistics as delineated in the Integrated Algebra Core Curriculum. This course terminates in the New York State Common Core Regents Exam.

COMMON CORE ALGEBRA 1(Bilingual Spanish) – MES31QS, MES32QS, MES33QS
A one and a half year course that prepares bilingual Spanish students to take the Algebra 1 Regents assessment after three semesters. It teaches all topics associated with algebra, linear and quadratic functions, coordinate geometry, probability and statistics as delineated in the Integrated Algebra Core Curriculum. This course terminates in the New York State Common Core Regents Exam.

COMMON CORE ALGEBRA 1 – MES21, MES22
A one year course that prepares students to take the Algebra 1 Regents assessment. It teaches all topics associated with algebra, linear and quadratic functions, coordinate geometry, probability and statistics as delineated in the Integrated Algebra Core Curriculum. This course terminates in the New York State Common Core Regents Exam.

COMMON CORE ALGEBRA 1(Bilingual Chinese) – MES21QC, MES22QC
A one year course that prepares bilingual Chinese students to take the Algebra 1 assessment. It teaches all topics associated with algebra, linear and quadratic functions, coordinate geometry, probability and statistics as delineated in the Integrated Algebra Core Curriculum. This course terminates in the New York State Common Core Regents Exam.

ENRICHED COMMON CORE ALGEBRA 1– MES21H, MES22H
A one year enriched course that prepares students to take the Algebra 1 assessment. This course terminates in the New York State Common Core Regents Exam.

COMMON CORE ALGEBRA 2– MRS31, MRS32, MRS33
A one and a half year course that prepares students to take the Algebra 2 Regents assessment after three semesters. The focus continues to apply to real world problems designed to enhance problem solving skills. The use of the graphing calculator is mandatory. This course terminates in the New York State Common Core Regents Exam upon completion of its sequence. The Algebra 2 course is required for students intending to apply for an Advance Regents Diploma.
COMMON CORE ALGEBRA 2 – MRS21, MRS22
A one year course that prepares students to take the Algebra 2 assessment Regents exam. The focus continues to apply to real world problems designed to enhance problem solving skills. The use of the graphing calculator is mandatory. This course terminates in the New York State Common Core Regents Exam upon completion of its sequence. The Algebra 2 course is required for students intending to apply for an Advance Regents Diploma.

COMMON CORE ALGEBRA 2 (NON-REGENTS) – MRS21QN, MRS22QN
A one year non-regents course covering the topics of Algebra 2 curriculum but not terminating in a Regents exam.

ENRICHED COMMON CORE ALGEBRA 2 – MRS21H, MRS22H
A one year enriched course that prepares students to take the Algebra 2 assessment Regents exam. This course terminates in the New York State Common Core Regents.

COMMON CORE GEOMETRY – MGS31, MGS32, MGS33
A one and a half year course that prepares students to take the “Geometry” Regents assessment after three semesters. Students will identify and justify geometric relationships, formally and informally. Students will present a valid argument, expressed in written form, justified by axioms, definitions, and theorems using properties of perpendicularity, parallelism, congruence, and similarity with polygons and circles. Students will also learn transformational geometry, construction, locus, and coordinate geometry as delineated in the Geometry Core Curriculum. This course terminates in the New York State Common Core Regents Exam. The Geometry course is required for students intending to apply for an Advance Regents Diploma.

COMMON CORE GEOMETRY – MGS21, MGS22
A one year course that prepares students to take the “Geometry” assessment. Students will identify and justify geometric relationships, formally and informally. Students will present a valid argument, expressed in written form, justified by axioms, definitions, and theorems using properties of perpendicularity, parallelism, congruence, and similarity with polygons and circles. This course terminates in the New York State Common Core Regents Exam. The Geometry course is required for students intending to apply for an Advance Regents Diploma.

COMMON CORE GEOMETRY (Bilingual Chinese) – MGS21QC, MGS22QC
A one year course that prepares bilingual Chinese students to take the “Geometry” assessment. Students will identify and justify geometric relationships, formally and informally. Students will present a valid argument, expressed in written form, justified by axioms, definitions, and theorems using properties of perpendicularity, parallelism, congruence, and similarity with polygons and circles. This course terminates in the New York State Regents. Students enrolled in this class will take the New York State Regents Examination upon completion of its sequence. The Geometry course is required for students intending to apply for an Advance Regents Diploma.

COMMON CORE GEOMETRY (Bilingual Spanish) – MGS31QS, MGS32QS
A one year course that prepares bilingual Spanish students to take the “Geometry” assessment. Students will identify and justify geometric relationships, formally and informally. Students will present a valid argument, expressed in written form, justified by axioms, definitions, and theorems using properties of perpendicularity, parallelism, congruence, and similarity with polygons and circles. This course terminates in the New York State Regents. The Common Core Geometry course is required for students intending to apply for an Advance Regents Diploma.
ENRICHED COMMON CORE GEOMETRY – MGS21H, MGS22H
A one year enriched course that prepares students to take the “Geometry” assessment. This course terminates in the New York State Common Core Regents Exam.

PRE-CALCULUS
A one-year course to prepare students for calculus. The pre-requisite for this course is a grade of 75 or higher on the Geometry Regents. This course is a pre-requisite for Calculus AB or BC, and is one component of the Murrow Mathematics Seminar program. Topics include functions and graphing techniques, trigonometry, polar coordinates, limits and derivatives. The use of graphing calculators is mandatory.

PRE-CALCULUS (College Credit)
A one-year course to prepare students for calculus. The pre-requisite for this course is a grade of 75 or higher on the Geometry Regents This course is a pre-requisite for Calculus AB or BC, and is one component of the Murrow Mathematics Seminar program. The college credit will be awarded by the University of Albany. The use of graphing calculators is mandatory.

CALCULUS (College Credit)
This course covers the same topics that are covered in Advanced Placement AB Calculus, but does not completely prepare students for the Advanced Placement exam. The college credit will be awarded by the University of Albany.

CALCULUS (AB)
A one-year college level Advanced Placement course in differential and integral calculus. Students enrolled in this course are prepared for the Calculus AB Advanced Placement examination.

CALCULUS (BC)
A double-period advanced placement calculus course which goes beyond the material covered in the Calculus AB course. Students enrolled in this course are prepared for the Calculus BC Advanced Placement examination.

ADVANCED PLACEMENT COMPUTER
An Advanced Placement course in computer programming in Java, preparing students for the Advanced Placement exam in the spring, college credit may be earned.

ADVANCED PLACEMENT STATISTIC
An Advanced Placement course in descriptive and inferential statistics, preparing students for the Advanced Placement examination in the spring; college credit may be earned.

HISTORY OF MATH
This course is available for students who are not necessarily interested in an advanced Regents Diploma. Students will see how mathematical concepts and techniques become more understandable by being placed in historical context. The course will also guide each student towards the experience of independent discovery, by giving them opportunities to do their own research. This course can be used as a required math course for core or elective credits towards graduation. Topics include: Egyptian mathematics, Babylon mathematics, Euclid mathematics, Greek mathematics.
MATHEMATICS OF FINANCE
This course is available for students who are not necessarily interested in an advanced Regents diploma. This main purpose of this course is to assist students in learning to use mathematics effectively as a tool in their personal and business lives. This course can be used as a required math course for core or elective credits towards graduation. Topics include: Gross and Net Income, Checking and Saving Accounts, Credit Cards, Bank Loans, Housing Costs, Insurance and Marketing.

MATH TEAM
Math team is designated for students who have a passion for math. It introduces students to the type of problem solving involved in math competitions. It is highly differentiated since there are as many entry points to this type of problem solving as there are student's abilities and preparation. This class stresses collaboration among students, mentoring, and fostering the ability to recognize patterns and build students’ confidence in presenting their solutions. This course can be used only as elective credits towards graduation. Topics include: Number Theory, The integers, Congruence, Quadratic Reciprocity and Geometry.

Murrow Mathematics Seminar – An intensive special program in mathematics for highly motivated students. With department approval, a student takes the equivalent of 4 years of mathematics during the junior and senior years. This way, students who complete the program will graduate from Murrow with at least 6 years of credit in mathematics. This certainly contributes to an impressive student transcript. In the junior year, the student completes Algebra 2 and takes Pre-Calculus. In the senior year, the student takes Calculus and one of the following: AP Statistics or AP Computer Programming. As an alternative, the student may take BC Calculus, which counts as two mathematics classes, in the senior year. These courses may also be taken as individual electives by students who cannot carry the full program but who have the prerequisite of Algebra 2. The AMC Exam – Students try to score as high as possible on this challenging exam sponsored by the Mathematical Association of America and other professional groups and win awards for high scores. It is a step towards International Math Olympiad (IMO).

RESOURCE CENTER TUTORING
During OPTA bands each day, students in need of help can get free mathematics tutoring in room 281.

THE USE OF CALCULATORS IN MATHEMATICS CLASSES
For the best opportunity for success, students should have their own calculators. You may use graphing calculator TI-83, TI 84, or other after consulting with the subject teacher.

FOREIGN LANGUAGE

Second Language - The study of a second language is an aid to a fuller life. It is a means of communication that broadens interest in the world, allows the student to become involved with different people and gives the student the opportunity to gain additional skills for successful careers. Chinese, French, Italian, Russian, and Spanish are currently offered. A minimum of one year of a second language is required for the New York City High School Diploma. Pupils are urged, however, to complete three or more years of a second language for the following reason:

1. In order to obtain a New York State Regents Diploma with Advanced Designation students must complete a three-year sequence in language and pass a level 3 LOTE Comprehensive Exam.
2. Most CUNY and SUNY colleges and universities expect students to have completed 3 years of foreign language study.
LEVEL ONE FRENCH FFS81 FFS82
This first year sequence provides students with an introduction to French language. Students will be introduced to French language and culture through a variety of activities with emphasis on communication.

LEVEL TWO FRENCH FFS83 FFS84 (Prerequisite Level one French)
This second year sequence of courses provides students with in depth exposure to the linguistic elements of French.

LEVEL THREE FRENCH FF885 FFS86 (Prerequisite Level two French)
This sequence exposes students to situational readings and dialogs in French. In this class, students will enhance their French communication skills. Students enrolled in this class will take the Comprehensive French Language Other Than English Examination upon completion of its sequence.

LEVEL FOUR FRENCH FFS87 FFS88 (Prerequisite Level three French)
This course will increase a student’s fluency in French while simultaneously developing critical and analytic thinking skills through selected readings. It is a one-year course recommended for students with strong French language skills.
*Juniors and seniors with G averages are eligible to take this course and receive 6 college credits via the College Advantage Program. (Fees apply)

ADVANCED PLACEMENT FRENCH FFS21X FFS22X
The focus of this course is on advanced grammar, reading and literary analysis and essay writing. This course prepares students to take the A.P. French Language examination. Students must have a strong knowledge base of French language.

LEVEL ONE ITALIAN FTS81 FTS82
This first year sequence of courses provides students with an introduction to Italian language. Students will be introduced to Italian language and culture through a variety of activities with emphasis on communication.

LEVEL TWO ITALIAN FTS83 FTS84 (Prerequisite Level one Italian)
This second year sequence of courses provides students with in depth exposure to the linguistic elements of Italian.

LEVEL THREE ITALIAN FTS85 FTS86 (Prerequisite Level two Italian)
This sequence exposes students to situational readings and dialogs in Italian. In this class, students will enhance their communication skills in Italian. Students enrolled in this class will take the Comprehensive Italian Language Other Than English Examination upon completion of its sequence.

LEVEL FOUR ITALIAN FTS87 FTS88 (Prerequisite Level three Italian)
This course will increase a student’s fluency in Italian while simultaneously developing critical and analytic thinking skills through selected readings. It is a one year course recommended for students with strong Italian language skills.
*Juniors and seniors with G averages are eligible to take this course and receive 6 college credits via the College Advantage Program. (Fees apply)
ADVANCED PLACEMENT ITALIAN FTS21X FTS22X
This course will focus on intensive study of Italian literature and culture through selected reading. Essay writing skills will be developed through thematic literary pieces. This class is recommended for students with a strong Italian language knowledge base. This class prepares students for the College Board A.P. Italian Examination.

ACCELERATED ITALIAN FTS21H FTS22H
This course is designed for students who have completed a three year sequence of another language and have no knowledge of Italian. The course will cover level one and level two at an accelerated pace. Through a communicative approach students will receive in depth exposure to the Italian language. This sequence will satisfy the prerequisite for level III Italian. *Juniors and seniors with G averages are eligible to take this course and receive 6 college credits via the College Advantage Program. (Fees apply)

LEVEL ONE SPANISH FSS81 FSS82
This first year sequence provides students with an introduction to Spanish language. Students will be introduced to Spanish language and culture through a variety of activities with emphasis on communication.

LEVEL TWO SPANISH FSS83 FSS84 (Prerequisite Level one Spanish)
This second year sequence provides students with in depth exposure to the linguistic elements of Spanish.

LEVEL THREE SPANISH FSS85 FSS86 (Prerequisite Level two Spanish)
This sequence exposes students to situational readings and dialogs in Spanish. In this course, students will enhance their communicative skills in Spanish. Students enrolled in this class will take the Comprehensive Spanish Language Other Than English Examination upon completion of the sequence.

LEVEL FOUR SPANISH PORTFOLIO FSS87 FSS88
This elective course emphasizes culture. Traditional tests are replaced with projects and homework assignments that are completed in Spanish. Students with E or G average in level 3 are invited to participate in this course. Students will be engaged in movie reviews, cultural exploration activities, musical experiences, and reading Spanish literature. Many assignments are completed in groups and each semester a cultural excursion is planned.
*Juniors and seniors with G averages are eligible to take this course and receive 6 college credits via the College Advantage Program. (Fees apply)

LEVEL ONE SPANISH NATIVE SPEAKER FSS61H FSS62H (Department Approval Required)
This course is designed for native speakers of Spanish. The class will focus on teaching Spanish writing skills. Students who complete this course will continue with Level 2 Spanish native Speaker Courses.

LEVEL TWO SPANISH NATIVE SPEAKER FSS63H FSS64H (Department Approval Required)
This course is designed for native speakers of Spanish. The class will focus on enhancing writing skills. Students who complete this course will continue with Level 3 Spanish native Speaker Courses.

LEVEL THREE SPANISH NATIVE SPEAKER FSS65H FSS66H (Department Approval Required)
This course is designed for native speakers of Spanish. The class consists of grammatical, cultural and writing components. Students registered for this course will take the Comprehensive Spanish Examination. Upon completion of this course, students are eligible for AP Spanish Language and A.P. Literature Courses.
A.P. SPANISH LANGUAGE FSS21XA FSS22XA
The focus of this course is on advanced grammar, reading and literary analysis and essay writing. This course prepares students to take the College Board A.P. Spanish Language examination. Students must have a strong knowledge base of Spanish language and have passed the Spanish Regents examination.

LEVEL FIVE A.P. SPANISH LITERATURE FSS21XB FSS22XB
This class is designed for students who are deeply motivated by Spanish literature and advanced writing. It is recommended to students interested in continuing the study of the history, culture, civilization and literature of Spain. The College Board AP Spanish Literature examination is offered to students taking this class. The Spanish AP Literature exam will cover works from the Medieval and Golden Age and the 19th and 20th Centuries.

LEVEL ONE RUSSIAN FRS81 FRS82
This first year sequence provides students who possess some background in Russian language with exposure to the rules of the Russian language. Russian culture is explored through a variety of activities. Emphasis is on writing.

LEVEL TWO RUSSIAN FRS83 FRS84  (Prerequisite level one Russian) This sequence strengthens students’ skills in Russian linguistics.

LEVEL THREE RUSSIAN FRS85 FRS86  (Prerequisite level two Russian)
This course exposes students to Russian literature. The class consists of grammatical, cultural, and writing components. Students registered for this course will take a Comprehensive Russian Language Other Than English examination.

LEVEL FOUR RUSSIAN FRS87 FRS88  (Prerequisite level three Russian)
This class is designed to meet the needs of students who are deeply motivated in the areas of Russian literature and advanced Russian writing. It is recommended to students interested in continuing the study of the history, culture and civilization of Russia.

RUSSIAN AS A SECOND LANGUAGE
This class is designed for non-natives. If you want to learn Russian at an accelerated pace, this class is for you.
*Juniors and Seniors with G averages are eligible to take this course and receive 6 college credits via the College Advantage Program.

COLLEGE LEVEL RUSSIAN FRS21U FRS22U  (Prerequisite level four Russian)
This course will focus on intensive study of Russian literature and culture through selected reading. Essay writing skills in Russian will be developed through thematic literary pieces. This class is recommended for students with a strong Russian language background. This course prepares youngsters for the American Council of Teachers of Russian Advanced Placement Russian National Examination in World Languages (endorsed by the College Board).

LEVEL ONE CHINESE FMS81 FMS82
This first year sequence of Mandarin provides students who possess some background in Chinese language with exposure to the rules of the Chinese language. Chinese culture is explored through a variety of activities. Emphasis is on communication.
LEVEL TWO CHINESE FMS83 FMS84  (Prerequisite Level one Chinese) This sequence strengthens students’ skills in Chinese linguistics.

LEVEL THREE CHINESE FMS85 FMS86  (Prerequisite Level two Chinese) This course exposes students to Chinese literature. The class consists of grammatical, cultural and writing components. Students registered for this course will take a Comprehensive Chinese Language Other Than English Examination.

LEVEL FOUR CHINESE FMS87 FMS88  (Prerequisite Level three Chinese) This class is designed to meet the needs of students who are deeply motivated in the areas of Chinese language, literature and advanced writing. It is recommended to students interested in continuing the study of the history, culture and civilization of China. *Juniors and seniors with G averages are eligible to take this course and receive 6 college credits via the College Advantage Program. (Fees apply)

CHINESE AS A SECOND LANGUAGE
This class is designed for students with NO knowledge of Chinese. It is highly recommended for students who have completed one 3-year language sequence and wish to continue foreign language study.

ADVANCED PLACEMENT CHINESE FMS21X FMS22X  (Prerequisite Level four Chinese) This course will focus on intensive study of Chinese literature, history and culture through selected reading. Essay writing skills will be developed through thematic literary pieces. This class is recommended for students with a strong Chinese language knowledge base. This course prepares students for the College Board Advanced Placement Chinese examination.

English as a New Language  - E.N.L. is a course that is designed to improve the English language skills of pupils who are new to the U.S. and who have not achieved a score of commanding on the N.Y.S.E.S.L.A.T examination. Entering through expanding levels are offered. Students are no longer required to take ESL classes when they receive a score of “Commanding” on the N.Y.S.E.S.L.A.T.

Bilingual Education  - Bilingual Education courses in Mathematics, Science, Social Studies and Native Language Arts are offered in CHINESE (Mandarin) and Spanish only. Ninth and Tenth grade students who have not scored “Commanding” on the N.Y.S.E.S.L.A.T. examination qualify for these courses. Students who are enrolled in bilingual education courses must also be enrolled in ESL (English as A New Language) classes and Native language arts classes until they meet the exit criteria of the NYSESLAT.

BUSINESS EDUCATION
The Business Education Department at Edward R. Murrow High School offers courses designed to prepare students with 21st Century Skills in order to become College and Career Ready. Course offerings develop skills in technology, analyzing financial information, marketing, critical thinking, problem-solving, and decision making as well as the ability to develop presentations and reports. All students can select courses in this department as electives or as part of a New York State approved Career & Technical Education (CTE) program. The CTE programs offered require a 3-year sequence. The 2 CTE programs offered through the business department are Virtual Enterprise/Entrepreneurship and Web & Digital Design. Please see CTE Program page for more information.
Business Education Course Offerings:

Computer Applications 1 & 2 - This is a one-year computer applications course which is designed to teach the essential skill sets for Microsoft Office software including: MS Word, MS Excel and MS PowerPoint. A Microsoft Office Specialist (MOS) Certification test is offered upon successful completion of the course where students may receive a MOS certificate from Microsoft.

Multimedia Design 1 & 2 - This course focuses on photo editing and manipulation, graphic image design, computer animation, virtual reality, and multimedia production using Adobe Creative Suite. Design elements and principles will be applied to projects ranging from print media publications, digital presentations, and web ready graphics, sound, animations and video. (No pre-requisite for this course)

Digital Marketing 1 & 2 - As our daily lives become more online-centric, companies have moved aggressively towards digital marketing to build brand awareness and sell products and services to an ever-increasing, computer-savvy customer. Students taking Digital Marketing will learn strategies and tactics needed to successfully navigate this new landscape. Combining timetested marketing principles with 21st century techniques, students will master how to assess customer needs and utilize social media, search engine marketing, display advertising, content marketing, email, and more to develop high-performing integrated marketing plans that deliver on key metrics.

Web Design 1 & 2 - This course introduces students to basic web design using Adobe Creative Suite, HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets). Students are introduced to planning and designing effective web pages; implementing web pages with Dreamweaver, writing HTML and CSS code; enhancing web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and producing a functional, multi-page website. (Pre-requisites: Digital Media 1 & 2 and Multimedia 1 & 2)

Accounting 1 & 2 - This one-year course introduces students to the fundamental concepts and techniques of accounting for business transactions including: business records, journals and ledgers, theory of debit and credit and the preparation of financial statements.

College Accounting 1 & 2 - This one-year course covers the same curriculum as a one-semester Accounting course in most colleges. The emphasis of this course is on how financial information is used as the basis for most business decisions. Students will learn how to analyze financial information and be able to evaluate the profitability of a business. (Juniors and Seniors only)

Career & Financial Management (One Semester) - This course is designed to provide students with information and experience that will help them analyze their aptitudes, set realistic goals and make intelligent career choices. In addition, this course emphasizes economic decisions related to financial management. Students will study a range of financial alternatives and explore basic decisions necessary to become informed employees, consumers and citizens. Topics include; writing resumes and cover letters, developing interviewing skills, banking, budgeting, savings, credit, taxes, investing, purchasing, and insurance. Students will be guided to develop critical skills towards becoming more financially responsible individuals. All students enrolled in a CTE program must take this course as part of their sequence.

Stocks & Investments (One Semester) - Students will learn the stages of investing and understand the relationship between risk and potential return. Students will also learn how the different securities markets
operate, how to plan effective investment strategies, the criteria for choosing investments, and the steps for investing wisely. Course culminates in a stock market game simulation. (Juniors and Seniors only)

Business Law (One Semester) - Students will learn the basics of business and personal law. The emphasis of this course is on learning the rights and responsibilities of individuals in various business situations (contracts, torts, criminal law, financial agreements, tenant/landlord relationships, lawsuits, sales/purchases, etc.) Legal procedures and legal terminology are also discussed.

Entrepreneurship 1 & 2 – This course is designed to teach the basics of starting and running a business. The class is project based with each student developing a business plan for a small business. In the process, students will learn about business organization, raising capital, marketing strategies, promotion, employee motivation, legal considerations, and protection of intellectual property.

Virtual Enterprise 1 & 2 - This course is taught as a business simulation in a corporate office environment. Students will learn about entrepreneurship, marketing, finance, and human resources as they conduct transactions with other “virtual businesses” run by students in high schools throughout the world. Students are assigned employee roles within the business and complete a variety of activities for the firm. Students will create a business plan that will be followed throughout the year as well as prepare for and attend a tradeshow during the spring semester. Students may participate in various competitions, and will have the opportunity to apply for select internships and scholarships. Students will also earn Economics credit and Career & Financial Management credit while participating in this course. This course meets for a double period daily and requires an interview before being accepted. (Pre-requisites: Computer Applications 1 & 2 and Entrepreneurship 1 & 2)

CAREER AND TECHNOLOGY EDUCATION

CAREER & TECHNICAL EDUCATION PROGRAMS (CTE)

A CTE Program of Study at Edward R. Murrow High School consists of a 3-year sequence in a specific industry area that will prepare high school students to be both College and Career Ready. Students in a CTE Program receive integrated instruction of academic and industry specific content as well as work-based learning experiences such as internships. By completing a CTE Program of Study, students not only receive their High School Regents Diploma, but also have an opportunity to pass industry-recognized certification examinations that lead to credentials, as evidence of their college and career readiness.

CTE Program Offerings:

Virtual Enterprise (VE)/Entrepreneurship Program: *(New York State Approved CTE Program)*

This 3-year sequence provides students with the opportunity to learn all the 21st Century Skills necessary to own and operate an entrepreneurial venture. Students have the opportunity to utilize these skills through a business simulation, in a corporate office environment as well as work closely with Industry partners to gain real work experience. The program also partners with several colleges to offer students a clear pathway to a college business program as well as gain college credits for VE courses taken upon acceptance to these partner colleges.

Students that successfully complete the VE/Entrepreneurship program sequence will earn Economics credit and Career
Financial Management credit. After passing the NOCTI Technical Assessment, students will also receive a CTE Technical Endorsement on their diploma. College credit will be awarded to students who score 71% or higher on their technical assessment. Microsoft Office Specialist (MOS) Certification testing is offered. Internship and scholarship opportunities are also available.

Courses in this program include:

Computer Applications 1 & 2 - This is a one-year computer applications course which is designed to teach the essential skill sets for Microsoft Office software including: MS Word, MS Excel and MS PowerPoint. A Microsoft Office Specialist (MOS) Certification test is offered upon successful completion of the course where students may receive a MOS certificate from Microsoft.

Entrepreneurship 1 & 2 – This course is designed to teach the basics of starting and running a business. The class is project based with each student developing a business plan for a small business. In the process, students will learn about business organization, raising capital, marketing strategies, promotion, employee motivation, legal considerations, and protection of intellectual property. Students participate in a business plan competition and receive mentoring from various business partners.

Virtual Enterprise 1 & 2 - This course is taught as a business simulation in a corporate office environment. Students will learn about entrepreneurship, marketing, finance, and human resources as they conduct transactions with other “virtual businesses” run by students in high schools throughout the world. Students are assigned employee roles within the business and complete a variety of activities for the firm. Students will create a business plan that will be followed throughout the year as well as prepare for and attend a tradeshows during the spring semester. Students may participate in various competitions, receive mentoring from our business partners and will have the opportunity to apply for select internships and scholarships. Students will also earn Economics credit and Career & Financial Management credit while participating in this course. This course meets for a double period daily and requires an interview before being accepted. (Pre-requisites: Computer Applications 1 & 2 and Entrepreneurship 1 & 2)

Web & Digital Communications Program:

This 3-year sequence provides students with the skills necessary to create, design and produce interactive multimedia products and services, including the development of digitally-generated or computer-enhanced media used in business, training, entertainment, communications and marketing. Students will create professional industry-standard web pages, logo designs and print advertisements in order to promote businesses and other organizations. The program partners with professional web design and creative marketing companies to provide mentoring opportunities and partners with colleges to offer students a clear pathway to a college level Web & Digital Communications program upon graduation. After fulfilling all the program course requirements, students will have the opportunity to take Adobe software certifications exams. Internship and scholarship opportunities are also available.

Courses in this program include:

Multimedia Design 1 & 2 - This course focuses on photo editing and manipulation, graphic image design, computer animation, virtual reality, and multimedia production using Adobe Creative Suite. Design elements and principles will be applied to projects ranging from print media publications, digital presentations, and web ready graphics, sound, animations and video. (No pre-requisite for this course)

Digital Marketing 1 & 2 - As our daily lives become more online-centric, companies have moved aggressively towards digital marketing to build brand awareness and sell products and services to an ever-
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**Web Design 1 & 2** - This course introduces students to basic web design using Adobe Creative Suite, HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets). Students are introduced to planning and designing effective web pages; implementing web pages with Dreamweaver, writing HTML and CSS code; enhancing web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and producing a functional, multi-page website. *(Pre-requisites: Digital Media 1 & 2 and Multimedia 1 & 2)*

*Career & Financial Management (One Semester)* - This course is designed to provide students with information and experience that will help them analyze their aptitudes, set realistic goals and make intelligent career choices. In addition, this course emphasizes economic decisions related to financial management. Students will study a range of financial alternatives and explore basic decisions necessary to become informed employees, consumers and citizens. Topics include; writing resumes and cover letters, developing interviewing skills, banking, budgeting, savings, credit, taxes, investing, purchasing, and insurance. Students will be guided to develop critical skills towards becoming more financially responsible individuals. All students enrolled in a CTE program (other than VE) must take this course as part of their sequence.

**Music Technology Program:**

This 3-year sequence provides students with the skills necessary to write, record and edit original sound recordings using the latest recording technology. Students are exposed to various technical and creative skills, and have a multitude of roles and options to which they can apply them including; producers, mastering engineers, film scores, etc. Students will set up and professionally record live performances including musicals, concerts and talent shows. Students also take a Career & Financial Management course in order to prepare them for real world working experiences. The program partners with professional studios to provide mentoring opportunities and partners with colleges and trade schools to offer students a clear pathway to a post-secondary music technology program upon graduation. After fulfilling all the program course requirements, and passing the Logic Pro X Technical Assessment students will receive Logic Pro X Certification. Internship and scholarship opportunities are also available.

Courses in this program include:

**Beginning Piano 1** for music technology - *(For Beginners Only - No Advanced Students)*
Instruction for all students interested in playing piano. No previous experience required. Students focus on piano basics; learning to read notes, read rhythms, play scales, play basic chords and other tools essential to playing any style of music. Students will have the opportunity to learn the basics of recording using garage band.

**Intermediate Piano 2** for music technology - *(Prerequisite - Beginning Piano 1)*
Instruction for all students interested in continuing their piano studies for the music technology program.

**Music X Technology 1** *(Introduction to Music Technology)* - introduces students to basic music and audio principles through the writing, editing, and mixing of various sound recording projects. Students are taught technical skills and critical listening ability in conjunction with their exploration of the creative potential of music technology. Emphasis is placed on the students’ abilities to work effectively as a team to
produce creative works with varying guidelines and creative restraints. Concepts taught include the basic elements of music, composition and songwriting techniques (including loops, sampling, audio recording, MIDI) setting up and recording a variety of instruments, basic editing and mixing, and recording and editing MIDI using a variety of controllers. All concepts are taught using software Logic Pro X. A focus is placed on explanation of creative and technical decision made in crafting sound recordings.

Music X Technology 2 (Advanced Music Technology) - expands on music and production principles explored in Introduction to Music Technology through the writing, editing, and mixing of various sound recording projects. Students are taught technical skills and critical listening ability in conjunction with their exploration of the creative potential of music technology. Emphasis is placed on the students’ abilities to work effectively as a team to produce creative works with varying guidelines and creative restraints. Concepts taught include furthering understanding of songwriting and production techniques (including loops, sampling, audio recording, MIDI), post-production, including editing, mixing and mastering, and using these skills to create different types of recording projects, including remixes, mashups, and covers, as well as original compositions. All concepts are taught using software Logic Pro X. A focus is placed on explanation of creative and technical decision made in crafting sound recordings. Students complete a full-length album at the end of the course.

Music X Technology 3 (Recording Studio Production Techniques/MIDI) - introduces students to multi-track recording and production using Logic Pro X systems, through the writing, editing, and mixing of various sound recording projects, as well as more advanced features in MIDI recording and editing. Contemporary recording studio techniques include microphone selection, placement, analog and digital signal paths, speaker monitors and studio acoustics. Techniques for recording drums, bass, piano, guitar, woodwinds, strings and vocals. Practical hands-on experience with professional recording artists and student collaborations. Emphasis is placed on recording acoustic instruments as well as digital MIDI recording. By the end of the course, students will compose a full piece using MIDI, and then record live musicians performing that piece.

Music X Technology 4 (Studio Practicum) - is the capstone course of the Music Technology program. Students apply their full skill set to a variety of projects that serve the Murrow community, including the recording of ensembles for the music department, composition of songs for various causes, including dance ensemble, the planetarium, etc, as well as putting on the program showcase event Music Tech Fest. Students are exposed to other facets of the music industry, including music promotion and business.

*Career & Financial Management (One Semester) - This course is designed to provide students with information and experience that will help them analyze their aptitudes, set realistic goals and make intelligent career choices. In addition, this course emphasizes economic decisions related to financial management. Students will study a range of financial alternatives and explore basic decisions necessary to become informed employees, consumers and citizens. Topics include; writing resumes and cover letters, developing interviewing skills, banking, budgeting, savings, credit, taxes, investing, purchasing, and insurance. Students will be guided to develop critical skills towards becoming more financially responsible individuals. All students enrolled in a CTE program (other than VE) must take this course as part of their sequence.

FINE ARTS

Minimum Requirements for a Diploma - In order to earn a high school diploma, every student must complete a minimum of one semester of art. All students must take and pass 1 semester of Art Studio.
Students may also successfully complete the required credits by taking one year of Art Studio and any one semester of an elective in order to meet this requirement.

**THE ART INSTITUTE** is a screened program for students in the city who are committed to developing their skills in the visual arts and who are considering careers in the art and design related industries. Along with the required courses in other academic areas, these students will receive special training in the field of art. Students apply for the Art Institute in the 8th or 9th grade and are selected on the basis of an audition, review of a portfolio and a review of the student’s record. All Art Institute students will graduate with a 3-5 year sequence in art by doubling up in art during their sophomore and junior year. See Department Supervisor in room 440 for the sequence of courses.

**FINE ARTS SEQUENCE** - Students must take a minimum of 3 years of art to be considered for any of the art awards offered by the art department. Included in this must be the following courses: 2 semesters of Foundation, 1 semester of Drawing from the Figure, 1 semester of Sculpture, 1 semester of Printmaking, 1 semester of Advance Studio, 2 semesters of Painting Studio, 1 semester of Portfolio Development, and 2 semester of AP Art History (the AP Art History course culminates in the AP exam). The Fine Arts sequence culminates in the Three Year Comprehensive Exam. All students who take and pass the exam are eligible for the Advanced Regents Diploma with Chancellor's endorsed diploma in the Arts. Students in this sequence will have the opportunity to be in the National Art Honor Society.

*All students taking the Fine Arts sequence must exhibit work in the art show at the end of June.*

**Course Offerings** - NOT ALL COURSES ARE OFFERED EVERY SEMESTER

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>1 SEMESTER</th>
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<tbody>
<tr>
<td>AP Art History</td>
<td>Fashion Illustration</td>
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<tr>
<td>Advanced Studio Art</td>
<td>Foundation</td>
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<tr>
<td>Animation</td>
<td>Graphic Design</td>
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<tr>
<td>Architecture</td>
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<tr>
<td>Photography</td>
<td>Sculpture</td>
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<tr>
<td><strong>ART STUDIO</strong></td>
<td>1 SEMESTER</td>
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<td>A 1 semester course which will offer some if not all of the following: basics of painting by creating two dimensional designs using line, color, shape, texture, and pattern. Emphasis is on the principles of design, color theory, and basic painting skills using a variety of media. Basics of perspective drawing, analyzing designs. Students may also explore the basics of drawing, anatomy, ratio and proportion. (This course satisfies the requirements in art).</td>
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<tr>
<th><strong>ARCHITECTURE</strong></th>
<th>1 SEMESTER</th>
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<td>This course introduces the basic architectural concepts combining technical and design considerations. Students become familiar with different architectural styles, basic house design, and requirements for design planning in order to execute their own designs. Technical drawing fundamentals are taught including use of drafting instruments, technical sketching, drafting floor plans, and elevations. Additional units include basic</td>
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construction systems, green technology and alternative energy systems and a range of possibilities for career planning in the architecture field.

**FASHION ILLUSTRATION AND DESIGN**  
**1 SEMESTER**

Students will be introduced to the world of fashion by developing an original "croquis" fashion figure and learning how clothing is constructed. Various collars, necklines, sleeves and skirt styles will be explored as students develop a seasonal line of clothing. As students’ progress, they will develop lines of clothing including evening and casual wear. Primary research of historical garments will be used as a source of inspiration. Various media such as professional markers, colored pencils and watercolor paints will be used to render finished designs. The work of past and current designers will be explored as well. Students will also design a line of accessories. (Elective)

**ADVANCED FASHION ILLUSTRATION & DESIGN**  
**1 SEMESTER**

Students will continue to refine their design and illustration skills while working more independently. Croquis (fashion figures) will be developed with an emphasis on personal style. Students will develop their own textile designs. A line of clothing will be created utilizing these designs. Flats (mechanical drawings) may be incorporated into layouts. A variety of media will be used. Assistance with assembling a portfolio for college admission will be given. (Pre-requisite: Fashion Illustration & Design)

**DIGITAL PHOTOGRAPHY**  
**1 SEMESTER**

The emphasis of the course is on approaching the medium of photography as a means of artistic expression and technical mastery. Students will study the masters of traditional and digital photography and learn to understand and evaluate photographs as a creative art forms. Through photography and the creative process, students will explore the elements of art, principles of design, composition, digital photography equipment, digital darkroom techniques, lighting, and a variety of methods, techniques, and processes that artists use when working in this art discipline. Digital Photography is a one-semester introduction to the DSLR camera and the computer as art-making tools. This course focuses on the creation of art works using digital media, photography and design. An overview of the history of photography and career exploration in the photography and graphic arts fields will be explored. Sequential curriculum is designed to acquaint students with industry level programs and challenge students to make aesthetic decisions based on solid design principles. Students will become adept at understanding art from the past as well as other cultures in order to give depth to their own creative expression. Digital Arts skills required by business and industry will be addressed as well as works of contemporary artists who have ventured into the digital realm. (Pre-requisite: must have taken and passed Art Studio.)

**ADVANCED DIGITAL PHOTOGRAPHY**  
**1 SEMESTER**

The emphasis will be on the photograph as an art form. Composition, the visual elements of art, and viewer impact will be discussed as students perfect their photographic and lighting techniques and discuss the work of famous photographers. Assignments include still-life, portraits, and self-portraits. A trip to a museum will be required as well. (Pre-requisite: Photography)

**ANIMATION**  
**2 SEMESTER**

In this course you will be exposed to a variety of forms of animation. Through hands on project, you will experience the production of different forms and techniques of animation, including: traditional Frame-by-Frame Animation, 2d computer software animation (Adobe Flash), and Stop Motion/Claymation. The class will also be looking at an overview of the technical and historical evolution of animation to help students
understand and appreciate the art as well as gain a foundation for pursuing animation as a career. (Pre-requisite: Art Studio, Foundation, Multi-Media Design)

**GRAPHIC DESIGN**  
1 SEMESTER

Graphic Design is a one-semester introduction to the computer as an art-making tool. This course focuses on the creation of art works using a combination of traditional and digital media. Sequential curriculum is designed to acquaint students with industry level programs and challenge students to make aesthetic decisions based on solid design principles. Students will become adept at understanding art from the past as well as other cultures in order to give depth to their own creative expression. Graphic Design skills required by business and industry will be addressed as well as works of contemporary artists who have ventured into the digital realm.

**SCREENED ART**

The following classes are only for screened students or students who have been approved:

**FOUNDATION**  
(Screened Art Freshman/Permission Only)

Learn to observe and draw the world around you using a variety of graphic media such as pencil, ink, charcoal, wash, etc. This course includes observation and practical techniques that will improve your proportions, representation of form, and composition. Advanced drawing assignments include the application of color theory, interpretation of subject matter, and development of individual style using media such as colored pencils, pastel and/or watercolor. During the second half of the year, students will learn about Graphic Design. Graphic Design teaches students to communicate an idea through the use of visual symbols. Students solve design problems using positive/negative space, balance, repetition, proportion, emphasis and movement.

**DRAWING FROM THE FIGURE**  
(Screened Art Sophomores/Permission Only – 1 SEMESTER)

Students will learn the proportions, gestures, anatomy, and form of the human figure as they work from a model in a variety of black and white media such as pencil, charcoal, conte crayon and ink.

**SCULPTURE**  
(Screened Art Sophomores/Permission Only – 1 SEMESTER)

Students will translate drawings into sculptures. Sculpture techniques such coiling, slipping, slab and etching may be covered as well as scoring and slicing paper sculptures, nailing and gluing wood, etc.

**PAINTING STUDIO**  
(Screened Art Juniors/Permission Only- 2 SEMESTERS)

Students will explore acrylic, oil or watercolor painting techniques while working on a still life. They will continue their painting explorations while painting a variety of subject matter in a variety of sizes and surfaces. Students are encouraged to build on their strengths and work independently as well as in class.

**ADVANCED STUDIO ART**  
(Screened Art Juniors/Permission Only - 1 Semester (Spring))

Students will work in a self-made sketch book which will contain concepts and ideas on a variety of projects in a variety of media. In addition, the sketch book will serve as a spring board for the students to begin to assemble their portfolios for college admission. Open only to juniors who have completed a minimum of 2 years of art courses, or by permission of the Assistant Principal/Fine Arts.

**PRINTMAKING**  
(Screened Art Juniors/Permission Only - 1 Semester (Fall))
Students will work on translating designs into prints using a variety of printmaking techniques such as: Linoleum Cuts, Block Printing, Etchings and Serigraphs (Silk Screen). Open only to juniors who have completed a minimum of 2 years of art courses, or by permission of the Assistant Principal/Fine Arts.

**ART PORTFOLIO**  (Screened Art Seniors/Permission Only OFFERED FIRST SEMESTER)

Students will work on a variety of projects in different media in order to assemble a portfolio for admission into an art college or for one's own personal satisfaction. Each student's strengths and weaknesses will be assessed with the goal of developing a well-rounded portfolio showing numerous skills. Students will learn the process of photographing for portfolio, matting art work, presentations and interview skills. Students will work one on one for the art college selection process as well as scholarship possibilities. Open only to juniors or seniors who have completed a minimum of two years of art courses or by permission of the Assistant Principal/Fine Arts. Offered during first semester ONLY.

**AP ART HISTORY**  (Screened Art Seniors/Permission Only – 2 SEMESTERS)

After a two (2) week introduction to the world of art, students will explore the history of art from prehistoric times through current day. The course includes at least two museum trip, films, and PowerPoint presentations. This is not a hands-on course and there is no prerequisite, however you will need permission from the A.P. of art, unless you are a screened senior. This course is required for students taking the 3-year comprehensive exam in art and the AP Art History exam.

**MUSIC**

Murrow has the largest and most comprehensive high school music department in Brooklyn. Students have an opportunity to go beyond the one semester of music needed to fulfill their diploma requirement. Without a prerequisite or audition, students can learn how to play the guitar, piano, a band instrument, a string instrument or sing in a chorus. As well, with a placement audition, a student may also sing in any one of the following choruses: Junior Chorus, Intermediate Chorus, Senior Chorus, Gospel chorus and Madrigal Choir. If you played an instrument in junior high school, we encourage you to continue by participating in one of our many performance classes. Consult with your guidance counselor or the assistant principal of music for an appropriate placement. Any student interested in pursuing music beyond the minimum graduation requirement, may continue in a sequence of study in the guitar, piano, choral, string or band program. Also, with permission from a music teacher, any student may take specialized classes in vocal technique, instrumental technique or music theory.

*The Music Institute* is an auditioned program for students who are committed to developing their skills in music.

**Course Offerings**

**UDS81, UDS82. BEGINNING BAND** (No Prerequisite)
Instruction for students interested in learning trumpet, trombone, baritone horn, flute, clarinet, or saxophone.

**UDS83, UDS84. INTERMEDIATE BAND**  (Prerequisite – one year of Beginning Band with a minimum of a G grade.) Instruction for students interested in continuing their studies from Beginning Band.

**UDS85, UDS86. CONCERT BAND** (by audition and pass Intermediate Band)
Performance ensemble. Open to all students with a minimum of 1 year playing experience on a band instrument. Students develop ensemble techniques, improve performance skills, play music of the popular and standard band repertoire.

UDS87, UDS88. SYMPHONIC BAND (by audition and pass one-year Concert Band) Performance ensemble. Open to students with 2 or more years playing experience on a band instrument. Students will further develop performance skills through study of advanced band literature.

UJS21. JAZZ BAND (by audition and pass one year of Concert Band) Performance ensemble. Open to all students with 2 or more years playing experience on a band instrument. Students develop Jazz performance and improvisation skills through the study of Jazz repertoire and appropriate theory.

UZS21, UZS22. BEGINNING STRINGS (No Prerequisite) Instruction for students interested in learning violin, viola, cello or bass. It could be the start of your progression to String Orchestra.

UZS41, UZS42. STRING ORCHESTRA (by audition) Performance ensemble. Open to all students with a minimum of 1 year playing experience on a string instruments. Students develop ensemble techniques, improve performance skills, and perform music of popular and standard orchestral literature and study appropriate theory and competitions.

UZS43, UZS44. CHAMBER ORCHESTRA (by audition) A performance ensemble for string players. Prerequisite is AUX String Orchestra or by permission of the ensemble director. Students develop ensemble techniques, improve performance skills and perform music of popular and standard string orchestral literature and study of appropriate theory.

UYS11. MUSICAL THEATRE ORCHESTRA (By audition) The pit orchestra for the two musicals (semester one and semester two) It is a K band class.

UFS41, UFS42. BEGINNING CHORUS (No Prerequisite) Instruction for students interested in learning how to sing in a chorus.

UFS41, UFS42. INTERMEDIATE CHORUS (Prerequisite – Beginning Chorus, Junior Chorus or audition) Performance ensemble with added focus on improving musicianship and ensemble skills

UVS41, UVS42. JUNIOR CHORUS (by audition) Performance ensemble. Instruction for all students interested in developing their singing skills. No previous experience necessary, however, students will be auditioned.

UVS43, UVS44. SENIOR CHORUS (Prerequisite – Junior or Intermediate Chorus or audition) Performance ensemble. Open to all students with a minimum of 1/2-year choral experience. Develop vocal performance skills through the study of advanced choral literature.

URS21, URS22. GOSPEL CHORUS (by audition)
Performance ensemble. Open to all students interested in the study and performance of Gospel Music. Students develop vocal performance skills through a wide spectrum of traditional and contemporary Gospel/Sacred literature. Students are prepared to perform in competitions, festivals and other venues serving the community.

UVS21, UVS22. MADRIGAL CHOIR (by audition)
Madrigal Choir is an advanced a cappella choir that performs serious literature in various languages from the 14th century to the present. Students are prepared to perform in music competitions and festivals. See Choir Director for audition.

UPS31. BEGINNING PIANO (No Prerequisite, For Beginners Only - No Advanced Students) Instruction for all students interested in playing piano. No previous experience required.

UPS32. INTERMEDIATE PIANO (Prerequisite – Pass Beginning Piano with a minimum of a G or audition) Instruction for all students interested in continuing their piano studies

UPS33. ADVANCED PIANO (Prerequisite – Pass Intermediate Piano with a minimum of a G or audition) Instruction for all students interested in more advanced piano techniques. Open to students with a minimum of 1 year playing experience.

UGS31. BEGINNING GUITAR (No Prerequisite, For beginners only - no advanced students) Instruction for all students interested in playing guitar. No previous experience required.

UGS32. INTERMEDIATE GUITAR (Prerequisite: Pass Beginning Guitar with a minimum of a G or audition) Instruction for all students interested in continuing their guitar studies

USG33. GUITAR ENSEMBLE (By audition)
Performance ensemble. Open to all students with a minimum of 1 year playing experience on guitar. Students develop performance skills through the study and performance of appropriate literature.

The following courses are offered to Music Institutes students or by permission from the Assistant Principal of Music:

• UQS21QV. VOCAL TECH (1st year)
Focus on fundamentals in Vocal Technique and Solfege

• UQS21QB. BAND TECH (1st year)
Focus on technique fundamentals for band instruments and music literacy

• UQS21QS. STRING TECH (1st year)
Focus on technique fundamentals in string instruments and music literacy

• UUS21QS. VOCAL PIANO THEORY (2nd year)
Instruction for vocal students interested in playing piano and learning music theory.

• UUS21. INSTUMENTAL PIANO THEORY (2nd year)
Instruction for instrumental students interested in playing piano and learning music theory.

• UQS11QSRR. REPERTOIRE AND RECITAL
For vocal students to prepare solo and small ensemble performances for a recital and college auditions.
**Advanced Placement Courses**

**UUS21X. ADVANCED PLACEMENT MUSIC THEORY (SPECIAL PERMISSION – Prerequisite: Piano Theory and approval by the instructor)**

Students will develop the ability to recognize (visually and aurally) and understand the tonal-rhythmic nature of any music that is heard or read in score. Course includes harmony, theory, music dictation, sight singing, and ear-training. The course ends with an advanced placement examination which may earn college credit.

**Music Technology Courses**

**ULS41T. INTRODUCTION TO MUSIC TECHNOLOGY (By Application)**

Introduces students to basic music and audio principles through the writing, recording, and editing of various sound recording projects. Students write and record an original song at the end of the course.

**ULS42T. ADVANCED MUSIC TECHNOLOGY (Prerequisite – Introduction to Music Technology)**

Concepts taught include song writing and production techniques (loops, sampling, audio recording, MIDI), postproduction, including editing, mixing and mastering, and using these skills to create different types of recording projects, including remixes, mashups, and original compositions.

**ULS43. TRECORDING TECHNIQUES & MIDI (Prerequisite – Advanced Music Technology)**

Exposes students to contemporary recording concepts including microphone selection and placement, and techniques for recording drums, bass piano, guitar, as well as orchestral and traditional band instruments, as well as more advanced production techniques, such as sound design and advanced sampling.

**ULS44T. STUDIO PRACTICUM (Prerequisite – Recording Techniques & MIDI)**

Capstone course taught in a work-based learning environment where students apply skills acquired throughout the program to run a music technology business that creates media to serve the needs of the school community, including writing and recording original songs, recording music ensembles, composing for various school functions, and producing music technology program events.

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**HEALTH AND PHYSICAL EDUCATION**

In order to obtain a New York City High School Diploma, a student must pass 7 semesters of Physical Education and 1 semester of Health Education.

The Health and Physical Education Department offers a wide variety of required, and elective courses. These courses, many of which are offered on several ability levels, are geared toward providing each student with an opportunity to satisfy their individual interests and needs.

**Course Offerings - Physical Education  Required Courses**

**INTRODUCTION TO PHYSICAL EDUCATION (2 semesters is required for ALL incoming students)**
This course is designed to introduce entering students to a wide variety of courses and activities offered in physical education.

**HEALTH**
Students will learn about Contemporary Health Issues and Human Sexuality during this required semester long course during their sophomore year. The Contemporary Issues section of the course will give students the chance to discuss and evaluate their own behaviors (Mental Health, Drugs, Nutrition and Diseases) in order to improve well-being and quality of life. The Human Sexuality section of this course is designed to help students understand themselves as a sexual being and use this awareness to make responsible decisions and live a healthful lifestyle.

**Elective Courses Sports**

**BASKETBALL**
America’s premier playground sport. Basketball skills and strategies will be taught along with team and tournament play.

**FOOTBALL**
Modified, touch and/or flag football provides an activity where everyone can improve their skills in throwing, catching, running, positioning and game strategies.

**SOCCER**
Students will learn the basic skills and team play of the world’s most popular sport.

**SOFTBALL**
Students will learn basic skills as well as game rules, history and strategy

**VOLLEYBALL / BADMINTON**
Students will learn history, rules, team strategy, basic skills and cooperation through team play. Tournament play is a culminating activity.

**TENNIS**
Tennis is a life-time activity that is played in singles and doubles. You will learn basic skills, rules, history, and singles & doubles play. Tournament play is a culminating activity.

**WALL SPORTS**
Students will learn handball and paddleball skills, history and strategy, culminating in both singles and doubles tournaments.

**GROUP GAMES**
This is an indoor class incorporating group games and activities such as whiffle ball, cage ball, parachute activities as well as games from long ago played in the street. Skills, history, and strategies will be taught for all games.

**Physical Fitness**

**WEIGHT TRAINING**
Students will learn proper lifting techniques for free weights as well as machines. Various theories and terminology related to weight training will be discussed.

**WALK, JOG, RUN**
Students will discover the lifelong benefits of cardiovascular fitness, muscle toning, improving stamina and burning calories.

**YOGA/PILATES**
Method of body conditioning that stretches, strengthens and tones muscles, improves posture, provides flexibility and balance. Unites mind and body, and creates a more streamlined shape.

**FIT FOR LIFE**
A group fitness and conditioning class that promotes a lifestyle of physical activity and healthy living. Activities include strength training, cardiovascular training, step, power yoga, plyometric, circuit training, and boot camp. Body measurements are recorded and tracked.

**Dance**

**INTRODUCTION TO DANCE**
Students audition for this class sometime in December. Students explore diverse genres of dance, such as Folk Dance, Irish Dance, Ballet Workout, Jazz, and Modern. It is a sampling of dance styles and the class culminates in performance in Murrow's annual concert. Students who demonstrate proficiency in this class are invited to proceed to Theatre Movement, Jazz Dance, Modern Dance, or Latin, and to be a participant in the professional-track program.

**MODERN DANCE**
Students will explore the styles and techniques of various modern dance choreographers, (Graham, Humphrey, Horton, Ailey, Cunningham, Dunham) through warm up and combinations. They will be able to recognize the differences in styles and methods of past modern choreographers. Students will also experiment with improvisational, movement exploration, dance making and performance skills.

**LATIN DANCE**
Learn the most popular social dances in New York City. Dance your way to the next party with Salsa, Tango, Merengue and Bachata.

**THEATRE MOVEMENT I**
This introductory course focuses upon the body as the source of creativity. This course explores various exercises and methodologies for encouraging appropriate alignment and execution of basic dance steps within a performance context.

**THEATRE MOVEMENT II**  (Prerequisite PDTM1)
This class follows Theatre Movement I. It provides ways to explore active imagination through physical action. Students develop and create characters through movement and gesture. This class combines physical theatre techniques with theater dance.

**ADVANCED DANCE CLASS**
Advanced Dance Class is offered during 0 Band. This is a one-year seminar class that focuses on Classical Dance and Modern Dance (Horton technique). This course is only for dancers with serious, previous training (either in or outside of Murrow). It is ideal for the dancer who is interested in a progressive training program in dance, has aspirations of studying Dance in college, has already satisfactorily completed all previous skill levels, or meets the prerequisite standard as determined by the instructor.
DANCE ENSEMBLE/CHOREOGRAPHY
This level is this department's highest skill level for dance. While your technical skill is good and your aesthetic is informed, you are also now at a place from which you can re-examine your current understanding and deepen the meaning of technique, skill, performance, and expression that distinguish the artist from the technician. In this course, each student submits proposals and creates choreography that is performed in an annual dance concert.

DANCE HISTORY AND LITERACY: EDUCATION BROADENING MODULES
(Regents Track)
YEAR I: This is a lecture course in dance history. The first semester will cover the history of ballet and modern dance, while the second semester focuses upon Latin Dance and the influence of African and Afro-Cuban dance forms on Contemporary American Dance. Reading and analysis of videos and photographs will be assigned throughout the semester. In-studio projects will guide our discussion about form, content and critical analysis.

YEAR II: This lecture course explores Labanotation, dance criticism, and dance physiology. This course is designed upon Brenda Pugh McCutchen's ideas in Teaching Dance as Art in Education (2006). She identifies four fundamental cornerstones for learning in dance: Cornerstone 1 - Dancing and performing; Cornerstone 2 - Creating and composing; Cornerstone 3 - Knowing history; culture and context; and Cornerstone 4 - Analyzing and critiquing. Building from this structure, McCutchen defines dance literacy as, “the ability to function in each dance cornerstone as dancer, critic, historian-anthropologist and choreographer.” Students embark upon their own research and create a thoughtful exit project.

ADAPTIVE PHYSICAL EDUCATION
This course is designed for the physically challenged student to learn the fundamentals of games, sports and exercises. Students will improve their motor skills, coordination and fitness.

SPECIAL EDUCATION DEPARTMENT
In conjunction with the legal mandates of P.L. 94-142 and IDEA, Special Education students are educated in the least restrictive environment. They are enrolled in many of the mainstream courses described in this student guide. Mainstreaming or team teaching setting is mandated by each student's Individualized Education Program (IEP). In addition, classes for self-contained students are available in all subject areas for most mainstream courses. These courses parallel their mainstream counterparts in content and offer full diploma credit.

At the present time, occupational education courses in business education and work study are available to all ISS students. ISS students have access to and are encouraged to take various electives of choice and interest.

In order to provide assistance for effective functioning in mainstream classes, a non-credit mainstream support class (Special Education Teacher Support Services) is offered to our Special Education students. Other specialized programs such as Hearing Education Services, Educational Vision Services and Adaptive Physical Education contribute to a well rounded program designed to meet the educational needs of youngsters with various disabilities. Murrow is also one of the community schools in New York City that houses an ACES (Academic, Career, and Essential Skills) Program that is intended to support students that participate in the New York State Alternate Assessment Program.
Students who require related services to achieve their educational goals as indicated in the Individualized Education Program (IEP) are provided based on the specificity of the mandate. The following related services are offered at Edward R. Murrow High School:

- Counseling
- Speech
- Occupational Therapy
- Physical Therapy
- Orientation and Mobility Services
- Paraprofessional