

Hanover High School



287 Cedar Street
Hanover, MA 02339
(781) 878-5450

Matthew J. Paquette
Principal

Dr. Hugh T. Galligan
~~Assistant-Associate~~ Principal

Dr. Sheila M. Walsh
Humanities Director

Matthew M. Plummer
STEM Director

PROGRAM OF STUDIES
20187-20198

Hanover High School

Principal

Matthew J. Paquette

Associate Principal

Dr. Hugh T. Galligan

Humanities Director

Dr. Sheila M. Walsh

STEM Director

Matthew M. Plummer

Superintendent

Matthew A. Ferron

Assistant Superintendent

Debbie St. Ives

Director of Pupil Personnel

Joan Woodward

Business Manager

Dr. Thomas R. Raab

School Committee

John Geary, Chairperson
Ruth Lynch, Vice Chairman
Elizabeth Corbo
Kim Mills-Booker
Leah Miller

20176-20187 School Council Members

Co-Chairs

Matthew J. Paquette
Patricia Elkhill

Faculty

Jan Curley
Steven Rodday

Parents

Sandi Leitaio
Jae McCabe Picard
Patti Taylor

Students

~~Callie Hoadley '17~~
~~Alissa Tofuri '17~~
Sierra Little-Gill '18
Audrey Simon '18
Stephen Gill '19
Chris Acampora '19

Community Member

Carol Souza

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COURSE DESCRIPTIONS

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“The mission of the Hanover Public Schools is to guide each and every student to thrive in a global society.”

**Hanover High School
Core Values and Beliefs**

The Hanover High School community provides a competitive and challenging curriculum specific to individual educational needs, empowering students to succeed in the academic, social, and civic arenas.

We believe that respect, compassion, and empathy promote a positive climate that fosters school spirit and unity.

We believe in the importance of collaboration through active participation and accountability in solving problems and accomplishing goals by working with others.

Within a safe and secure environment, students develop academic and personal independence, self-motivation, artistic appreciation, creativity, social responsibility, and global awareness.

21st Century Learning Expectations

Academic

- The HHS graduate reads actively and critically.
- The HHS graduate writes effectively to construct and convey meaning.
- The HHS graduate speaks effectively.
- The HHS graduate is a responsible and proficient user of current technology and is receptive to emerging technology.
- The HHS graduate creatively applies concepts to interpret information, to solve problems, and to justify solutions.

Social

- The HHS graduate practices personal wellness.
- The HHS graduate acts responsibly and works ethically.

Civic

- The HHS graduate is an active citizen who demonstrates an understanding of civic responsibility and worldwide current events.

Adopted by HHS Faculty: February 06, 2018

Adopted by Hanover School Committee: TBA

~~Adopted by HHS Faculty: January 18, 2011~~

~~Adopted by Hanover School Committee: February 16, 2011~~

21st Century Learning Expectations Matrix Assessment Assignments

	The HHS graduate reads actively and critically.	The HHS graduate writes effectively to construct and convey meaning.	The HHS graduate speaks effectively.	The HHS graduate is a responsible and proficient user of current technology and is receptive to emerging technology.	The HHS graduate creatively applies concepts to interpret information, to solve problems, and to justify solutions.	The HHS graduate practices personal wellness.	The HHS graduate acts responsibly and works ethically.	The HHS graduate is an active citizen who demonstrates an understanding of civic responsibility and worldwide current events.
English	X	X	X					
Social Studies	X	X						X
Foreign Languages	X	X	X					
Mathematics				X	X			
Business				X	X			
Science/ Engineering				X	X			X
Art	X		X				X	
Music	X	X					X	
Phys. Ed/ Wellness						X	X	

Consistent with our Core Belief that the Hanover High School community provides a competitive and challenging curriculum empowering students to succeed in the academic, social, and civic arenas, each of the departments listed above has been assigned responsibility to assess student learning for its designated 21st Century Learning Expectations. Analytic Rubrics, written to assess student progress in each of these areas, are incorporated into lessons as appropriate to give students an understanding of their progress in each of these areas. By the time a student graduates from Hanover High School, he/she will be given several opportunities to demonstrate knowledge in these critical learning expectations. Below are the rubrics that match each of the 21st Century Learning Expectations.

HHS Rubric for Academic Learning Expectation: The HHS graduate reads actively and critically.

Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text. **(R, RI.CCR.1)**

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Key Ideas and Details:	Cites textual evidence to support comprehension of texts using explicit information. Identifies central ideas or themes of a text, and recognizes that individuals, events, and ideas develop and interact over the course of a text.	Cites specific textual evidence to support comprehension of texts using both explicit and inferred information. Identifies central ideas or themes of a text, and recognizes key supporting details. Interprets how individuals, events, and ideas develop and interact over the course of a text.	Cites specific and relevant textual evidence to support comprehension of texts using both explicit and inferred information. Analyzes central ideas or themes of a text and summarizes key supporting details. Analyzes how and why individuals, events, and ideas develop and interact over the course of a text.	Cites complex and significant textual evidence to support comprehension of texts using both explicit and inferred information. Evaluates central ideas or themes of a text, analyzes their development, and incorporates key supporting details. Evaluates how and why individuals, events, and ideas develop and interact over the course of a text.
Craft and Structure:	Recognizes that words and phrases in text, including technical, connotative, and figurative meanings, shape meaning and tone. Identify text organizational features (e.g. paragraphs, chapters, scenes, or stanzas) as parts of a larger structure. Identifies information in texts in terms of purpose and audience.	Interprets words and phrases in text, including technical, connotative, and figurative meanings, and determines how they shape meaning and tone. Interprets how text organizational features (e.g. paragraphs, chapters, scenes, or stanzas) relate to each other as parts of a larger structure. Recognizes that information in texts in terms of purpose and audience shapes the content and style of a text.	Examines words and phrases in text, including technical, connotative, and figurative meanings, and analyzes how they shape meaning and tone. Analyzes how text organizational features (e.g. paragraphs, chapters, scenes, or stanzas) relate to each other as parts of a larger structure to construct and convey meaning. Examines how information in texts in terms of purpose and audience shapes the content and style of a text.	Analyzes words and phrases in text, including technical, connotative, and figurative meanings, and evaluates how they shape meaning and tone. Evaluates how text organizational features (e.g. paragraphs, chapters, scenes, or stanzas) relate to each other as parts of a larger structure to construct and convey meaning. Evaluates how information in texts in terms of purpose and audience shapes the content and style of a text.
Integration of knowledge and Ideas: **Argument Only	Recognizes that two or more texts can address similar themes or topics. ** Recognizes the argument and specific claims in a text.	Interprets how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. ** Interprets the argument and specific claims in a text.	Analyzes how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. ** Analyzes the argument and specific claims in a text.	Evaluates how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. ** Delineates and evaluates the argument and specific claims in a text.
Text Complexity:	Reads and comprehends literary and informational texts.	Reads and comprehends basic literary and informational texts proficiently.	Reads and comprehends literary and informational texts independently and proficiently.	Reads and comprehends complex literary and informational texts independently and proficiently.

HHS Rubric for Academic Learning Expectation: The HHS graduate writes effectively to construct and convey meaning.

Write **ARGUMENTS** to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. (W.CCR.1)

Levels of Achievement

Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Claim/Thesis: The text introduces a clear, arguable claim that can be supported by reasons and evidence.	The text contains an unclear or emerging claim that suggests a vague position. The text attempts a structure and organization to support the position.	The text introduces a claim that is arguable and takes a position. The text has a structure and organization that is aligned with the claim.	The text introduces a precise claim that is clearly arguable and takes an identifiable position on an issue. The text has an effective structure and organization that is aligned with the claim.	The text introduces a compelling claim that is clearly arguable and takes a purposeful position on an issue. The text has a structure and organization that is carefully crafted to support the claim.
Organization/Development: The text provides sufficient data and evidence to back up the claim while pointing out the strengths and limitations of both the claim and counterclaim. The text provides a conclusion that supports the argument.	The text provides data and evidence that attempt to back up the claim and unclearly addresses counterclaims or lacks counterclaims. The conclusion merely restates the position.	The text provides data and evidence to back up the claim and addresses counterclaims. The conclusion ties to the claim and evidence.	The text provides sufficient and relevant data and evidence to back up the claim and fairly addresses counterclaims. The conclusion effectively reinforces the claim and evidence.	The text provides convincing and relevant data and evidence to back up the claim and skillfully addresses counterclaims. The conclusion effectively strengthens the claim and evidence.
Audience: The text anticipates the audience's knowledge level, concerns, values, and possible biases about the claim.	The text illustrates an inconsistent awareness of the audience's knowledge level.	The text considers the audience's knowledge level, concerns, values, and possible biases about the claim.	The text anticipates the audience's knowledge level, concerns, values, and possible biases about the claim.	The text consistently addresses the audience's knowledge level, concerns, values, and possible biases about the claim.
Cohesion: The text uses words, phrases, and clauses as well as varied syntax to link the major sections of the text. The text creates cohesion and clarifies the relationship among all elements of the argument.	The text contains limited words, phrases, and clauses to link the major sections of the text. The text attempts to connect the claim and reasons.	The text uses words, phrases, and clauses as well as varied syntax to link the major sections of the text. The text connects the claim and the reasons. The text links the counterclaims to the claim.	The text skillfully uses words, phrases, and clauses as well as varied syntax to link the major sections of the text. The text identifies the relationships between the claim and reasons as well as the evidence. The text effectively links the counterclaims to the claim.	The text strategically uses words, phrases, and clauses as well as varied syntax to link the major sections of the text. The text explains the relationships between the claim and reasons as well as the evidence. The text strategically links the counterclaims to the claim.
Style and Conventions: The text presents a formal, objective tone that demonstrates standard English conventions of usage and mechanics.	The text illustrates a limited awareness of formal tone. The text demonstrates little accuracy in standard English conventions of usage and mechanics.	The text presents a formal tone. The text demonstrates some accuracy in standard English conventions of usage and mechanics.	The text presents a formal, objective tone. The text demonstrates control of standard English conventions of usage and mechanics.	The text presents an engaging, formal, and objective tone. The text intentionally uses standard English conventions of usage and mechanics.

HHS Rubric for Academic Learning Expectation: The HHS graduate writes effectively to construct and convey meaning.

Write **INFORMATIVE/EXPLANATORY** texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content. **(W.CCR.2)**

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Focus/Thesis/Ideas: The text focuses on a topic to inform a reader with ideas, concepts, and information that creates a unified whole.	The text has an unclear topic with some ideas, concepts, and information.	The text has a topic that informs the reader with accurate ideas, concepts, and information that creates a unified whole.	The text focuses on an interesting topic that informs the reader with accurate ideas, concepts, and information that creates a unified whole.	The text clearly focuses on a compelling topic that informs the reader with accurate ideas, concepts, and information that creates a unified whole.
Organization/Development: The text presents facts, extended definitions, concrete details, quotations, and examples. The text provides a conclusion that supports the topic and examines its implications and significance.	The text provides facts, definitions, details, quotations, and/or examples that attempt to develop and explain the topic. The text may provide a conclusion that supports the topic.	The text provides facts, extended definitions, concrete details, quotations, and/or examples that develop the topic. The text provides a conclusion that supports the topic and examines its implications and significance.	The text provides relevant facts, extended definitions, concrete details, quotations, and/or examples that sufficiently develop and explain the topic. The text provides a conclusion that supports the topic and examines its implications and significance.	The text provides significant facts, extended definitions, concrete details, quotations, and/or examples that thoroughly develop and explain the topic. The text provides a conclusion that supports the topic and examines its implications and significance.
Audience: The text anticipates the audience's background knowledge of the topic.	The text illustrates an inconsistent awareness of the audience's knowledge level about the topic.	The text considers the audience's knowledge level about the topic.	The text anticipates the audience's knowledge level and concerns about the topic.	The text consistently addresses the audience's knowledge level and concerns about the topic.
Cohesion: The text explains the relationship between ideas and concepts. The text includes appropriate and varied transitions and syntax.	The text contains limited words, phrases, and clauses to link the major sections of the text. The text attempts to connect the topic and the examples and/or facts.	The text uses words, phrases, and clauses to link the major sections of the text. The text connects the topic and the examples and/or facts.	The text skillfully uses words, phrases, and clauses to link the major sections of the text. The text identifies the relationship between the topic and the examples and/or facts.	The text strategically uses words, phrases, and clauses to link the major sections of the text. The text explains the relationships between the topic and the examples and/or facts.
Language and Style: The text presents a formal style and objective tone and uses language, vocabulary, and other literary techniques to manage the topic.	The Text illustrates a limited awareness of formal tone. The text attempts to use language, vocabulary, and some literary techniques.	The text presents a formal, objective tone. The text uses relevant language, vocabulary, and other literary techniques to manage the complexity of the topic.	The text presents a formal objective tone. The text uses precise language, vocabulary, and other literary techniques to manage the complexity of the topic.	The text presents an engaging, formal, and objective tone. The text uses sophisticated language, vocabulary, and other techniques to manage the complexity of the topic.
Conventions: The text demonstrates standard English conventions of usage and mechanics while attending to the norms of the discipline in which they are writing (MLA, APA, etc.).	The text contains multiple inaccuracies in standard English conventions of usage and mechanics.	The text demonstrates some accuracy in standard English conventions of usage and mechanics.	The text demonstrates standard English conventions of usage and mechanics while attending to the norms of the discipline in which they are writing (MLA, APA, etc.).	The text demonstrates standard English conventions of usage and mechanics while suitably attending to the norms of the discipline in which they are writing (MLA, APA)

HHS Rubric for Academic Learning Expectation: The HHS graduate writes effectively to construct and convey meaning.

Write **NARRATIVES** to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. **(W.CCR.3)**

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Exposition: The text sets up the narrative by introducing a conflict, observation, situation, setting, narrator and/or characters.	The text provides a setting with a vague conflict, situation, or observation with an unclear point-of-view. It introduces a narrator and/or undeveloped characters.	The text orients the reader by setting out a conflict, situation, or observation and its significance. It establishes one point of view and introduces a narrator and/or developed characters.	The text engages and orients the reader by setting out a conflict, situation, or observation and its significance. It establishes one or multiple points-of-view and introduces a narrator and/or well-developed characters.	The text creatively engages the reader by setting out a well-developed conflict, situation, or observation and its significance. It establishes one or multiple points-of-view and/or complex characters.
Narrative techniques and Development: The narrative is developed using dialogue, pacing, description, reflection, and/or plot lines to develop experiences, events, and/or characters.	The text uses some narrative techniques, such as dialogue or description and merely retells events and/or experiences.	The text uses narrative techniques, such as dialogue, description, and reflection to show events and/or experiences.	The text demonstrates deliberate narrative techniques – such as dialogue, pacing, description, reflection, and/or multiple plot lines – to develop experiences, events, and/or characters.	The text demonstrates sophisticated narrative techniques – such as engaging dialogue, artistic pacing, vivid description, complex reflection, and/or multiple plot lines – to develop experiences, events, and/or characters.
Organization and Cohesion: The organization follows a logical sequence of events.	The text creates a sequence or progression of experiences or events.	The text creates a logical progression of experiences or events using some techniques – such as flashback, foreshadowing, suspense, etc. – to sequence events so that they build on one another to create a coherent whole.	The text creates a smooth progression of experiences or events using a variety of techniques – such as flashback, foreshadowing, suspense, etc. – to sequence events so that they build on one another to create a coherent whole.	The text creates a seamless progression of experiences or events using multiple techniques – such as flashback, foreshadowing, suspense, etc. – to sequence events so that they build on one another to create a coherent whole.
Style and Conventions: The text uses sensory language and details to create a vivid picture of the events, setting, and characters.	The text uses words and phrases, telling details to convey experiences, events, settings, and/or characters.	The text uses words and phrases, telling details and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.	The text uses precise words and phrases, showing details and controlled sensory language and mood to convey a realistic picture of the experiences, events, setting, and/or characters.	The text uses eloquent words and phrases, showing details and rich sensory language and mood to convey a realistic picture of the experiences, events, setting, and/or characters.
Conclusion: The text uses a conclusion that follows from the course of the narrative. The conclusion provides a reflection on or a resolution to the events.	The text provides a conclusion that follows from what is experienced, observed, or resolved over the course of the narrative.	The text provides a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.	The text builds to a conclusion that logically follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.	The text moves to a conclusion that artfully follows from and thoughtfully reflects on what is experienced, observed, or resolved over the course of the narrative.

HHS Rubric for Academic Learning Expectation: The HHS graduate speaks effectively.

Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks (SL.CCR.4)

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Ideas and Content	Shares inaccurate or simplistic ideas and content. Lacks understanding of content.	Shares researched ideas and content. Demonstrates cursory understanding of content.	Shares accurate well-researched ideas and content. Demonstrates understanding of content.	Shares fresh, well-researched ideas and content. Demonstrates mastery of content.
Organization	Lacks organizational techniques, omitting either introductory statement, concluding statement, or logical progression of ideas. Speaks without relevance and purpose.	Uses some organizational techniques; omits either introductory statement, or concluding statement, with no logical progression of ideas. Speaks with minimal relevance and purpose.	Organizes adequate introductory and concluding statements, bookending logical progression of ideas. Speaks with relevance and purpose.	Organizes strong introductory and concluding statements, bookending logical progression of ideas. Speaks with pointed relevance and purpose.
Delivery	Uses none or few explicit techniques for oral presentations (e.g., modulation of voice, inflection, tempo, enunciation, pronunciation and eye contact).	Uses some explicit techniques for oral presentations (e.g., modulation of voice, inflection, tempo, enunciation, pronunciation and eye contact).	Uses a variety of explicit techniques for oral presentations (e.g., modulation of voice, inflection, tempo, enunciation, pronunciation and eye contact).	Uses a wide variety of explicit techniques for oral presentations (e.g., modulation of voice, inflection, tempo, enunciation, pronunciation and eye contact).

HHS Rubric for Academic Learning Expectation: The HHS graduate is a responsible and proficient user of current technology and is receptive to emerging technology.

(ISTS.nets-s.9-12)

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Safe and Appropriate Use	Rarely uses technology in a safe and appropriate manner. Requires significant adult guidance.	Occasionally uses technology in a safe and appropriate manner. Requires regular adult guidance.	Frequently uses technology in a safe and appropriate manner. Requires minimal adult guidance.	Consistently uses technology in a safe and appropriate manner. Requires no adult guidance.
Responsibility	Rarely uses technology in a responsible manner that is consistent with the school policies.	Occasionally uses technology in a responsible manner that is consistent with the school policies.	Frequently uses technology in a responsible manner that is consistent with the school policies.	Consistently uses technology in a responsible manner that is consistent with the school policies.
Efficiency	Rarely works independently to select and employ correct technology. Does not increase productivity.	Occasionally works independently to select and employ correct technology. Minimally increases productivity.	Frequently works independently to select and employ correct technology. Moderately increases productivity.	Consistently works independently to select correct technology. Significantly increases productivity.
Receptivity	Rarely seeks to implement new, different, or emerging technology.	Occasionally seeks to implement new, different, or emerging technology.	Frequently seeks to implement new, different, or emerging technology.	Consistently seeks to implement new, different, or emerging technology.
Application	Uses technology to list and identify information.	Uses technology to comprehend and apply information.	Uses technology to analyze information.	Uses technology to synthesize or evaluate information.

HHS Rubric for Academic Learning Expectation: The HHS graduate creatively applies concepts to interpret information, to solve problems, and to justify solutions.

Make sense of problems and persevere in solving them.

(CCSS.MATH.PRACTICE.MP1)

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Problem	Demonstrates a limited ability in identifying a problem statement or related contextual factors.	Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, but problem statement is superficial.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed.	Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.
Strategies	Identifies one or more approaches for solving the problem that do not apply within a specific context.	Identifies only a single approach for solving the problem that does apply within a specific context.	Identifies multiple approaches for solving the problem, only some of which apply within a specific context.	Identifies multiple approaches for solving the problem that apply within a specific context.
Solutions	Proposes a solution/hypothesis that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.	Proposes one solution/hypothesis that is "off the shelf" rather than individually designed to address the specific contextual factors of the problem.	Proposes one or more solutions/hypotheses that indicates comprehension of the problem. Solutions/hypotheses are sensitive to contextual factors as well as the one of the following: ethical, logical, or cultural dimensions of the problem.	Proposes one or more solutions/hypotheses that indicates a deep comprehension of the problem. Solutions/hypotheses are sensitive to contextual factors as well as all of the following: ethical, logical, and cultural dimensions of the problem.
Evaluate	Evaluation of solutions is superficial (e.g., contains cursory, surface level explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is brief (e.g., explanation lacks depth) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is adequate (e.g., contains thorough explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is deep and elegant (e.g., contains thorough and insightful explanation) and includes, deeply and thoroughly, all of the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.
Implement	Implements the solution that does not directly address the problem statement.	Implements the solution that addresses the problem statement but ignores relevant contextual factors.	Implements the solution that addresses multiple contextual factors of the problem in a surface manner.	Implements the solution that addresses thoroughly and deeply multiple contextual factors of the problem.
Outcomes	Reviews results superficially in terms of the problem defined with no consideration of need for further work.	Reviews results relative to the problem defined with some consideration of need for further work.	Reviews results relative to the problem defined with some consideration of need for further work.	Reviews results relative to the problem defined with thorough, specific considerations of need for further work.

HHS Rubric for Social Learning Expectation: The HHS graduate practices personal wellness.

Levels of Achievement				
Physical Education				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Team Sports	Demonstrates limited understanding of team concepts, strategies, rules and participation.	Demonstrates basic understanding of team concepts, strategies, rules and participation.	Demonstrates adequate understanding of team concepts, strategies, rules and participation.	Demonstrates knowledgeable understanding of team concepts, strategies, rules and participation.
Individual Sports	Demonstrates limited understanding of individual sports concepts, strategies and rules.	Demonstrates basic understanding of individual sports concepts, strategies and rules.	Demonstrates adequate understanding of individual sports concepts, strategies and rules.	Demonstrates knowledgeable understanding of individual sports concepts, strategies and rules.
Lifetime Activities	Demonstrates limited understanding of lifetime fitness, movement and setting personal goals.	Demonstrates basic understanding of lifetime fitness, movement and setting personal goals.	Demonstrates adequate understanding of lifetime fitness, movement and setting personal goals.	Demonstrates knowledgeable understanding of lifetime fitness, movement and setting personal goals.

Levels of Achievement				
Wellness				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Mental and Emotional	Demonstrates limited understanding and treatment of stress, anxiety, depression and self-esteem.	Demonstrates basic understanding and treatment of stress, anxiety, depression and self-esteem.	Demonstrates adequate understanding and treatment of stress, anxiety, depression and self-esteem.	Demonstrates knowledgeable understanding and treatment of stress, anxiety, depression and self-esteem.
Social	Demonstrates limited understanding and awareness of types of abuse, healthy relationships, and responsible decision-making and problem solving skills.	Demonstrates basic understanding and awareness of types of abuse, healthy relationships, and responsible decision-making and problem solving skills.	Demonstrates adequate understanding and awareness of types of abuse, healthy relationships, and responsible decision-making and problem solving skills.	Demonstrates knowledgeable understanding and awareness of types of abuse, healthy relationships, and responsible decision-making and problem solving skills.
Safety and Prevention	Demonstrates limited understanding of the causes and effects of bullying, substance abuse, suicide, and risky behavior, as well as disease prevention and life saving skills.	Demonstrates basic understanding of the causes and effects of bullying, substance abuse, suicide, and risky behavior, as well as disease prevention and life saving skills.	Demonstrates adequate understanding of the causes and effects of bullying, substance abuse, suicide, and risky behavior, as well as disease prevention and life saving skills.	Demonstrates knowledgeable understanding of the causes and effects of bullying, substance abuse, suicide, and risky behavior, as well as disease prevention and life saving skills.

HHS Rubric for Social Learning Expectation: The HHS graduate acts responsibly and works ethically.

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Attendance / Promptness	Arrives late to class more than once a week and/or has poor class attendance.	Arrives late to class more than once every two weeks and regularly attends class.	Arrives late to class less than once every two weeks and regularly attends class.	Arrives promptly and regularly attends class.
Participation and Preparation	Contributes rarely or never to class. Is unprepared for class.	Contributes occasionally to class by offering ideas and asking questions. Is occasionally prepared for class.	Contributes to class by offering relevant ideas and asking appropriate questions. Is usually prepared for class.	Contributes by exhibiting a mastery of subject matter by offering analysis, thought provoking ideas, and probing questions. Is always prepared for class.
Listening Skills	Listens rarely and requires continuous prompts to respond. Needs directions repeated. Is off task and disruptive.	Listens selectively and requires prompts to respond. Needs directions repeated occasionally. Is off task at times.	Listens attentively and rarely needs prompts to respond. Follows directions. Remains on task.	Listens actively and respectfully. Responds independently and conscientiously while incorporating the ideas of others. Follows directions independently and completes task.
Conduct and Accountability	Fails to meet classroom and school expectations. Demonstrates no individual accountability regarding course work, classroom interactions, and social behaviors.	Meets classroom and school expectations selectively. Demonstrates minimal individual accountability regarding course work, classroom interactions, and social behaviors.	Meets classroom and school expectations. Demonstrates individual accountability regarding course work, classroom interactions, and social behaviors.	Exceeds classroom and school expectations while exhibiting leadership qualities. Demonstrates a high level of individual accountability and initiative regarding course work, classroom interactions, and social behaviors

HHS Rubric for Civic Learning Expectation: The HHS graduate is an active citizen who demonstrates an understanding of civic responsibility and worldwide current events.

Levels of Achievement				
Criteria	1 Beginning	2 Developing	3 Proficient	4 Exemplary
Current Events	Demonstrates little to no comprehension of current political, social, environmental and economic situations across the globe.	Demonstrates some comprehension of current political, social, environmental and economic situations across the globe.	Demonstrates good comprehension of current political, social, environmental and economic situations across the globe.	Demonstrates an excellent comprehension of current political, social, environmental and economic situations across the globe.
Understanding Perspectives	Analyzes little or no political, social, environmental and economic issues from any perspective.	Analyzes some political, social, environmental and economic issues from their own perspective.	Analyzes political, social, environmental and economic issues from more than one perspective.	Analyzes political, social, environmental and economic issues in a variety of perspectives.
Understanding Impact of Decisions	Demonstrates little to no understanding of the effects of various political, social, environmental and economic decisions and actions.	Demonstrates some understanding of the effects of various political, social, environmental and economic decisions and actions.	Demonstrates a good understanding of the effects of various political, social, environmental and economic decisions and actions.	Demonstrates an excellent understanding of the effects of various political, social, environmental and economic decisions and actions.
Civic Engagement	Participates a little or not at all in current political, social, environmental and economic situations.	Participates to some degree in current political, social, environmental and economic situations.	Participates well in current political, social, environmental and economic situations.	Participates extremely well in current political, social, environmental and economic situations.

PRINCIPAL'S WELCOME

Dear Students and Parent/Guardians:

The Program of Studies includes course descriptions that assist you as you plan your course selections for the year. Greater detail can be provided by faculty, directors, and guidance counselors. Promotion requirements and graduation requirements are clearly defined in the Academic Information section, as well as in the introduction provided by each department area.

You are encouraged to challenge yourself academically by enrolling in courses that demand excellence in your schoolwork. Meeting these challenges will provide you with the skills to meet the high expectations of colleges and the work place. Our goal is to provide you with the 21st century skills needed for your success after graduation. The Massachusetts Department of Elementary and Secondary Education identifies broad 21st Century themes taken from The Partnership for 21st Century Skills. These include: (a) Information and Communication, (b) Thinking and Problem Solving, (c) Interpersonal and Self-direction Skills, (d) Global Knowledge and Understanding, (e) Financial, Economic and Business Literacy, and (f) Civic Literacy. These themes are woven throughout the course descriptions.

As you select courses it is important to involve your parents, directors, and guidance counselor in the decision making process. Our experienced and professional staff will provide you with the support, encouragement, and challenges that you need to become a successful individual in school and in life.

Parents/Guardians, I encourage you to participate actively in the course selection process this year as your student makes decisions about his/her course of study for next year. Your involvement is critical to ensuring that your child enrolls in the appropriate courses and makes decisions that will have an impact on their future goals and aspirations. If you have questions, please do not hesitate to contact your student's guidance counselor, the Humanities or STEM Director, or a member of the faculty or administration.

Very truly yours,

Matthew J. Paquette
Principal

SYNOPSIS OF FEDERAL CIVIL RIGHTS LAWS AND DISTRICT COORDINATOR INFORMATION PUBLIC SCHOOLS

SYNOPSIS OF LAWS

Title VI of the Civil Rights Act of 1964

Coordinator: Thomas Raab 1-781-878-0786

Statute prohibits discrimination on the grounds of race, color or national origin by recipients of federal financial assistance. This statute ensures that individuals are not excluded from participation in program or activities receiving federal funds (or the benefits of) on account of their membership in one of these protected categories (42 USC S2000d). This statute has been interpreted to prohibit the denial of equal access to education because of a language minority student's limited proficiency in English.

Title IX of the Education Amendments of 1972

**Coordinators: Hugh Galligan 1-781-878-5450
Anna Hughes 1-781-871-1122**

Title IX of the Education Amendments of 1972 provides that no individual may be discriminated against on the basis of sex in any education program or activity receiving federal financial assistance. Title IX requires that schools adopt and publish a policy against sex discrimination and have grievance procedures through which students can complain of alleged sex discrimination, including sexual harassment. State law requires Massachusetts employers to have a policy against sexual harassment. (M.G.L. Ch. 151B, S3A)

Section 504 of the Rehabilitation Act of 1973

Coordinator: Jane DeGrenier 1-781-826-2631

Section 504 provides that no otherwise qualified individual with a disability shall solely by reason of his/her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. The regulations implementing Section 504 require that public schools provide a free appropriate public education to each qualified handicapped person who is in the recipient's jurisdiction, regardless of the nature of severity of the person's handicap. (34 CF104.33)

Americans with Disabilities Act of 1990

Coordinator: Thomas Raab 1-781-878-0786

The regulations implementing the ADA provide that: "A public entity that employs 50 or more persons shall designate at least one employee to coordinate its efforts to comply with and carry out its responsibilities under this part, including any investigation of any complaint communicated to it alleging its noncompliance with this part or alleging any actions that would be prohibited by this part. The public entity must make available to all interested individuals the name, office address, and telephone number of the employee or employees designated pursuant to this paragraph." (34 CFR 35.107(a))

EQUAL EDUCATIONAL OPPORTUNITIES LAWS

Equal Educational Opportunities Act of 1974

Coordinator: Daniel Birolini 1-781-871-1122

This federal statute prohibits states from denying equal educational opportunities to an individual based on certain protected classifications including national origin. It specifically prohibits denying equal educational opportunities by failing to take appropriate action to overcome language barriers that impede equal participation by its students in its instructional programs. (20 USC S1203(f))

Mass. General Laws CH.76, S5 (also known as Chapter 622)

Coordinator: Michael Oates 1-781-878-7228

This state law provides that "[n]o person shall be excluded from or discriminated against in admission to a public school of any town, or in obtaining the advantages, privileges and courses of study of such public school on account of race, color, sex, religion, national origin, or sexual orientation."

McKinney-Vento Homeless Assistance Program

Homeless Liaison: Joan Woodward 1-781-878-0786

McKinney-Vento is the primary piece of federal legislation dealing with the education of children and youth experiencing homelessness in U.S. public schools. It was reauthorized as Title X, Part C, of the No Child Left Behind Act in January 2002.

SPECIAL EDUCATION

Chapter 688 (transition planning)

Coordinator: Joan Woodward 1-781-878-0786

School districts file a Chapter 688 referral for students with severe disabilities who will need continued services and supports after their eligibility for special education ceases. School districts must make Chapter 688 referrals at least 2 years before the student is expected to graduate from school or turn 22 years of age. This allows time to determine the student's eligibility for adult services and for agencies to include the anticipated cost of services for the student in its budget request that it submits to the state legislature each year.

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HOW TO USE THE PROGRAM OF STUDIES

Courses detailed in this *Program of Studies* indicate Hanover High School's commitment to equity and excellence for all students. However, if an insufficient number of students select a specific course, it may not be possible to offer the course. In many cases where courses are oversubscribed, priority for enrollment will be given to seniors, juniors, sophomores, and finally freshmen. Students who are unable to enroll in a course of their first choice will be provided a course by his/her counselor to give the student a full schedule. Students may meet with the counselor to make changes should this occur.~~offered an alternate course to ensure a full schedule.~~ Students are encouraged to plan a course of studies for four years. Please take some time to review the graduation requirements that are detailed in this section and utilize the four-year sequence planner at the end of this booklet. Schedule your program with your future in mind. Students who intend to continue their education after graduation must pay close attention to college admissions requirements when planning a four-year sequence. Levels are designated in most courses and all levels are college preparatory. The curriculum for all courses is aligned with the Department of Elementary and Secondary Education frameworks and the Common Core Standards as required. Seek input carefully and take advantage of the advice available from teachers, counselors, administrators as well as parents/guardians. If you have questions about the types of courses you should take in order to be equipped for a specific career field or specific type of college or university, please consult your Guidance Counselor ahead of time.

Advanced Placement (AP) – Advanced Placement courses involve a prescribed curriculum determined by the College Entrance Examination Board. The course work is considered college level preparation, carries additional weight in computing grade point average, offers the opportunity to earn college credit and is designated to be very rigorous and challenging. Students considering enrollment in an AP course should speak with their guidance counselor, the AP teacher, and their parents/guardians and consult each department course description for AP courses offered in each department before making any decisions. All AP courses require summer work prior to the start of the school year. ~~Students must sign a contract stating they will finish the summer work or be dropped from the course in September.~~ Any student who enrolls in an AP course is required to take the AP exam in May of the school year. Students must pay for the AP exams before January 15. Financial assistance is available upon request.

Honors Level (H) – These courses are recommended for students who demonstrate high academic achievement through a combination of motivation and aptitude. These courses contain considerable enrichment and acceleration. Instruction assumes that students are able to grasp content and concepts on initial presentation. These courses emphasize higher order thinking in analysis, synthesis and evaluation. Outside reading, problem-solving and study are required. Students are expected to show initiative with respect to organization of time, long-term assignments, and seeking extra help. Written work must exhibit complexity in structure, thought, and vocabulary.

College Level One Preparatory (1) – These courses are demanding and require a great deal of outside preparation. Student work requires thoughtful application and analysis of content. Consolidation and application of concepts are developed both independently and with teacher guidance. Written work exhibits proficiency in sentence structure, sophistication of vocabulary and in the development and integration of themes and concepts. Outside reading, problem-solving, and study precede and follow classroom discussions. All courses in this Program of Studies are college preparatory courses, unless identified as honors (H) or advanced placement (AP).

College Level Two (2)—These courses are designed to develop a thorough understanding of the fundamentals of a subject, the skills needed to comprehend relevant material, and the application of concepts. Content is presented at a deliberate pace in both abstract and experiential formats. Directed instructional support is provided by the teacher with the goal of building independent study skills. Written work is clear, thoughtful, and demonstrates a basic understanding of vocabulary and accuracy of expression. Outside reading, writing, and problem solving are structured by the teacher and follow classroom discussions.

ACADEMIC INFORMATION

Consistent with Hanover High School's Core Values and Beliefs that the **"Hanover High School community provides a competitive and challenging curriculum specific to individual educational needs, empowering students to succeed in the academic, social, and civic arenas"** and the Hanover Public School System's belief in equity and excellence for all students, Hanover High School stresses academic rigor through challenging graduation requirements.

Graduation Requirements

All students are required to earn 125 credits as well as earn a Competency Determination through participation in MCAS testing in order to graduate. In order to earn a Competency Determination, all students must score above a 240 on English Language Arts and Math MCAS exams or successfully complete an Educational Proficiency Plan (EPP) if their scores range between 220-238. In addition, all students must pass the Science MCAS with a score of 220 or better.

Community Service Graduation Requirement – 40 Hours

Hanover High School is committed to the benefits of a Community Service Graduation Requirement. Our Core Values and Beliefs Statement summarizes, "We believe that respect, compassion, and empathy promote a positive climate that fosters school spirit and unity." Further, our 21st Century Learning Expectations require that HHS students act responsibly and are "active citizens who demonstrate an understanding of civic responsibility." Therefore, community service is an opportunity for students to become active citizens by developing an appreciation for the responsibility we all have as citizens to contribute to the improvement of the communities in which we live. In doing so, students will also have the opportunity to enhance their personal growth, build their self-esteem, and develop their social skills. By making community service a graduation requirement, Hanover High School recognizes the need for all students to become active citizens.

Definition: Community Service is an action, performance, or a "hands on" activity by an individual or group without compensation, whose effort will directly benefit others. *Participation or membership in an extra-curricular club or organization does not constitute community service (i.e., meetings or rehearsals). Taking part in a community service activity that is done by the extra-curricular club would count.*

Students will be required to do 10 hours of community service per year for a total of 40 hours. In this way, students remain active in their community for all four years. Transfer students would be required to do 10 hours of community service for each year they attend HHS. In as much as these are already embedded into the curriculum, the Senior Humanities Projects will not count toward the ten hours for the purposes of this graduation requirement. An informational presentation on the procedures for procuring and documenting community service will be given to all students at the start of each year, and regular communications will be made available throughout the year. It is possible to complete these yearly requirements in the summer prior to the next school year. The ten hours of Community Service must be accrued between July 1 and June 30 of each school year with the exception of senior year where the community service activity must be completed by May 1st. Students will be able to log their hours directly into the Aspen Student Information System for approval, and they will receive several communications throughout the year regarding service opportunities and their individual progress towards this graduation requirement. The Hanover Public Schools Family and Community Engagement Office (FACE) oversees all community service communications. Their email address is communityservice@hanoverschools.org.

Humanities (45 credits)

- English – 20 credits (4 years)
 - Students may not take more than one English course per year until senior year. During senior year, students may take English 11 and senior Humanities as necessary to graduate.
- History – 15 credits (3 years)
 - Must include two years of US History and one year of World History
- World Language – 10 credits

STEM (45 credits)

- Math – 20 credits (4 years)
- Science – 15 credits (3 years)
 - Must include biology as well as two additional lab sciences
- Fine and Applied Arts – 10 credits
 - Art, Engineering, Business and Music

Physical Education/Wellness - 10 credits

Core Electives – 25 credits

- Business, Technology, or any of the courses above except PE/Wellness, which is already required.

Total: 125 credits to graduate

Promotion Requirements

Grade 9 to Grade 10 – 30 credits

Grade 10 to Grade 11 – 60 credits

Grade 11 to Grade 12 – ~~92~~3 credits

Level Changes

The following grade recommendations serve as guidelines for students who seek to maintain or change levels. These grade recommendations are not cast in stone and serve to begin the conversation between you, your guidance counselor, teachers, and parents/guardians. In general a student should earn a C–or better to continue in a level one course or B– or better to continue in an honors course. It is recommended that a student earn B+ or better to move from college preparatory level one to honors course-work ~~or B– or better to move from a level two to level one course-work~~. Guidance Counselors consult with the Humanities or STEM director, teachers, parents, and students when the student requests a level change.

Initial Course Selection for Grade Nine

Course placement for grade nine students incorporates grades in their current eighth grade courses, teacher recommendations, MCAS test results, standardized test results, as well as student and parent requests. The high school guidance counselors meet with incoming ninth grade students in the spring of their eighth grade year during an assembly presentation to assist with their ninth grade course selection. A Curriculum Night is also held to acquaint parents/guardians and incoming eighth graders to Hanover High School and its rigorous academic program.

PSAT Registration

Consistent with our beliefs to provide “a challenging curriculum specific to individual educational needs”, Hanover High School is requiring all 10th and 11th grade students to take the PSAT/NMSQT in preparation for college and career. The exam will be administered in October during the school day. The score report from this

exam will provide the individualized educational tools necessary for our students to get an early start in preparation for college and career. HHS faculty will evaluate the results in the aggregate addressing school-wide strengths and weakness as well as overall Hanover High School curriculum design. The PSAT provides all students an opportunity to experience college level academic content and be evaluated accordingly. Any parents/guardians who have questions about this opportunity for all are urged to call the principal. The cost for the PSAT for 2017-2018 is \$15. Any student on free and reduced lunch will be exempt from payment. Financial aid is available upon request.

Summer School and Course Failure Options

Students who fail a course with a grade below a 50 must repeat the course for credit during the following school year. When a student fails a course with a 50 or higher, he/she may ~~participate inattend~~ a summer school program approved in advance by the administration, at the student's expense. Students may enroll in a maximum of two summer school classes in one summer for credit. If summer school is not an option, students may receive tutoring by a tutor certified in the subject area and approved by the administration. A total of 36 hours of tutoring must be completed and documentation provided to the principal upon completion. Documentation materials are available in guidance. Please see the student handbook for further applicable policy and information regarding summer school.

Withdrawal from a Course

Any withdrawal from a course after term one is indicated on the student's record by WP (if passing at the time of the withdrawal) or WF (if failing at the time of the withdrawal).

Calculation of Final Grades

Year course: Sum of the term grades times two, plus the final exam grade, all divided by 9.

Semester Course: Sum of the term grades times four, plus the final exam grade, divided by 9.

Grade Point Average (GPA)

Any leveled course ~~iswill be~~ part of the GPA. In order to compile a GPA, the "Weights for Final Grades" chart will be used. This chart ~~iswill be~~ used for both GPA and CLASS RANK. GPA will be listed on transcripts as a 4.0 scale ~~as of July, 2017~~.

Class Rank

All students are calculated in class rank. Any course that is leveled will be factored in determining class rank. Class rank will be determined at the end of the junior year and at the middle and third quarter of the senior year.

- A weighted numerical equivalent is assigned to the final grade of every leveled course. Failing grades are also included. See the following grid.
- Class Rank is determined by the sum of the final GPA equivalents divided by the number of leveled/weighted courses.
- Transfer grades and credits will be included for the purposes of calculating GPA for academic scholarship. A minimum of two years attendance at Hanover High School is required to be considered for Valedictorian and/or Salutatorian and academic scholarship awards based upon Grade Point Average.
- ~~WBeginning~~ with the Class of 2021, class rank will be listed in percentile rather than individual numeric ranking.

Weights for Final Grades, GPA, and Class Rank

Grade	Numeric	Equivalent	AP	Honors	CPL	Level 1
Level 2						
A+	97-100	5.1	4.8	4.3	3.8	
A	93-96	4.8	4.5	4.0	3.5	
A-	90-92	4.5	4.2	3.7	3.2	
B+	87-89	4.2	3.9	3.4	2.9	
B	83-86	3.9	3.6	3.1	2.6	
B-	80-82	3.6	3.3	2.8	2.3	
C+	77-79	3.3	3.0	2.5	2.0	

C	73-76	3.0	2.7	2.2	1.7
C-	70-72	2.7	2.4	1.9	1.4
D+	67-69	2.4	2.1	1.6	1.1
D	63-66	2.1	1.8	1.3	0.8
D-	60-62	1.8	1.5	1.0	0.5
F	59 below	0.0	0.0	0.0	0.0

Course Selections and Changes

- The master schedule of courses for the high school is determined by student requests in the spring of each year. Staffing is assigned based on student requests. Courses should be chosen carefully by students, who should seek the advice of faculty, guidance counselors, and parents/guardians.
- Courses requested by a student are not guaranteed to be a part of the student's schedule.
- At times, adjustments are made to student schedules because of conflicts which result when two courses are offered at the exact same time and options are not available. When such a conflict arises, students and parents/guardians are often consulted.
- Student initiated course changes begin with the student's guidance counselor. Changes involving errors, conflicts or necessary revisions are handled first. Course changes must be made in the best interest of the student's academic schedule. Requests made to change teachers will not be honored without permission of the principal.
- After the add/drop deadline has passed, the guidance counselor will initiate communication with the teacher, department head, director, and parent/guardian when schedule change or level drops are requested.
- All parental initiated schedule changes should be in writing with stated ~~reasons and~~ rationale for such a course change.
- The deadline for all add/drops is ~~one~~two weeks after the start of school.

Performance Reports

- Report cards are issued on a quarterly basis. Students receive report cards via Aspen. Specific dates when report cards are issued can be found in the Student Planner/Handbook. These dates are subject to change at the discretion of the principal based upon snow days.
- Interim Progress Reports are available to all students and parents in all subjects at the midpoint of every marking term via the parent portal. Parents are urged to stay in contact with teachers on a regular basis if they have concerns about their child's performance. Parental visits to the school should be made by appointment. Parent conferences are held twice a year at the end of the first and second terms.

Make-up Work Due To Absence

Completion of work missed by a student due to absence is the responsibility of the student. Parents should contact the Guidance Department for make-up work due to an extended absence of over 5 days. Students should contact teachers for absences less than 5 days. Incomplete work at the end of a marking period must be made up within two weeks. Failure to make up work in the given period of time will result in a failing grade for the specific assignments. The Principal has the discretion to extend time for make-up.

Test and Quiz Make up

Teachers are available during office hours as determined by the teacher. Teachers responsible for the instruction of different courses and levels may post a make-up schedule by course. It is the responsibility of the student to arrange make-up times for tests, quizzes and homework. Students have the equivalent number of days they had been absent plus one additional day to make up work.

College – Dual Enrollment

As part of the Massachusetts Education Reform Act, juniors and seniors with a B average or better at the high school level may qualify to take college level courses (not offered at Hanover High School) at any State College for high school credit. Students will be awarded a minimum of 2.5 credits for each semester course successfully completed. The Hanover School System is not responsible for tuition or transportation. -Additionally, Hanover High School offers a dual-enrollment program in partnership with Quincy College whereby adjunct-qualified HHS teachers may teach an approved HHS course that is recognized as a Quincy College course. There is a fee associated with this dual-enrollment opportunity. See your Guidance Counselor for more information.

School Accreditation

Hanover High School is accredited by the New England Association of Schools and Colleges (NEASC) which is one of six regional accrediting associations in the United States. NEASC conducts a comprehensive

evaluation of member secondary schools once every ten years. Association accreditation expresses confidence in the secondary schools' ability to meet predetermined standards in instruction, curriculum, assessment, leadership and community resources.

Massachusetts Four-Year ~~State College/University~~ Admission Requirements

- The following college preparatory courses must be taken and passed: English-4 years, Mathematics-4 years (Algebra 1 & 2, and Geometry or Trigonometry or comparable coursework), Science-3 years (3 lab sciences), Social Science-2 years (1 year of U.S. History), Foreign Language-2 courses (in a single language in high school), and Electives-2 years (from the above subjects or from the arts and humanities or computer science).
- ~~The Minimum Admissions Standards for 4-year Massachusetts Public State College and Universities requires 4 years of Math and 3 Lab Science courses in addition to the other courses listed.~~

The minimum GPA for any Massachusetts State College or University is 3.0.

- For those candidates who do not meet the minimum GPA, a sliding scale consisting of the GPA and SAT I scores can be used. Some students who do not meet minimum requirements may be accepted under a special admissions program. However, no applicant with a recalculated high school GPA below 2.0 may be admitted to a four-year state college or university. Attainment of minimum admission requirements does not guarantee acceptance. Students should consult with guidance for more detailed information.

NCAA Requirements

Any student who plans to participate in college athletics is advised to see their Guidance Counselor at the end of their sophomore year for specific NCAA requirements.

Specialized Academic Programs

Special Education

Hanover High School provides special education services to students in accordance with the Individuals with Disabilities Education Act (IDEA) and the Massachusetts General Law Chapter 766. Special education is intended to provide services to students with disabilities requiring specially designed instruction in order to make progress in general education curriculum. A variety of services including academic support, reading, speech and language, physical therapy, occupational therapy, adaptive physical education, career and college transition planning, and vocational training are provided. Services are provided to students in the least restrictive environment as determined by the Team. Specific questions regarding special education should be directed to the school's Special Education Coordinator.

Academic Strategies

Students are eligible for Academic Strategies only if specially designed instruction outside of the general education classroom is identified as part of an Individual Education Plan (IEP). Academic Strategies supports students by developing specially designed curriculum to enable students to make effective progress and access the general education curriculum. Students in Academic Strategies work toward the individual goals and objectives of their IEP as determined by the Team. ~~These goals might include opportunities for students to practice and develop a variety of necessary and practical social skills. Goals addressed in Academic Strategies may also include transition skills related to post-graduation. A transition goal would include learning to develop the skills necessary to successfully navigate the college or career experience. Topics might include teaching self-advocacy skills, conflict resolution, working collaboratively with others, time management, study skills, managing finances, networking and living independently.~~ Depending on their IEPs students may earn 2.5 or 5.0 credits per year in Academic Strategies.

Independent Study

Independent Study provides an opportunity for the more advanced, responsible student to work on a project of his/her choice with a teacher-advisor outside of the regular classroom setting. A student must develop a project proposal and present it to a faculty member who would volunteer to act as an advisor. The student will be graded each marking term on the basis of demonstrated achievement and effort. A student may earn up to five (5) credits per year. The privilege of developing and implementing an independent study program will depend on the availability of teacher supervision and time. Independent Study courses will not count toward a student's GPA and Class Rank calculations as they are not leveled. All requests for Independent Studies must go to the appropriate director for review and receive final approval from the principal.

Virtual High School

Students may earn up to 2.5 credits per semester or up to 5 credits per year in this innovative and challenging program. Hanover High School students will have the opportunity to enroll in unique courses not traditionally available at Hanover High School, such as Pre-Veterinary Medicine or Entrepreneurship or Screenwriting. Virtual High School classes take place entirely over the Internet. Students may choose from a full catalog of semester length courses, including honors, college, and standard courses. Year-long Advanced Placement courses are also available. Students will not be able to enroll in any Virtual High School course that is currently being taught at Hanover High School without the written permission of the principal. VHS students gain essential 21st century learning skills, such as information and media literacy practice, online collaboration, communication, and team-building. The structure of VHS courses requires productivity, initiative, and self-direction from students who will be entirely accountable and responsible for their own learning. Class sizes are limited to 25, and there is an emphasis on interaction between teachers and students. Activities are student-centered and discussion and group activities are a part of each VHS course. Students will be scheduled to report to either the Library or the Engineering Design room to attend their VHS class. Students will be chosen on a first come first served basis with preference given to seniors, juniors, sophomores, and finally freshman in that order. VHS classes are offered in a scheduled asynchronous mode. This means that classes follow a semester schedule and assignments are due at specified weekly intervals. However, students can complete their work at anytime during the week, as long as work is posted by specified due dates. Site coordinator Mrs. McHugh will be available throughout the year for technical assistance, distribution of class materials, and biweekly progress reports which will be sent home. The VHS course will count toward a student's GPA and Class Rank if the student is taking the course as part of their seven period day. VHS courses taken as an extra course beyond the seven period day will not count toward the student's GPA and Class Rank. All VHS courses count toward partial fulfillment of the graduation requirements described on page 16. Please logon to VHS online at: www.govhs.org to see the course offerings. For further information, please see your guidance counselor and request a registration form.

HHS CONNECT



Hanover High School Connect (HHS Connect) is the result of a collective effort on the part of the faculty, the administration, and the community to provide students greater choice and greater voice in their educational journeys. Our vision is to provide even more opportunities for students to increase engagement and to demonstrate their learning in ways that are relevant to their interests and futures.

To this end, we have created four “personalized pathways” among which students may choose one or more of these innovative concentrations to follow as they prepare themselves for both college and career pursuits. Within each of these pathways, students engage in courses founded on the essential skills of communication and literacy, problem solving, collaboration and the effective use of technology. Relevant educational opportunities provide further civic and social opportunities and personalized community engagement. Our students’ education is as much outside of the classroom as it is inside the classroom.

Our Innovative Pathways are as follows:

- Fine and Performing Arts
- Engineering and Technology
- Health and Human Services
- Business and Entrepreneurship

FINE AND PERFORMING ARTS COURSES

Music:

Concert Chorus

VOX

Symphonic Band

Jazz Ensemble

Class Piano I

Class Piano II

Class Piano III

AP Music Theory

Songwriting, Recording, & Music Production

Music in Film & Multimedia

Partnership in Music

** History of Western Music*

Jazz Lab

** Arranging, Orchestration & Composition*

Art:

Ceramics & Sculpture I

Ceramics & Sculpture II

Ceramics & Sculpture III

AP 3-D Design

Partnership in Art

Intro to Drawing

Intro to Painting

Drawing I

Drawing II

Painting I

Painting II

Honors Drawing

AP Studio Art Drawing

Drama:

Intro to Drama

Honors Drama

Technology:

Digital Media

Video Production

Game Design & 3D Graphic Design

Social Studies:

** World History Through Art*

History Through Film

Virtual High School Courses:

American Popular Music

AP Art History

Art History

Art History: Art of the Caribbean Islands

Creating Art History

Digital Photography

Music Listening & Critique

Music Fundamentals of Composition

Summer Offerings:

South Shore Conservatory Summer Music

Festival

Summer Youth Music School (SYMS)

Drum Major Academy

Internships:

School-To-Work:

ENGINEERING AND TECHNOLOGY COURSES

Math:

AP Calculus

Calculus

AP Computer Science Principles

AP Computer Science A Java

Computer Science 1—1

Computer Science 2—1

Physics 2 - AP

Physics 1 - AP

Physics - H

Physics 1—1

Engineering:

Engineering 1—1

Engineering 2—1

Engineering 3—1

Engineering 4—1

Engineering 4 - H

Game Design—1

Robotics—1

Video Production I - H

Digital Media—1

Pending course modification

Drama 1—1

~~Drama—2~~

Drama 2 - H

School to Work EOD—2

School to Work—2

~~School to Work 67—2~~

Internship 1—1

~~Internship 1a—1~~

Internship 2—1

~~Internship 2a—1~~

Songwriting, Recording, and Music

Production—1

Virtual High School Courses:

Biotechnology

CAD

Creative Programming with Scratch

Cryptography: The Math Behind Secret Messages

Summer Offering

Engineering for Sustainable Energy

Engineering PrinciplesJava Fundamentals for
Science and Engineering

Java Programming

Math and Modern Logic*

Mathematics of Electricity*

Mission to International Space Station Summer
Offering

Programming in Visual Basic

Science from Space*

Solar Energy Design Summer Offering*

Video Game Design*

Web Design

* Requires further investigation

In-Class Projects

- Video yearbook (VYB)
- Senior lip dub
- Independent engineering projects beyond the
scope of the “normal” course work
- Independent humanities projects (pending
approval by administration)

HEALTH AND HUMAN SERVICES COURSES

English:

AP English 11

English 11

Intro to Public Speaking

Broadcast Journalism

Humanities

Social Studies:

AP Govt and Politics

AP Psych

Cedar School Aid

Life Skills Student Aid

Developmental Psych

Psych/Soc

Global Studies

Sports & Society

Science:

Computer Science 11

AP Biology

AP Chemistry

Anatomy and Physiology

Environmental Science

Marine Biology

Forensics

Foreign Language:

French 4 Honors

French 5/AP

Spanish 4 Honors

Spanish 5/AP

PE/Wellness:

Lifetime Fitness

Team Sports and Cooperation

Survival 101

Strength and Conditioning

Internship

School to Work

Partnership in Art/Music/Phys. Ed

Virtual High School Courses:

Human Geography

BioChemistry

BioEthics

BioTechnology

Climate Science

Constitutional Law

Criminology

Epidemics

Evolution and the Nature of Science

Genes and Disease

Health

KIndergarten Apprentice Teacher

The Teenage Brain

Peacemaking

Practical Law

Psychology of Crime

US Government

World Conflict: A United Nations

Introduction

World Religions

Your Brain: An Introduction to

Neuroscience

BUSINESS AND ENTREPRENEURSHIP COURSES

Courses Offered:

Accounting 1
Accounting 2
Algebra 3
Broadcast Journalism
Business Communications
Digital Media
Global Studies
Internship 1
Internship 2
Marketing & Management
Probability & Statistics
School-to-Work

Virtual High School Courses:

AP Economics
Business & Personal Law
International Business
Economics
Entrepreneurship
Investing in the Stock Market
Marketing & the Internet
Personal Finance

Internships

Humanities:

- Student-Directed Capstone Project

Traditional Pathways for English

Grade 9	Grade 10	Grade 11	Grade 12
		English 11-AP	English 12-AP
English 9-H	English 10-H	English 11-H	
English 9-1	English 10-1	English 11-1	Senior Humanities Seminar
English 9-2	English 10-2		
Poetry Workshop*	Poetry Workshop*	Poetry Workshop*	Poetry Workshop*
Introduction to Public Speaking*	Introduction to Public Speaking*	Introduction to Public Speaking*	Introduction to Public Speaking*
Drama 1-1**	Drama 1-1**	Drama 1-1**	Drama 1-1**
	Drama 2-1**	Drama 2-1**	Drama 2-1**
	Drama 2-H**	Drama 2-H**	Drama 2-H**
Broadcast Journalism*	Broadcast Journalism*	Broadcast Journalism*	Broadcast Journalism*

* Indicates a 2.5 credit every other day course

**Drama 1 and 2 may be taken every other day for 2.5 credits or every day for 5 credits.

ENGLISH

English courses develop students' reading, writing, speaking, listening, and thinking skills and provide students with an understanding of literary works of merit. In alignment with Common Core State Standards in literacy, the curriculum focuses extensively on informative/explanatory writing, narrative compositions, and the development of spoken and written arguments. Reading is deliberately addressed in terms of the close reading of literature and informational/non-fiction texts. In English courses, students, as both readers and writers, develop a greater awareness of the magic and power of words; learn to use critical thinking skills to challenge unexamined assumptions; employ a variety of media for effective communication; and develop an awareness of the way literature mirrors various aspects of the human condition. Skills such as critical thinking, collaboration, public speaking, global awareness, creativity, self-direction, interpersonal awareness, and technology are encouraged and stressed in all English courses.

111 ENGLISH 9 - Honors

5 credits/year

Ninth grade Honors English focuses on writing that includes the informal and critical essay. In addition, students expand their critical writing skills by including the use of references from outside sources—both on-line and textual. Consequently, the students are expected to attain a higher degree of mastery in essay writing. Students are introduced to world literature through a variety of genres: novels, plays, epic poetry, short stories, etc. The literature is used as a basis for sharpening critical and analytical skills. Some of the works read are the following: *Romeo and Juliet*, *Animal Farm*, *Our Town*, *Great Expectations*, *The Odyssey* and *Les Miserables*. In addition, the students are given vocabulary words that are added to a cumulative list. Students work on independent projects (the creation of tests, the teaching of chapters or skills, power point presentations, etc.), are assigned independent reading, and work on oral interpretation and informative speeches.

112 ENGLISH 9 - 1

5 credits/year

In this course, students practice writing in order to develop concise sentences and paragraphs leading to the composition of the informative essay. Grammar is studied in order to give students the tools needed to write well. The students read selected literature designed to promote improvement in comprehension skills and vocabulary, and to understand the figures of speech. Students read novels, poems, plays, and short stories. Students read such works as *Romeo and Juliet*, *Animal Farm*, *Our Town*, *Great Expectations*, and *The Odyssey*. These works require the student to read with a greater depth of understanding. Weekly cumulative vocabulary is required. The students prepare an informative speech, read a book of their choosing each quarter, and work in groups to create literature-based projects. [A co-taught section of this course is available.](#)

113 ENGLISH 9 - 2

5 credits/year

~~In this course, students practice writing in order to develop and to reinforce the necessary skills to create effective expository paragraphs. Emphasis is placed on the study of grammar, punctuation, and syntax. The students read selected literature chosen to promote improvement in comprehension skills and to increase vocabulary. Poetry, drama, the short story, and the novel are included. Works such as *Romeo and Juliet*, *Animal Farm*, *Our Town*, *West Side Story* and *The Old Man and the Sea*, are read. Weekly cumulative vocabulary is required. The students must prepare and present an informative speech. Reading and writing skills are emphasized.~~

NOTE: Students will participate in a freshmen seminar curriculum run by the guidance department during their ninth-grade English classes. The object of this seminar is to help students develop skills necessary to achieve future goals. Once a month, counselors will provide instruction on a variety of topics that may include: Developing Positive Relationships, Mindfulness and the Grace Trail, Coping with Anxiety, Goal Setting, Career Research, Social Media Addiction, and Developing Empathy.

121 ENGLISH 10 - Honors

5 credit/year

This course examines a variety of literary works chosen because they have a wide acceptance and belong to a common body of literature with which most educated people are familiar. Many of these materials are intellectually demanding and, consequently, promote improvements in reading comprehension skills and improved vocabulary. William Shakespeare's *Julius Caesar*, Charles Dickens's *A Tale of Two Cities*, William Golding's *Lord of the Flies*, Elie Wiesel's *Night*, and Edith Wharton's *Ethan Frome*, as well as other significant works, are studied. The genres of the short story, poetry, and nonfiction are also included as study units. Major literary terms, prefixes, stems, suffixes, and a cumulative vocabulary list are components of the course. Students are required to learn and to present orally a poem or a passage from literary materials during each of the terms, as well as to prepare and to present an informative or persuasive speech. Students are also encouraged to write, direct, and act in their own dramatic creations. Writing expository papers is required with frequent assignments of varying length. Critical and persuasive papers are assigned that include documenting techniques that include online and textual sources. Grammar and usage units are reviewed and studied during the year. Independent reading assignments are required. Students are often called upon to work in groups to create and to explore various literary avenues.

122 ENGLISH 10 —1

5 credits/year

In this course, literature is selected to further the student's introduction to and information about world literature. This literature is selected to promote improvement in comprehension skills and to increase vocabulary. Student read several classics such as *Lord of the Flies*, *To Kill a Mockingbird* and Elie Wiesel's *Night*. Short story, essay, drama, non-fiction, and poetry units are also presented. Literary terms and themes are studied. Grammar is reviewed as a necessary tool for improving the writing process. Weekly cumulative vocabulary is required. The students concentrate on the development and reinforcement of the necessary skills to create effective expository, descriptive, persuasive and narrative essays. To further sharpen their composition skills, students are taught how to write a précis. Students also engage in group projects of a literary or creative venture (These projects often include the use of the internet), give oral presentations, and render dramatic monologues. [A co-taught section of this course is available.](#)

123 ENGLISH 10 —2

5 credits/year

~~In this course, students practice writing in order to develop and to reinforce the necessary skills to create effective expository paragraphs. Emphasis is placed on the study of grammar, punctuation, and syntax. The students read selected literature chosen to promote improvement in comprehension skills and to increase vocabulary. Poetry, drama, the short story, and the novel are included. Works such as *Lord of the Flies*, *To Kill a Mockingbird* and Elie Wiesel's *Night* are read. Weekly cumulative vocabulary is required. The students must prepare and present an argumentative speech. Reading and writing skills are emphasized.~~

130 ENGLISH 11 – Advanced Placement

5 credits/year

This *yearlong* college course is designed to prepare students for the AP Language and Composition exam given in May of each year. While engaging in the study of rhetoric, this course will focus primarily on the reading and writing of non-fiction (though students will fulfill fiction requirements through independent reading assignments). Through close readings of non-fiction texts, students will develop a keener sense of the methods and rhetorical strategies at work in successful writing. Throughout the year, students will read a variety of essays from a range of historical contexts. Furthermore, students will immerse themselves in the process of writing as they try their hands at personal narrative, argument, and analysis essays. Extensive reading and writing are expected from students throughout the course. Moreover, students are expected to carry a vigorous summer workload. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

131 ENGLISH 11 - Honors

5 credits/year

Honors English stresses the chronological, as well as thematic, study of American literature. All genres are included. An understanding of Puritanism through the writing of Edwards, Taylor and Bradstreet is stressed, as are the Romantic and Transcendental movements through the writing of Poe, Bryant, Emerson, and Thoreau. The writings of these 18th and 19th century writers are linked to the thinking and writing of 20th and 21st century writers in order to emphasize thematic and archetypal relevance. These readings also serve as a background for the in-depth study of *The Scarlet Letter*, *Huckleberry Finn*, *The Great Gatsby*, and *The Catcher in the Rye*. The essays and sermons of the Puritans, the speeches of our founding fathers and those of Lincoln and Douglas lead naturally into the unrest as seen in the writing of Faulkner, Baldwin, and King. Critical and expository essays ranging from five paragraphs to the formal paper are required. Some assignments include the use of supportive quotations and paraphrased passages from texts under study; others demand the use of outside sources—both tactile text and online sources, and these online sources are often accessed via web searches and the literary website JSTOR. The final paper must contain both. Students also sharpen their composition skills by learning to write a précis. Students may also be introduced to a class website that facilitates online class participation. Additionally, students gather in groups to discuss, debate, come to a consensus, and report out on various literary challenges. Practice is given to the college application essay. Cumulative vocabulary is required.

132 ENGLISH 11—4

5 credits/year

This course surveys American literature. Puritanism and the Romantic/Transcendental movements are explored. Students read novels such as *The Scarlet Letter*, *The Grapes of Wrath*, and *The Catcher in the Rye*. Lessons learned from classic American literature will assist students in gaining greater understanding of themselves and the world around them. Students often respond via the class website to discuss literary texts and to comment on the comments of their classmates. Independent reading is assigned each term. Expository writing - an ongoing process - is stressed with a review of accepted usage and sentence structure. Writing assignments range from the personal essay to the critical analysis of a literary work under study, to practice in writing essays for college applications. Moreover, students sharpen their composition skills by learning to write the précis. Student writing is often assessed and critiqued on a smart board. Students often engage in group work to collectively think about and to solve thorny literary conundrums.

TBA ENGLISH 11: A READER'S JOURNEY

———5.0

credits/year

This course is designed for students who want to develop as readers, whether they are avid readers who already know their reading preferences or reluctant readers looking to discover their identities as readers. This course allows students to develop an individualized reading plan to address their reading strengths and weaknesses as well as their interests. They will use these texts to hone their critical reading skills. All students' reading lists will include both fiction and nonfiction texts that span a variety of cultures, time periods, and genres, in addition to connecting to their other classes and chosen pathways. Students will be able to earn credits within their pathways by working with the teacher to create a reading plan that includes relevant texts by completing assignments based on those texts. Over the course of the year, students will read essays, poetry, and short stories, will participate in conferences with the teacher, facilitate class discussion, participate in reading circles, and write expository, narrative, and persuasive essays. Students will keep a reading journal throughout the year and give a multimedia final presentation at the end of the year. This course is open to students in grade 11. It can also be taken as a college prep or an honors class.

140 ENGLISH 12 - Advanced Placement

5 credits/year

This yearlong college course is designed to prepare students for the AP English Literature and Composition exam given in May of each year. Students selecting this elective are presumed to have developed solid skills,

are highly motivated, thoroughly enjoy reading great literature, cannot wait to discuss that literature, and look forward to both written and oral analysis. Students also work in groups to edit plays, find thematic links that run through various literary texts, and work to explicate complicated poems. Students not only read poetry; they create their own and read it aloud. When students engage in critical research papers, they rely both on the tactile text and on Internet sites such as JSTOR. Requirements: Summer reading.

153 SENIOR HUMANITIES SEMINAR ~~12~~ **1** 5 credits/year

A bridge between high school and undergraduate/career pursuits, the Senior Humanities Seminar offers students an opportunity to refine and to evidence essential skills, knowledge, and literacies associated with either academic, communal, career, and/or personal interests as they relate to the innovations of the 21st century. While grounded in the fundamental skills of reading, writing, and effective communication, the course advances students through core studies and 21st century themes into an array of potential real-world applications. As the course is offered through the Humanities, students can expect to engage various world literatures and film, explore modern social, civic, and political movements, and investigate the nuances of journalism in terms of information, media, and technology. In step with these skills and subjects, students are encouraged to explore their own future goals and career pathways. These personalized efforts culminate in the development of a project that is planned, prepared, and presented in close association with teacher and community involvement. As offered through the English department, ~~the SENIOR HUMANITIES SEMINAR 12~~ **this class** contains the essential skills and content of previous senior electives. It is a requirement for any twelfth grade student not enrolled in Senior AP English Literature and Composition; however, students enrolled in AP English have the opportunity to take the course as well, and can register the class for social studies credits. Likewise, any student enrolled in a social studies Advanced Placement course hoping to take the class may register the course for English credits.

ENGLISH ELECTIVES

161 INTRODUCTION TO PUBLIC SPEAKING 2.5 credits/every other day

Open to all students in grades 9-12, students will make oral presentations that demonstrate appropriate consideration of audience, purpose, and the information to be conveyed. Public speaking students will learn techniques for succeeding at college and job interviews, class presentations, and a variety of formal and informal speaking situations. Classroom activities will include preparing and delivering instructional and persuasive speeches, debates, speeches of introduction, and more. Students will learn the process of speaking, from first draft to the final product, and leave the course with the skills they need to speak in public with confidence and polish.

173 DRAMA 1 ~~1~~ **or DRAMA 2** ~~1~~ **5**
credits/year or

2.5 credits/every other day

Open to all students in grades 9-12, this course is designed for students interested in learning how to perform in theater and film. Students will develop acting skills through improvisation, scene work, theatre exercises, and group play building. Students will be required to memorize and perform both monologues and group scenes. Students will also learn the essential mechanics of script development through improvisational material, group writing, and analysis of proven works.

183 DRAMA 2 - H ~~(Prerequisite: Audition)~~ 2.5
credits/every other day

In Honors Drama, students will explore advanced techniques in acting, directing, lighting, and scenic design. Emphasis will be on reading and written work, including essays, plays, and theory. This course may require participation in outside events, such as the METG state drama festival, dates for which will be given in the fall.

168 POETRY WORKSHOP

2.5 credits/every other day

Open to all students in grades 9-12, students will read, write and recite poetry. Students will study and try different poetic genres, such as the haiku, the sonnet, and free verse. The students will also help to develop a poetry magazine for school-wide distribution. By the end of the course, the students will have written enough poems to compile their own chap-book and may submit the chap-book for possible publication.

172 BROADCAST JOURNALISM

2.5 credits/every other day

Students enrolled in Broadcast Journalism will gain first-hand experience in the functional and creative aspects of television production. Working both behind the scenes and on camera, in the studio and on location, students will be trained in pre-production planning, camera, studio set-up, lighting, filming, editing, and storage of footage. They will learn how to write and deliver the newscast, interviews, public service announcements, sportscasts, editorials, and the live report. Students will learn journalistic principles as the foundation of their news-gathering procedure, establishing the proper channels of how to tell a story. They will be taught to understand their immediate surroundings and begin to understand the narratives that lie among them. This course is open to all students.
~~Students enrolled in Broadcast Journalism will gain first-hand experience in the functional and creative aspects of television production. Working both behind the scenes and on camera, in the studio and on location, students will be trained in pre-production planning, camera and teleprompter use, studio set-up and seating, lighting, filming, editing, and storage of footage. They will learn how to write and deliver the newscast, interviews, public service announcements, sportscasts, editorials, and the live report. Co-taught by Hanover Community Access Television staff, the course allows students to participate in bringing their news and interests to viewers in and beyond the Hanover public schools. This course is open to all grade levels and emphasizes students' learning expectations regarding speaking, reading, writing, collaboration, and civic responsibility.~~

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Traditional Pathways for History and Social Studies

Grade 9	Grade 10	Grade 11	Grade 12
	US History 2-AP	World History- AP	Senior Humanities Seminar
US History 1-H	US History 2-H	World History-H	US Government & Politics-AP
US History 1-1	US History 2-1	World History-1	Psychology-AP
US History 1-2		US Government & Politics-AP	Psychology/Sociology-1
		Psychology-AP	19th and 20 th Century American History - 1
		Cedar School Student-Aid	Global Studies-1
		Life Skills Student-Aide	Sports and Society-1
		Developmental Psychology	CS Student-Aide Program
			Life Skills Student-Aide
			Developmental Psychology

HISTORY AND SOCIAL STUDIES

All Social Studies courses incorporate the learning standards of the Massachusetts Curriculum Frameworks developed by the Massachusetts Department of Elementary and Secondary Education and meet the high expectations stated in the Hanover High School Core Values and Beliefs Statement. Students must complete 15 credits in Social Studies. All freshmen take US History 1 and sophomores take US History 2. All juniors take World History. Students have the opportunity to take four AP courses in Social Studies, beginning with US History in their sophomore year. Seniors continue to have their elective choices. Students who are enrolled in AP English Literature may take Senior Humanities Seminar 12 to count toward senior Social Studies.

211 UNITED STATES HISTORY 1 - Honors

5 credits/year

This course covers the Colonial era through the end of the Reconstruction era. It is designed for students who have consistently demonstrated strong academic ability and the motivation to work independently. The pace of this course is rapid. Students will be presented with an intellectual foundation of the nation's political, social and economic institutions. Additionally, students will read, analyze and communicate orally and in writing about primary source documents. These readings and other assignments serve as a means to assist students in developing critical thinking and problem solving skills so that they can thrive in a 21st century global society.

212 UNITED STATES HISTORY 1—1

5 credits/year

This is an academically rigorous course designed to present a comprehensive survey of American History from the Colonial era through the Reconstruction era. The development and appreciation of American political, social and economic institutions is emphasized. Students will utilize appropriate research, communication and collaboration skills to assess the United States' participation in a global society. Primary source material is commonly used for analysis and evaluation. A co-taught section of this course is available.

~~**213 UNITED STATES HISTORY 1 - 2**~~

~~5 credits/year~~

~~This course is designed to present a survey of American History from the Colonial era through the Reconstruction era. Students will study the development of the many principles upon which the United States bases its political and economic systems and cultural lifestyle through vocabulary, written work assignments, research and maps.~~

220 UNITED STATES HISTORY 2 - Advanced Placement

5 credits/year

Advanced Placement United States History is an intensive study of American History from the Colonial period to the present. It is a demanding program that allows students the opportunity to pursue college-level studies while still in high school, and in this case, as early as sophomore year. The course requires students to do a great amount of outside work. Weekly primary and secondary source reading will be required. Students will be required to write weekly essays. Students as well as parents/guardians are asked to make a strong commitment to the course and accept greater responsibility for their education. Prerequisite for this course is an extensive summer reading requirement. In addition, any student who enrolls in an AP course is required to take the AP exam in May of the school year.

221 UNITED STATES HISTORY 2 - Honors

5 credits/year

This course covers the Industrial Revolution in America to the present. It is an academically rigorous course designed for students who have demonstrated consistently strong academic ability in writing and research as well as those students motivated towards independent learning. The pace of this course is rapid and will follow much of the AP curriculum. Students will be presented with an in-depth coverage of social, economic and political concepts. The role of the United States in global affairs will be a major aspect of this course. Primary source material is commonly used and students are expected to make extensive use of critical reading and

writing skills. A research paper is required.

222 UNITED STATES HISTORY 2 —1

5 credits/year

This course is designed to present an academically demanding, comprehensive survey of United States history from the Industrial Revolution to the present. It continues to build on the development of the nation's major institutions and the global role of the United States in the twentieth century. There is a great deal of writing required in this course and a research paper using proper research tools is required.

153 SENIOR HUMANITIES SEMINAR 12 —1

5 credits/year

A bridge between high school and undergraduate/career pursuits, the Senior Humanities Seminar offers students an opportunity to refine and to evidence essential skills, knowledge, and literacies associated with either academic, communal, career, and/or personal interests as they relate to the innovations of the 21st century. While grounded in the fundamental skills of reading, writing, and effective communication, the course advances students through core studies and 21st century themes into an array of potential real-world applications. As the course is offered through the Humanities, students can expect to engage various world literatures and film, explore modern social, civic, and political movements, and investigate the nuances of journalism in terms of information, media, and technology. In step with these skills and subjects, students are encouraged to explore their own future goals and career pathways. These personalized efforts culminate in the development of a project that is planned, prepared, and presented in close association with teacher and community involvement. As offered through the English department, the SENIOR HUMANITIES SEMINAR 12 contains the essential skills and content of previous senior electives. It is a requirement for any twelfth grade student not enrolled in Senior AP English Literature and Composition; however, students enrolled in AP English have the opportunity to take the course as well, and can register the class for social studies credits. Likewise, any student enrolled in a social studies Advanced Placement course hoping to take the class may register the course for English credits.

200 WORLD HISTORY - Advanced Placement

5 credits/year

This is a rigorous, college-level course designed to explore human history from 8000 B.C.E. to the present. The course of study will emphasize the development of analytical and writing skills necessary for success on a collegiate level. To this end, the course devotes considerable time to the critical evaluation of primary and secondary sources, analysis of historiography (The principles, theories, or methodology of scholarly historical research and presentation) and inquiry into global connections that have shaped our present world. A special emphasis will be given to preparation for the National AP Exam, including historical writing through comparative, document-based questions (DBQ), and continuity change over time (CCOT) essays as well as objective evaluations.

201 WORLD HISTORY – Honors

5 credits/year

World History Honors is designed to allow students to practice and utilize analytic skills and factual knowledge necessary to deal critically with the problems presented in a 21st Century global society. This course is designed for students who have a high level of interest in history and excellent reading, writing and analytic skills and who have demonstrated a capability of working independently. Primary source documents will be used as a means of gathering and communicating historical relevance. Additionally, students will be presented and expected to engage with comprehensive material pertaining to European, Latin American, Asian, and African political, economic, and religious histories.

202 WORLD HISTORY —1

5 credits/year

World History 1 is designed to allow students to practice analytic skills and factual knowledge necessary to deal critically with the problems presented in a 21st Century global society. This course is an academically rigorous course designed to present a comprehensive survey of European, Latin American, Asian, and African political,

economic, and religious histories. Primary source material is commonly used as means for analysis, synthesis and evaluation.

TBD MODERN WORLD HISTORY

—————**5 credits/year**

This class explores the modern history of the world from 1750 on, emphasizing the role of all regions in world history, discussing major thematic changes in world history, and focusing on core historical thinking skills. This course is open to students in grade 11.

TBD WORLD HISTORY THROUGH ART

5 credits/year

This course will explore the major time periods of world history, including the ancient world, global trade and exploration, nationalism, imperialism, world wars, decolonization, and contemporary times through the arts, including painting, sculpture, architecture, photography, and other artistic media. Students will understand how geography, politics, religion, and economics have affected the development of art. Students will identify and describe famous pieces of art in the context of world history. This course is open to students in grade 11.

HISTORY AND SOCIAL STUDIES ELECTIVES GRADES 11-12

230 ~~U.S. NITED STATES~~ GOVERNMENT AND POLITICS – Advanced Placement

5 credits/year

~~POLITICS – Advanced Placement~~

This course explores the political theory and everyday practice that direct the daily operation of our government and public policies. It is a demanding program that allows the student the opportunity to pursue college-level studies while still in high school. The course is for all intents and purposes taught on a college level and it requires a substantial amount of reading and preparation for every class. —The objectives of this course go beyond a basic analysis of how United States government “works.” —Students will develop a critical understanding of the strengths and weaknesses of the American political system, as well as their rights and responsibilities as citizens. Additionally students will complete a summer work requirement. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

250 PSYCHOLOGY - Advanced Placement 5 credits/year

This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. Topics include but are not limited to history of psychology, research methods, biological bases of behavior, sensation and perception, states of consciousness, learning, cognition, motivation and emotion, developmental psychology, personality, testing and individual differences, abnormal psychology, psychological disorders and social psychology. Additionally, there is an extensive reading and writing summer requirement. Students willing to accept the challenge of a rigorous college curriculum should consider enrolling in the course. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

925 CEDAR SCHOOL STUDENT-AIDE PROGRAM 2.5 credits/year

The Cedar School Student-Aide Program provides an opportunity for students to partner with elementary school teachers and students in order to provide a mutually valuable learning experience for all involved. As a member of the Cedar School Student-Aide Program, student aides will travel to Cedar School at the designated time and may serve in one or more of the following capacities: mentor, one-on-one or small group tutor, teacher assistant. Student aides typically work with the same teacher, class, and/or student(s) to establish a consistent partnership. This course is graded as Pass/Fail and satisfies the one-year community service requirement for Hanover High School students.

926 LIFE SKILLS STUDENT-AIDE PROGRAM 2.5 credits/year

The Life Skills Student-Aide Program provides an opportunity for students to partner with Hanover High School special education teachers and students in our Life Skills programs in order to provide a mutually valuable learning experience for all involved. Student aides will work with students in our Life Skills program during a scheduled time in the school day, and may serve in one or more of the following capacities: mentor, one-on-one or small group tutor, teacher assistant. Student aides will typically work with the same teacher, class, and/or student(s) to establish a consistent partnership. This course is graded as Pass/Fail and satisfies the one-year community service requirement for Hanover High School students. A letter of intent and teacher recommendation is required.

248 DEVELOPMENTAL PSYCHOLOGY—1 5 credits/year

Motivation, emotion, phobias - oh my!!! This course is a study of human growth and development. Emphasis is on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. In this course students engage with the best content psychology has to

offer. Each term will delve into a different, fascinating unit of study. Topics include but are not limited to human and personality development, psychological disorders, social psychology and how the brain impacts our behavior. The course will use projects, writing, reading, and discussions to deliver and assess content and skills needed in today's competitive and dynamic global society. Students will meet online and in a face-to-face format. Concentrating on the 4 Cs - Communication, Collaboration, Creative Problem Solving and Critical Thinking Skills - students will apply content to a variety of project assessments.

HISTORY and SOCIAL STUDIES ELECTIVES GRADE 12 ONLY

272 19th and 20th CENTURY AMERICAN HISTORY—1 5 credits/year

Using a thematic approach, this academic course will explore historical events and specific time periods as depicted through film as well as primary and secondary sources. Students will be required to make extensive use of their writing and communication skills. Films will be critiqued for historical accuracy and biases. This course will also focus on international topics that have had an impact on American culture, foreign policy and the role of the United States in world affairs. Books such as *The Grapes of Wrath*, *All Quiet on the Western Front*, or *The Right Stuff* will be assigned for summer reading and the test will given in the fall.

249 PSYCHOLOGY/SOCIOLOGY—1 5 credits/year

This course is an introduction to the study of human behavior and is structured to both life-oriented and science-oriented psychology. Attention is given to the nature of the discipline, human maturation and development, learning and thinking, motivation and emotion, sensation and perception, and individual differences. This course also studies the relationship between the individual and society. Topics will include the study of culture, socialization, group membership, status, roles, race relations, and the major American institutions: the family, religion, government, and economic institutions.

259 SPORTS AND SOCIETY—1 5 credits/year

This course will focus on the role and impact of sports in United States society. Topics will include philosophy of youth and high school sports, role of parents and coaches, high school and college sports, Title IX, media influences, college graduation rates of scholarship athletics, globalization of professional sports, and current events.

261 GLOBAL STUDIES—1 5 credits/year

This is a rigorous, college-level course in which students will examine, the individual's role in the global society and the events that shape our changing world. Topics and themes include food and population, war, the spread of disease, human rights, sustainable development, empowerment of women, poverty, ecological degradation, and migration. Utilizing case studies, assigned nonfiction readings, and research, students will examine the root causes, effects, multiple perspectives as well as attempts to resolve international conflicts by developing critical reviews, comparative analysis, and argumentative essays and presentations.

TBD LEADERSHIP 5 credits/year

This course is designed to help students discover and develop their leadership skills. The course offers all students the opportunity to examine their own personality through the study of the Enneagram in order to translate their own native abilities into leadership qualities. Through research, class discussion, journal writing, group presentations and movie character analysis, students will explore various qualities that make up good leadership and learn how to incorporate them into their own leadership skill set.

Traditional Pathways in Mathematics

Grade 9	Grade 10	Grade 11	Grade 12
Geometry H	Algebra 2-H	Precalculus-H	Calculus AP or Calculus H
Geometry 1	Algebra 2-1	Precalculus-1	Calculus AP or Probability and Statistics 1
Algebra 1-1	Geometry 1	Algebra 2-1	Precalculus 1 or Probability and Statistics 1
Algebra 1-2	Geometry 1-2	Algebra 2-2	Algebra 3-2 or Probability and Statistics 1
	Algebra 1-2	Geometry 2	Algebra 2-2
Computer Science 1	Computer Science 1	Computer Science 1	Computer Science 1
	Computer Science 2	Computer Science A AP	Computer Science A-AP
		Computer Science AP	Computer Science AP

MATHEMATICS

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important processes and proficiencies with longstanding importance in mathematics education. The first of these are the process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency of adaptive reasoning, strategic competence, conceptual understanding, procedural fluency, and productive disposition.

The Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

Hanover High School adheres to these Mathematical Practice Standards that apply throughout each course, and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

The mathematics department offers a wide range of 5-credit courses to meet the needs of all students. Each student must earn 20 credits in mathematics as well as pass (earn a Competency Determination) on the MCAS Mathematics test in order to graduate. Furthermore, it is strongly recommended that all students take and pass Algebra 2. Accounting may be used as fourth year of mathematics for those students who have completed Algebra 2 at the discretion of the principal. Please note that some math courses have a suggested guideline to assist students in selecting courses that will provide them with the best opportunity to achieve success.

CALCULATOR POLICY

Technology is an essential element in the teaching and learning of high school mathematics. According to the National Council of Teachers of Mathematics, “When technological tools are available, students can focus on decision making, reflection, reasoning, and problem solving.” To that end, Hanover High School students enrolled in Algebra 1, Algebra 2, Pre-calculus, Calculus, or Statistics should purchase a graphing calculator, preferably a TI-83 Plus or TI-84 Plus. *[take-out* Graphing calculators help students visualize and better understand many concepts in mathematics.] It is important for students to gain familiarity with their own calculator in order to use it as a tool during class and for homework. Furthermore, students are expected to use calculators on standardized assessments, including MCAS, PARCC, PSAT, SAT, and AP, as well as college placement exams. Many of the questions on these assessments are designed in such a way that students are expected to use a graphing calculator.

The cost of graphing calculators can present a hardship, therefore there is a very limited number of graphing calculators that can be borrowed on a first come first serve basis. Please contact the office for more information. For students that have a compatible phone or tablet, there are several free graphing calculator apps that can be downloaded from iTunes or Google Play. However, please keep in mind that phones or tablets are not allowed on the MCAS, PARCC, PSAT, SAT, and AP exams. In addition, these devices may not be allowed on some classroom assessments as well.

370 — COMPUTER SCIENCE PRINCIPLES — AP 5 credits/year

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

372 — COMPUTER SCIENCE A — AP 5 credits/year

AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A curriculum is compatible with many CS1 courses in colleges and universities.

375 — COMPUTER SCIENCE 1 - 1 2.5 credits/every other day

Students are introduced to the fundamental concepts of computer science and programming. General computer science topics include data types and variables, input/output procedures, loop structures, string manipulation and modular programming techniques. Although this is an entry-level course in the computer science sequence, a thorough understanding of the mathematical concepts in Algebra 1 is required to master the material. This course is open to students in all grades; however, freshman and sophomores will have priority enrollment.

376 — COMPUTER SCIENCE 2 - 1 2.5 credits/every other day

Students will continue to study fundamental concepts of computer science and programming. Data types, input/output procedures, strings and looping structures will continue to be utilized. New topics include working with algorithms, debugging, and introducing object-oriented programming. A working knowledge of Computer Science 1 and concepts in Algebra 1 are required to master the material.

312 ALGEBRA 1 — 1 5 credits/year

The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the prior grades. The critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. Upon successful completion of this course, students will be able to:

- Interpret the structure of expressions
- Write expressions in equivalent forms to solve problems
- Perform arithmetic operations on polynomials
- Understand the relationship between zeros and factors of polynomials
- Use polynomial identities to solve problems
- Rewrite rational functions

- Create equations that describe numbers or relationships
- Understand solving equations as a process of reasoning and explain the reasoning
- Solve equations and inequalities in one variable
- Solve systems of equations
- Represent and solve equations and inequalities graphically

Guideline: The most successful students have earned a C- or better in Grade 8 Math; a co-taught section of this course is available.

313 — ALGEBRA 1 - 2 5 credits/year

~~The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the prior grades. The critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. Upon successful completion of this course, students will be able to:~~

- ~~▪ Interpret the structure of expressions~~
- ~~▪ Write expressions in equivalent forms to solve problems~~
- ~~▪ Perform arithmetic operations on polynomials~~
- ~~▪ Understand the relationship between zeros and factors of polynomials~~
- ~~▪ Use polynomial identities to solve problems~~
- ~~▪ Create equations that describe numbers or relationships~~
- ~~▪ Understand solving equations as a process of reasoning and explain the reasoning~~
- ~~▪ Solve equations and inequalities in one variable~~
- ~~▪ Represent and solve equations and inequalities graphically~~

~~**Guideline:** The most successful students have successfully passed Grade 8 Math~~

321 GEOMETRY - Honors 5 credits/year

The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. The course is designed for students with a high interest and motivation in mathematics. At times, students are expected to be able to work and study mathematics outside of class. Upon successful completion of this course, students will be able to:

- Experiment with transformations in the plane
- Understand congruence in terms of rigid motions
- Prove geometric theorems
- Make geometric constructions
- Understand similarity in terms of similarity transformations
- Prove theorems involving similarity
- Define trigonometric ratios and solve problems involving right triangles
- Apply trigonometry to general triangles
- Understand and apply theorems about circles
- Find arc lengths and areas of sectors of circles
- Translate between the geometric description and the equation for a conic section
- Use coordinates to prove simple geometric theorems algebraically
- Explain volume formulas and use them to solve problems
- Visualize relationships between two-dimensional and three-dimensional objects
- Apply geometric concepts in modeling situations
- Read Flatland by Edwin Abbot

Guideline: The most successful students have earned an A- or better in Algebra 1-4

322 GEOMETRY—1

5 credits/year

The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Upon successful completion of this course, students will be able to:

- Experiment with transformations in the plane
- Understand congruence in terms of rigid motions
- Prove geometric theorems
- Make geometric constructions
- Understand and apply similarity concepts
- Define trigonometric ratios and solve problems involving right triangles
- Understand and apply theorems about circles
- Find arc lengths and areas of sectors of circles
- Use coordinates to prove simple geometric theorems algebraically
- Explain volume formulas and use them to solve problems
- Visualize relationships between two-dimensional and three-dimensional objects
- Apply geometric concepts in modeling situations

Guideline: The most successful students have earned a C- or better in Algebra 1—1; a co-taught section of this course is available.

~~323 GEOMETRY—2~~

~~5 credits/year~~

~~The fundamental purpose of the course in Geometry is to extend students' geometric experiences. Students explore geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Upon successful completion of this course, students will be able to:~~

- ~~▪ Experiment with transformations in the plane~~
- ~~▪ Understand congruence~~
- ~~▪ Apply geometric theorems~~
- ~~▪ Make geometric constructions~~
- ~~▪ Understand and apply similarity concepts~~
- ~~▪ Solve problems involving right triangles~~
- ~~▪ Understand and apply theorems about circles~~
- ~~▪ Explain volume formulas and use them to solve problems~~
- ~~▪ Visualize relationships between two-dimensional and three-dimensional objects~~
- ~~▪ Apply geometric concepts in modeling situations~~

~~**Guideline:** The most successful students have successfully passed Algebra 1—2~~

331 ALGEBRA 2 - Honors

5 credits/year

Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. A graphing calculator is used extensively throughout the course to organize data in tables and graphs, formulate equations, and make predictions and decisions. Students in this course are expected to produce high quality projects outside of class. Upon successful completion of this course, students will be able to:

- Understand the relationship between zeros and factors of polynomials
- Solve systems of equations

- Represent and solve equations and inequalities graphically
- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations
- Build a function that models a relationship between two quantities
- Build new functions from existing functions
- Construct and compare linear and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model

Guideline: The most successful students have earned a C+ or better in Geometry - Honors

332 ALGEBRA 2—1

5 credits/year

Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. A graphing calculator is used extensively throughout the course to organize data in tables and graphs, formulate equations, and make predictions and decisions. Upon successful completion of this course, students will be able to:

- Understand the relationship between zeros and factors of polynomials
- Solve systems of equations
- Represent and solve equations and inequalities graphically
- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations
- Build a function that models a relationship between two quantities
- Build new functions from existing functions
- Construct and compare linear and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model

Guideline: The most successful students have earned a C- or better in Geometry 1-4; A co-taught section of this course is available.

~~333 ALGEBRA 2—2~~

~~5 credits/year~~

~~Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations and exponential equations. A graphing calculator is suggested. Upon successful completion of this course, students will be able to:~~

- ~~▪ Understand the relationship between zeros and factors of polynomials~~
- ~~▪ Solve systems of equations~~
- ~~▪ Represent and solve equations and inequalities graphically~~
- ~~▪ Understand the concept of a function and use function notation~~
- ~~▪ Build a function that models a relationship between two quantities~~
- ~~▪ Construct and compare linear and exponential models and solve problems~~
- ~~▪ Interpret expressions for functions in terms of the situation they model~~

~~**Guideline:** The most successful students have successfully completed Geometry 1-2~~

334 ALGEBRA 3—2

5 credits/year

This course includes the study of arithmetic topics, problem solving, equations and inequalities, sequence and series, elementary functions and elementary trigonometry. This course is designed to help students develop effective strategies to solve math problems such as the ones on the Accuplacer® test. The course will also include units from the NEFE High School Financial Planning Program. Upon completion of this course, students should be able to:

- Apply various problem-solving strategies
- Solve problems that involve fundamental arithmetic and algebra concepts
- Solve linear equations and quadratic equation by factoring
- Solve systems of equations and inequalities
- Simplify expressions and solve equations using the properties of exponents and radicals
- Gain knowledge of basic trigonometric functions and exponential functions
- Study sequences and series, determinants, permutations and combinations,
- Gain knowledge about sound money management skills
- Develop positive behaviors to attain financial maturity

A co-taught section of this course is available.

Guideline: The most successful students have successfully completion of Algebra 2-2

TBD MATH FOR GENERAL CONTRACTORS

5 credits/year

In this course students will explore topics in geometry, algebra, and trigonometry that play a significant role in today's construction techniques. Students will study a variety of physical applications for high school math while gaining an understanding of construction codes required in the building, plumbing, and electrical trades. Students will be expected to make presentations, interpret design plans, and problem solve. This course is open to students in grades 11 and 12.

341 PRECALCULUS - Honors

5 credits/year

Students who enroll in this course should be familiar with arithmetic, algebra, and geometry. They will build upon their previous mathematical knowledge and experience. The course is designed for students with a high interest and motivation in mathematics. Students need to be able to work and study on their own. The course curriculum is devoted to trigonometry and specific functions, which lead to an introduction of calculus. The graphing calculator is an essential tool in this course. Students who have taken Algebra 2-4 may not be have not covered all of the topics required to be completely prepared for this course; those students must speak with the STEM Director to discuss placement. Upon successful completion of this course, students should be able to:

- Define trigonometric ratios and solve problems involving right triangles
- Apply trigonometry to general triangles
- Find arc lengths and areas of sectors of circles
- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities
- Represent and model with vector quantities
- Perform operations on vectors
- Represent complex numbers and their operations on the complex plane
- Perform operations on matrices and use matrices in applications
- Interpret and understand the twelve fundamental functions and notation, as they arise in application
- Build a function that models a relationship between two quantities and from existing functions
- Construct and compare linear, quadratic, cubic, and exponential models and solve problems

Guideline: The most successful students have earned a B- or better in Algebra 2 - Honors

342 PRECALCULUS—1

5 credits/year

Students who enroll in this course should be familiar with arithmetic, algebra, and geometry. They will build upon their previous mathematical knowledge and experience. The course curriculum is devoted to trigonometry and specific functions, which lead to an introduction of calculus. The graphing calculator is an essential tool in this course. Upon successful completion of this course, students should be able to:

- Define trigonometric ratios and solve problems involving right triangles
- Apply trigonometry to general triangles
- Find arc lengths and areas of sectors of circles
- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities
- Represent and model with vector quantities
- Represent complex numbers and their operations on the complex plane
- Interpret and understand the twelve fundamental functions and notation, as they arise in application
- Construct and compare linear, quadratic, cubic, and exponential models and solve problems

Guidelines: The most successful students have earned a C- or better in Algebra 2—1

350 CALCULUS - Advanced Placement

5 credits/year

Students will cover topics from differential and integral calculus as outlined in the syllabus provided by the College Board. Students will explore topics geometrically, numerically, and algebraically. Students must take the Advanced Placement Exam to receive Advanced Placement credit. The graphing calculator is an essential tool in this course. Any student who enrolls in an AP course is required to take the AP exam. Upon successful completion of this course, students should be able to:

- Differentiate and integrate polynomial, algebraic, trigonometric and transcendental functions
- Apply the theory and techniques of differentiation and integration to analyze and solve complex problems relating to uniform motion, related rates, optimization, curve sketching, areas and volume

Guideline: The most successful students have earned a B- or better in Precalculus - Honors

351 CALCULUS - Honors

5 credits/year

Students will study topics from differential and integral calculus. Students will investigate limits using algebra, graphs, and data tables. In the areas of derivatives and integrals, students will investigate derivatives and integrals geometrically, numerically, and analytically.

Upon successful completion of this course, students should be able to:

- Differentiate and integrate polynomial, algebraic, trigonometric and transcendental functions
- Apply the theory and techniques of differentiation and integration to analyze and solve complex problems relating to uniform motion, related rates, optimization, curve sketching, areas and volume

Guidelines: The most successful students have earned a C+ or better in Precalculus - Honors

362 PROBABILITY AND STATISTICS—1

5 credits/year

This course is designed for students that have completed Algebra 2. Students will study methods of data collection and analysis. They will be exposed to various visual representations of data. The concepts of probability theory and combinatorics will also be studied. The graphing calculator is a required tool in this course. Upon completion of this course, students should be able to:

- Model sets of finite data appropriately
- Observe and analyze patterns in data and model the data using an appropriate mathematical function.
- Use probability to describe data distributions

Guideline: The most successful students have earned a C- or better in Algebra 2—1

370 COMPUTER SCIENCE PRINCIPLES - AP**5 credits/year**

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

372 COMPUTER SCIENCE A - VHS**5 credits/year**

AP Computer Science A is equivalent to a first-semester, college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A curriculum is compatible with many CS1 courses in colleges and universities.

375 INTRODUCTION TO COMPUTER SCIENCE**2.5 credits/every other day**

Students are introduced to the fundamental concepts of computer science and programming. The course begins with units on the Internet and Web Design where students learn the languages of the web: HTML and CSS. Next students are introduced to Javascript and learn programming concepts including data types and variables, input/output procedures, loop structures, string manipulation and modular programming techniques. Although this is an entry-level course in the computer science sequence, a thorough understanding of the mathematical concepts in Algebra 1 is required to master the material. This course is open to students in all grades; however freshman and sophomores will have priority enrollment.

376 WEB AND MOBILE APPLICATION DEVELOPMENT**2.5 credits/every other day**

Students will continue to study fundamental concepts of computer science and programming and apply them to web and mobile applications. Topics include algorithms, debugging, object-oriented programming, and security. Students will learn about persisting information in files and databases. A working knowledge of the concepts in Introduction to Computer Science is required to master the material.

Traditional Pathways in Science and Engineering

Grade 9	Grade 10	Grades 11 and 12	
Biology-H	Chemistry-H	Biology-AP AP Biology Lab-AP *	Environmental Science-AP AP Env. Sci. Lab-AP*
	Chemistry-AP AP Chemistry Lab-AP *	Chemistry-AP AP Chemistry Lab-AP*	
Biology-1	Chemistry-1	Physics-H	Physics-AP AP Physics Lab-AP*
	Chemistry-2	Chemistry-2	Anatomy & Physiology-1
	Earth Science-1	Physics-1	Earth Science-1
	Environmental Science-1	Anatomy & Physiology-H	Forensic Science-1*
	Game Design and 3D Graphic Design*	Environmental Science-1	Game Design and 3D Graphic Design*
	Engineering 2-2*	Game Design and 3D Graphic Design*	Game Design and 3D Graphic Design*
Exploring Eng. & Tech.-1*		Engineering 3-1	Engineering 4-H or 4-1
		Robotics	Robotics
		Marine Biology	Marine Biology

* indicates an every other day course

SCIENCE AND ENGINEERING

All students must earn a Competency Determination on the Science MCAS test in order to graduate. All freshmen must take Biology and, as a result, take the Biology MCAS test in the spring of their freshman year. In addition to the Competency Determination in Science, all students are required to pass a minimum of 15 credits in science, in order to meet the Hanover High School graduation requirements. In addition to Biology, it is strongly recommended that all students pass Chemistry as part of their science requirements.

Each science course strives to weave 21st century interdisciplinary themes such as global awareness, health literacy and civic literacy, with a strong content-based curriculum. Students use tools of modern technology to develop critical thinking and problem solving skills so they can thrive in a global society.

Calculator is required for Chemistry and Physics courses.

420 BIOLOGY - Advanced Placement

5 credits/year

This course is equivalent to a freshman level course in college and follows the guidelines of the College Board for the Advanced Placement Curriculum. The course will investigate biochemistry, molecular genetics, heredity, evolution, taxonomy, general botany and zoology principles, and ecology. Due to the intensity and amount of materials that need to be covered, students will be expected to address some material on an individual basis in addition to material discussed in class. Laboratory experiences are an integral part of the course and may include animal dissection. Students may also be required to participate in after-school labs. Summer reading will be required. This course is open to grade 11 and 12 students who have demonstrated a high level of achievement and success in Biology (H) and Chemistry (H) and are recommended by the teacher and their guidance counselor. Students may choose to purchase the textbook in the course at the beginning of the school year so that they may write and take notes in the text. Many students find the text an excellent reference as they enter college. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

421 BIOLOGY - Honors

5 credits/year

This course is based on the study of living things, which includes their unity, cellular structure, genetics, evolution, plants, animals, and humans. The study will focus on their diversity as well as the basic principles that apply to all of life. Laboratory exercises correlate with the text material attempting to give the students problems faced by practicing scientists. This course will fully prepare students for taking the MCAS exam offered in Biology.

422 BIOLOGY

5 credits/year

This college preparatory course is based upon the study of biological concepts, unifying principles and interrelationships. Living organisms are studied in their unity, including connections to the environment and current 21st century biological concerns. The laboratory investigations correlate to the six major units explored during the year: Cells, Genetics, Evolution and Biodiversity, Ecology, Anatomy and Physiology and Biochemistry, and present the students with hands-on and virtual exploration of scientific investigations. The laboratory investigations and class work are designed to provide students with the opportunity to work collaboratively and develop critical thinking, communication and problem solving skills. Outside written research is required including formal laboratory investigations. This course is designed to prepare students for the Biology MCAS Exam.

468 MARINE BIOLOGY

5 credits/year

This course is designed for students in grades 11 and 12 with an interest in marine biology and oceanography. This course provides an excellent background for students who are interested in further study of the oceans and

the organisms that inhabit it. Major concepts include the study of interrelationships of marine and terrestrial environments, the geology and geography of the oceans, marine organisms, and the ecology of coral reefs. Laboratory activities, including the examination of marine specimens are used throughout this course to build upon student knowledge. Labs, modeling, research, and projects will be used to explore these topics. There will be 2 trips to the coast to see first hand organisms in their environment as well as real life interactions with what we are learning in class. Major topics integrated throughout the course include: marine biology, marine geology, physical oceanography, chemical oceanography, research techniques, and environmental impacts.

430 CHEMISTRY - AP

5 credits/year

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry and is aligned with the College Board AP Chemistry curriculum. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. The global impact of chemistry upon our society and the world economy and other associated issues will be discussed to complement the curriculum. The prerequisites for this course according to the College Board guidelines are: "Students should have successfully completed a general high school chemistry course and Algebra II." Students who do not meet these prerequisites may request permission to enroll in the course from the STEM director. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

~~430 CHEMISTRY - Advanced Placement~~

~~5 credits/year~~

~~This course is the equivalent of a first-year college Chemistry course and follows the College Board's guidelines for the Advanced Placement curriculum. Topics covered include mass relations, gas behavior, atomic structure, chemical bonding, solution chemistry, reaction rates, chemical equilibrium, acid-base chemistry, electrochemistry, and thermodynamics. The global impact of chemistry upon the world economy and associated international relations will be included to complement the curriculum. This course is especially recommended for students having good quantitative reasoning skills, along with a strong interest in science, and who seek to improve their preparation for college. This course is for grade 10-12 students with teacher recommendation. Students may choose to purchase the textbook in the course at the beginning of the school year so that they may write and take notes in the text. Many students find the text an excellent reference as they enter college. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.~~

431 CHEMISTRY - Honors

5 credits/year

Students will communicate and collaborate while performing chemical investigations that complement the various theories/laws embodied in this discipline. Concepts and principles discussed and illustrated through differentiated instruction include scientific measurement, dimensional analysis, properties of matter, the periodic table of the elements, atomic structure, chemical bonding, chemical names and formulas, chemical reactions, chemical quantities, stoichiometry, oxidation and reduction, solutions, and gas laws. The honors course stresses critical thinking and problem solving and includes more difficult mathematical material than the ~~standard level college preparatory~~ course. The global impact of chemistry upon our society and the world economy and other associated issues will be discussed to complement the curriculum. This course will prepare students for taking the MCAS Chemistry exam. For grade 10-11 students who have successfully completed Honors Biology and are concurrently taking Algebra ~~2H~~.

432 CHEMISTRY—1

5 credits/year

This course provides chemical investigations to complement the various theories/laws embodied in this discipline. Concepts and principles discussed and illustrated include scientific measurement, dimensional analysis, properties of matter, the periodic table of the elements, atomic structure, chemical bonding, chemical nomenclature, chemical reactions, chemical quantities, chemical equations, stoichiometry, oxidation/reduction

and the gas laws. The global impact of chemistry upon the world economy and associated international relations will be included to complement the curriculum. This course is for grade 10-12 students who have completed Biology and concurrently taking Geometry. A co-taught section of this course is available.

433 CHEMISTRY - 2 5 credits/year

~~This course provides chemical investigations to complement the various theories/laws embodied in this discipline. Concepts and principles discussed and illustrated include scientific measurement, dimensional analysis, properties of matter, the periodic table of the elements, atomic structure, chemical bonding, chemical nomenclature, chemical reactions, chemical quantities, chemical equations, stoichiometry, oxidation/reduction and the gas laws. The global impact of chemistry upon the world economy and associated international relations will be included to complement the curriculum. This course is for grade 10-12 students who have completed Biology and concurrently taking level 2 mathematics.~~

440 PHYSICS - Advanced Placement 2 5 credits/year

Guided by the National Research Council and National Science Foundation, the College Board AP Program collaborated with college and university educators and AP teachers to develop AP Physics 2. In this course, students will develop critical thinking and reasoning skills, as defined by the AP Science Practices. Through inquiry-based learning, students will cultivate their understanding of physics and science practices as they explore the following topics: thermodynamics, ideal gases, kinetic theory, fluid statics, fluid dynamics, electrostatics, circuits, magnetism, electromagnetic induction, geometric optics, physical optics, quantum physics, atomic, and nuclear physics. The AP Physics 2 course is a full year course, which should be taken after students have had AP Physics 1. This course is strongly recommended to students who have an interest in physics, engineering, or mathematics and wish to be enrolled in a highly challenging course of study. Students should have taken or be concurrently taking pre-calculus or an equivalent course. Students may choose to purchase the textbook in the course at the beginning of the school year so that they may write and take notes in the text. Many students find the text an excellent reference as they enter college. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

441 PHYSICS - Advanced Placement 1 5 credits/year

Guided by the National Research Council and National Science Foundation, the College Board AP Program collaborated with college and university educators and AP teachers to develop AP Physics 1. In this course, students will develop critical thinking and reasoning skills, as defined by the AP Science Practices. Through inquiry-based learning, students will cultivate their understanding of physics and science practices as they explore the following topics: kinematics, dynamics, circular motion, harmonic motion, impulse, momentum, collisions, work, energy, rotational motion, circuits, mechanical waves, and sound. The AP Physics 1 course is designed to be taught over the course of a full academic year and may be taken as a first-year physics course with no prior physics course work necessary. Students should have taken or be concurrently taking precalculus or an equivalent course. Students may choose to purchase the textbook in the course at the beginning of the school year so that they may write and take notes in the text. Many students find the text an excellent reference as they enter college. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

442 PHYSICS - Honors 5 credits/year

The curriculum of this course follows the curriculum set forth by the AP College Board for Advanced Placement Physics 1. This course is the equivalent of a first-semester college course in algebra-based physics. The curriculum is taught at a slightly slower pace than the AP Physics 1 class and is covered in a fashion that would enable recommended students to take the AP Physics 2 class for college credit, provided they take both

the AP Physics 1 and AP Physics 2 exams. Any material not covered in the Honors Physics class would be required summer work for students wishing to take the AP Physics 2 class. Honors Physics primarily covers Newtonian mechanics including rotational dynamics and angular momentum; work, energy, and power; mechanical waves and sound. A full laboratory program is an integral part of the course. Students should have taken or be concurrently taking pre-calculus or an equivalent course.

443 PHYSICS—1

5 credits/year

This course will focus on the topics of kinematics and dynamics and integrate their applications in the areas of force, motion, collisions, heat, sound, and astronomy. This course is designed to cover the same topics as the AP Physics 1 course but in a less detailed mathematical form. As a basic science, it is recommended that all college level students complete Physics before continuing with advanced courses. A full laboratory program is an integral part of the course. Students should have completed geometry and be concurrently taking Algebra II, or an equivalent course. Although the Physics 1 course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the Physics 1 course itself.

450 ENVIRONMENTAL SCIENCE - Advanced Placement

5 credits/year

The Advanced Placement Environmental Science course is designed to be the equivalent of an introductory Environmental Science course at the college level and follows the guidelines of the College Board for the Advanced Placement Curriculum. The goal of the Advanced Placement Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. AP Environmental Science is interdisciplinary; it embraces a wide variety of topics from different areas of study (e.g. biology, chemistry, earth science, geography), yet there are several major unifying themes that cut across the many topics included in the study of environmental science. AP Environmental Science has a significant laboratory and field investigation component. Experiences both in the laboratory and in the field provide students with important opportunities to test concepts and principles that are introduced in the classroom, to explore specific problems with a depth not easily achieved otherwise, and to gain an awareness of the importance of confounding variables that exist in the “real world.” This course is open to grade 11 and 12 students who have demonstrated achievement and success in Biology and Chemistry and are recommended by a science teacher. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

452 ENVIRONMENTAL SCIENCE—1

5 credits/year

This lab-based course will teach the scientific principles, concepts and methodologies required to understand the relationship between human beings and their natural environment. Students will identify and analyze environmental problems both natural and human-made and evaluate the relative risks associated with these problems by examining alternative solutions for resolving and/or preventing them. Students will explore ways that we can work together globally to solve environmental issues. Students will explore the economic, ethical, social, and political implications of our actions with regards to the environment using case studies as the basis for their learning. This course is for grade 11-12 students who have successfully completed Biology. Completion of Chemistry recommended.

462 EARTH SCIENCE—1

5 credits/year

This course will consist of the study of geology, astronomy, meteorology, and oceanography. Students will learn about the earth’s interior, plate tectonics, oceans, continents, global warming, atmosphere, water supply, weather patterns, and evolution of stars, constellations, and recent developments in space science. This course also will make connections with health literacy in relation to the UV index and ozone depletion. There will be a

multiple series of lab-based activities to help the student fully understand the concept matter, which will be covered throughout the school year. Twenty-first century technology will randomly be used in the classroom or other resource areas assisting the student in understanding a more complete picture of the Earth's dynamic forces and the effects they will have on people. Students will be responsible for developing and conducting presentations on independent projects and hands on laboratory investigations supporting the curriculum throughout the year. This course is for grades 10 through 12 students who have passed Biology.

472 ANATOMY AND PHYSIOLOGY - Honors

5 credits/year

This elective course will explore the major human organ systems: integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, digestive, and endocrine. The focus of the course will be on students learning how these systems interact to maintain homeostasis. An examination of the 21st century medical issues will be covered through general course work, collaborative laboratory investigations, independent research projects, and presentations. This course is designed for students planning on pursuing a career in the healthcare sciences, including nursing, pharmacology, sports medicine and biotechnology. This course is for self-motivated students that have satisfactorily completed honors biology and chemistry. Laboratory investigations will provide real-world experiences for students, including dissections and biotechnology activities related to the pharmaceutical industry.

472 ANATOMY AND PHYSIOLOGY —1

5 credits/year

This elective course will explore the major human organ systems: integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, digestive, and endocrine. The focus of the course will be on students learning how these systems interact to maintain homeostasis. An examination of the 21st century medical issues will be covered through general course work, collaborative laboratory investigations, and research projects. Laboratory investigations will provide real-world experiences for students, including biotechnology activities related to the pharmaceutical industry.

475 FORENSIC SCIENCE —1

2.5 credits/every other day

Forensic Science is a multidisciplinary course that involves the application of concepts in biology, chemistry, physics, statistics, trigonometry, law, computer technology, psychology, and other various fields of study. At different points in the course, students will assume the role of a crime scene investigator, scientific analyst or expert witness. Emphasis is placed on practicing scientific skills and techniques, evidence examination, data collection and analysis. Types of evidence to be explored include: fingerprints, hair, fibers, and document analysis, which include paper, ink and handwriting analysis. Impressions such as tire tracks and tool marks will also be studied. Simulated blood detection, typing, and spatter patterns, DNA analysis, simulated saliva, semen and urine analysis, criminal profiling, simulated over the counter and illicit drugs, toxicology, death investigation, anthropology and entomology will be examined as well as other trace evidence such as soils, metals, and glass. Ballistics, arson and explosives may also be subjects that are explored. Thought-provoking mock cases, which include detailed scenarios and various types of evidence will be presented for analysis throughout the course. This course is for students who have successfully completed biology and chemistry.

927 SCIENCE LAB AIDE —1

2.5 credits/~~year~~every other

day

The Science Lab Aide Program provides an opportunity for students to partner with a science teacher and his/her students in order to provide a mutually valuable learning experience for all involved. As Science Lab Aide, student aides will work with a science teacher at the designated time and may serve in one or more of the following capacities: mentor, one-on-one or small group tutor, teacher assistant. Student aides typically work with the same teacher, class, and/or student(s) to establish a consistent partnership. This course is graded as Pass/Fail and satisfies the one-year community service requirement for Hanover High School students.

484 ENGINEERING 1: TECHNICAL DRAWING AND DESIGN 2.5 credits/every other day

This course involves an introductory experience in technical drawing as a tool of technical communication. Primary emphases are on development of basic drafting skills, visualization and solving graphical problems. Students will explore architectural concepts as well as mechanical drawings. This course will also introduce students to the engineering design process, and explore multiple topics in the world of engineering, including electronics, manufacturing, and physical computing. This course is open to all students.

TBD LIFE ON MARS 2.5 credits/every other day

This course will introduce basic engineering concepts and topics through the immersive theme of Life on Mars. Students will explore the following engineering concepts and gain skills in the engineering design process as they consider life on another planet: rockets, robotics, electronics, hydroponics, solar power, alternative energy, rovers, habitat design, and city planning. This course is open to all students.

485 ENGINEERING 2: DESIGN AND FABRICATION 2.5 credits/every other day

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Students will also develop fabrication skills including woodworking, electronics, welding, CNC machining, and additive manufacturing. This course is open to all students.

486: ENGINEERING 3: 3-D MODELING AND PROTOTYPING 5 credits/year

Through the use of Autodesk Inventor students will get an in-depth study of three dimensional modeling and component creation. Students will be expected to solve problems through the modeling and production of proof-of-concept prototypes. Additional topics include CNC programming, 3D printing, and advanced fabrication. This course is open to students in grades 11 and 12.

489 ENGINEERING 4: ENGINEERING CAPSTONE - HONORS 5 credits/year

This course is designed for students to create independent projects to further develop skills and experience in particular areas of interest. All project proposals must be approved by the instructor. Student proposals may be from any field of previous study in engineering and reflect an appropriate complexity and level of difficulty. This capstone course is open to students in grades 11 and 12 who have completed at least 2 courses in engineering.

484 ENGINEERING 1 - 1 2.5 credits/every other day

Engineering 1 is an introductory course for any student interested in pursuing a career in the fields of engineering or technology. Through the use of computers, tools, machines, and materials, students will apply academic knowledge to solve technological problems. During the course students will explore and experience the engineering design process. Other topics will include construction, manufacturing and technical drawing. The course will be a hands-on learning experience where students will be expected to apply concepts to interpret information, to solve problems, and to justify solutions. For grades 9-12 students.

485 ENGINEERING 2 - 1 2.5 credits/every other day

A continuation of Engineering I presents a more in-depth study of energy systems and the engineering design process. Concepts covered are central to many technological fields, including any engineering discipline, architecture, or design. This course may be taught by multiple instructors. For grades 10-12 students

486 ENGINEERING 3 - 1 5 credits/year

This course is for students interested in pursuing a degree or career in any field of engineering after high school. Students will use Solidworks, a three dimensional CAD software suite, to create 3D computer models of actual parts. With these models, students will perform engineering analysis and simulations, including solids and fluids under stress and thermal loadings. Analysis and simulation will be the precursor to fabrication and testing. Students will explore concepts in physics and material science as well as general engineering practices.

488 — ENGINEERING 4 — 1 **5 credits/year**

Students will receive instructor guidance for independent work on a multidisciplinary engineering project. Electronic documentation describing the process step by step will be required, allowing others to recreate the project.

489 — ENGINEERING 4 — Honors **5 credits/year**

Students will receive instructor guidance for independent work on a multidisciplinary engineering project at the honors level. Electronic documentation describing the process step by step will be required, allowing others to recreate the project.

490 SET DESIGN — 1 **2.5 credits/every other day**

This course teaches methods of approaching, developing, and completing set designs through detailed study encompassing scenic history, research, styles, and techniques. By designing several projects in conjunction with the drama class, students develop and expand skills and knowledge of artistic and technical demands of professional set designing. This course is open to all students interested in the design and production of a drama program. Among other projects, students will design and manufacture the sets for drama productions at Hanover High School.

492 ROBOTICS — 1 **2.5 credits/every other day**

This course is for students with an interest in robotics and computer programming. Students will apply the engineering design process and improve their computational thinking skills as they work collaboratively to design, construct, and write code to control their robots. Students will design autonomous robots that they will build and program using C to complete specific tasks for various challenges. The course is aligned to Next Generation Science and Common Core math standards. Students may have the option to compete in robotics competitions. For grades 11-12 students.

491 GAME DESIGN AND 3D GRAPHIC DESIGN **2.5 credits/every other day**

This class is for students interested in game design, computer generated graphics, and animation for use in movies and games. Students will be introduced to designing and animating sets and characters for video games and movies. Students will create simple arcade, platform and maze video games using Game Maker software. Functions in Game Maker will include creating Sprites, objects, backgrounds, functions, loops, points, levels, sound effects, lives, strength and sprite animation. Students will learn basic object-oriented programming.

TBD ENGINEERING FOR SUSTAINABILITY **5 credits/year**

This course will introduce the concept of sustainability and the history and impact on Engineering Design. Topics covered include: the history and impact of non-renewable resources, renewable energy and power, designing for re-purpose, sustainable forestry and agriculture, recycling and sustainability in our community, and the engineering design process for sustainability. This course is open to students in grades 11 and 12.

Traditional Pathways in World Languages

Grade 9	Grade 10	Grade 11	Grade 12
French 2-1 French 2-H	French 3-1 French 3-H	French 4-H	French 5-AP
French 1-1	French 2-1 French 2-H	French 4-1	French 5-H
Spanish 2-1 Spanish 2-H	Spanish 3-1 Spanish 3-H	French 3-1	French 4-H
Spanish 1-1	Spanish 2-1 Spanish 2-H	Spanish 4-H	French 4-1
	Intro. To Modern Greek/ Italian-1	Spanish 4-1	Spanish 5-AP
		Spanish 3-1	Spanish 5-H
		Intro. To Modern Greek/ Italian-1	Spanish 4-1
			Intro. To Modern Greek/ Italian-1

WORLD LANGUAGES

Our Core Values and Beliefs statement makes clear that the, “Hanover High School community provides a competitive and challenging curriculum specific to individual educational needs.” The World Language department actuates this 21st century mission through its academic curriculum and instruction in French, Spanish, and Modern Italian/Modern Greek classes. Intricately woven into world language classes are global and cultural awareness, along with literacy in the written and spoken word. Literacy in financial, economic, civic, health, and historical aspects are also taught through the World Languages curricula. Research demonstrates that world language study improves MCAS and SAT verbal and achievement test scores in both English and Mathematics. French is essential for business entrepreneurs dealing with the European Union countries, and Spanish will be spoken by 50% of the U.S. population by the year 2030.

All students are required to take two years of world language at the high school. Many colleges and universities presently require successful completion of three years of the same language. Completion of a fourth and fifth year is desirable for admission to the more selective colleges and universities.

FRENCH

501 FRENCH 1 **5 credits/year**

The beginnings of French grammar, composition, and communication are taught via projects, real-life simulation activities, and oral presentations. Additional listening and cultural skills are honed through the use of native-speaker recordings. Multimedia materials are included as instructional tools.

504 FRENCH 2 - Honors **5 credits/year**

Students will continue to refine the four skills of listening, speaking, reading, and writing by being exposed to an enriched and accelerated curriculum that emphasizes developing a higher level of proficiency and a more comprehensive knowledge of vocabulary and grammar. Students continue to study the culture, the people, and their customs. The expectations of this course require that students are highly motivated to communicate in the target language.

503 FRENCH 2 **5 credits/year**

This is a continuation of the interactive program of French grammar, composition and communication begun in French 1. There is an increased emphasis on listening, speaking, reading, and writing skills via compositions, collaborative group presentations, and native-speaker recordings. Multimedia materials are an integral part of instruction, with emphasis on technology.

506 FRENCH 3 - Honors **5 credits/year**

This course continues the development of proficiency in all four fundamental skills. Although the study of vocabulary and grammar continues, the course concentrates on oral and written communication. The student will read and discuss a variety of cultural and literary selections and will have frequent opportunities to do independent, paired, and group work. The expectations of this course require that students are highly motivated to communicate in the target language.

505 FRENCH 3 **5 credits/year**

This course continues to build on previously-gained reading, writing, and speaking skills. Students create and present projects in the target language, employing their collaboration and group-work skills. Students also exchange and communicate information within the confines of contextual vocabulary. A variety of multimedia materials are used throughout the course.

508 FRENCH 4 - Honors **5 credits/year**

This course is conducted in French. Students will become more proficient in the areas of reading, writing, speaking and listening and will be assessed in all areas in the language. This course will cover many of the French 4 topics (including French literature, movies and art) but will also include a survey of topics to be covered the following year in French 5-H /French 5 Advanced Placement.

507 FRENCH 4**5 credits/year**

This course is conducted in French. Students will work to become more proficient in reading, writing, and speaking the language. Students will also exchange and communicate information in the target language at a more sophisticated level and will work independently and collaboratively on written and oral presentations. Classic pieces of French literature and films will enrich the course, along with art and cultural studies.

509 FRENCH 5 - Honors**5 credits/year**

This course is conducted strictly in French. Students will move towards fluency in the areas of reading, writing, speaking, and listening and will be assessed in all areas in the language. This course will cover some of the French AP topics (including French literature, movies and art) but will focus more on in-depth political, cultural, and historical aspects of the Francophone world. Real-life situations will be simulated in and outside of the classroom.

510 FRENCH - Advanced Placement**5 credits/year**

This course is a college level course conducted completely in French. Proficiency is enhanced through the study of advanced grammar, culture, vocabulary and poetry. Literature, current events, and films serve as avenues for discussion and written assignments. Current events are studied from various Francophone countries, enhancing global awareness and civic literacy. This class will place special focus on the four major skills evaluated on the AP Exam – speaking, reading, listening, and writing. Students may choose to purchase the textbook in the course at the beginning of the school year so that they may write and take notes in the text. Many students find the text an excellent reference as they enter college. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

501 FRENCH 1 – 1**5 credits/year**

~~The beginnings of French grammar, composition and communication are taught via projects, real-life simulation activities, and oral presentations. Additional listening and cultural skills are honed through the use of native-speaker recordings. Current events in Francophone countries are included on a biweekly basis. Multimedia materials are included as instructional tools.~~

504 FRENCH 2 – Honors**5 credits/year**

~~Students will continue to refine the four skills of listening, speaking, reading and writing by being exposed to an enriched and accelerated curriculum that emphasizes developing a higher level of proficiency and a more comprehensive knowledge of vocabulary and grammar. Students continue to study the culture, the people, and their customs. The expectations of this course require that students are highly motivated to communicate in the target language.~~

503 FRENCH 2 – 1**5 credits/year**

~~This is a continuation of the interactive program of French grammar, composition and communication begun in French 1. There is an increased emphasis on listening, speaking, reading and writing skills via compositions, collaborative group presentations, and native-speaker recordings. Multimedia materials are an integral part of instruction, with emphasis on technology.~~

506 FRENCH 3 – Honors**5 credits/year**

This course continues the development of proficiency in all four fundamental skills. Although the study of vocabulary and grammar continues, the course concentrates on oral and written communication. The student will read and discuss a variety of cultural and literary selections and will have frequent opportunities to do independent, pair, and group work. The expectations of this course require that students are highly motivated to communicate in the target language.

505 — FRENCH 3 — 1 5 credits/year

This course continues to build on previously gained reading, writing, and speaking skills. Students create and present projects in the target language, employing their collaboration, group work skills. Students also exchange and communicate information within the confines of contextual vocabulary. Biweekly introduction of current events continues to be a key component in the learning environment. A variety of multimedia materials are used throughout the course.

508 — FRENCH 4 — Honors 5 credits/year

This course is conducted in French. Students will become more proficient in the areas of reading, writing, speaking and listening and will be assessed in all areas in the language. This course will cover many of the French 4-1 topics (including French literature, movies and art) but will also include a survey of topics to be covered the following year in French 5-II /French 5 Advanced Placement. Career paths using the French language are explored and enhanced global awareness is accentuated via the study of current events.

507 — FRENCH 4 — 1 5 credits/year

This course is conducted in French. Students will work to become more proficient in reading, writing, and speaking of the language. Students will also exchange and communicate information in the target language at a more sophisticated level and will work independently and collaboratively on written and oral presentations. Classic pieces of French literature and films will enrich the course, along with art and cultural studies. Current events are studied on a biweekly basis in the Francophone countries.

510 — FRENCH — Advanced Placement 5 credits/year

This course is a college level course conducted completely in French. Proficiency is enhanced through the study of advanced grammar, culture, vocabulary and poetry. Literature, current events and films serve as an avenue for discussion and written assignments. Current events are studied from various Francophone countries, enhancing global awareness and civic literacy. This class will place special focus on the four major skills evaluated on the AP Exam — speaking, reading, listening, and writing. Students are required to take the AP Exam. Students may choose to purchase the textbook in the course at the beginning of the school year so that they may write and take notes in the text. Many students find the text an excellent reference as they enter college. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

509 — FRENCH 5 — Honors 5 credits/year

This course is conducted strictly in French. Students will magnify their proficiency in the areas of reading, writing, speaking and listening and will be assessed in all areas in the language. This course will cover some of the French AP topics (including French literature, movies and art) but will more focus on in-depth political, cultural, and historical aspects of the Francophone world. Real life situations will be simulated in and outside of the classroom.

SPANISH

511 — SPANISH 1 — 1 5 credits/year

This is an interactive program in which students learn not only the beginnings of the Spanish language, but also

the customs, traditions and lifestyles of the many people who speak this language. Group work, role-play, and basic oral presentations are common assessments. Multimedia materials such as video and CD ROMs are used as instructional tools, especially authentic aural recordings.

514 SPANISH 2 - Honors

5 credits/year

Students will continue to refine the four skills of listening, speaking, reading and writing by being exposed to an enriched and accelerated curriculum that emphasizes developing a higher level of proficiency and a more comprehensive knowledge of vocabulary and grammar. Students continue to study the culture, the people, and their customs. The expectations of this course require that students are highly motivated to communicate in the target language.

513 SPANISH 2 —1

5 credits/year

This is a continuation of the interactive program begun in Spanish 1. Students are required to speak in the target language both during teacher-directed and student-driven activities. More complex role play and formal presentations are conducted in the target language. Students are also regularly required to write independently in the target language and work with their peers collaboratively. Multimedia materials are an integral part of instruction.

516 SPANISH 3 - Honors

5 credits/year

This course continues the development of proficiency in all four fundamental skills. Although the study of vocabulary and grammar continues, the course concentrates on oral and written communication. The student will read and discuss a variety of cultural and literary selections and will have frequent opportunities to do independent, pair, and group work. The expectations of this course require that students are highly motivated to communicate in the target language.

515 SPANISH 3 —1

5 credits/year

Oral communication is accentuated and reinforced through an integrated program of reading, writing, and grammatical study. Continued stress of learning useful vocabulary in real-life situations allows for civic literacy and global awareness. A video series is watched throughout the year to enhance listening skills and knowledge of Mexican culture. This course promotes communication and collaboration in the target language.

518 SPANISH 4 - Honors

5 credits/year

This course is conducted in Spanish and is designed to integrate all previously-acquired language skills, while promoting initiative and self-direction. Students will perfect their oral proficiency in communication and collaboration in the target language while simultaneously sharpening their reading, writing, and grammatical skills. Students will sharpen their listening comprehension skills through exposure to native speaker audio texts. Special emphasis will be given to developing interpersonal, interpretive and presentational writing and speaking skills. Cultural knowledge will be brought alive through literature, poetry, art and music and will be also be intertwined throughout the year with other class themes utilizing authentic sources both written and aural. Students will also be introduced to the six course themes of the AP Spanish Language and Culture class.

~~518 SPANISH 4 —Honors~~

~~5 credits/year~~

~~This course is conducted in Spanish and is designed to integrate all previously-acquired language skills, while promoting initiative and self-direction. Students will hone their oral proficiency in communication and collaboration in the target language while sharpening their reading, writing, and grammatical skills. Special cultural knowledge will be brought alive through art and music but will be also be intertwined throughout the year with other class themes. The course will cover many of the Spanish 4-1 topics but will also include a survey of topics to be covered in Spanish 5-H/Spanish Advanced Placement.~~

517 SPANISH 4 -4

5 credits/year

This course is designed to integrate all previously acquired language skills while promoting initiative and self-direction. Students will hone their oral proficiency in communication and collaboration in the target language while sharpening their reading, writing and grammatical skills. Students will be exposed to Spanish language films, videos, newspapers, magazines, websites and other realia in an effort to deepen their appreciation and understating of the culture of various Spanish-speaking countries.

~~**517 SPANISH 4 -1**~~~~5 credits/year~~~~This course is designed to integrate all previously acquired language skills while promoting initiative and self-direction. Students will hone their oral proficiency in communication and collaboration in the target language while sharpening their reading, writing and grammatical skills. Students will be exposed to Spanish language films, videos, newspapers, magazines, websites and other realia in an effort to deepen their appreciation and understating of the culture of various Spanish-speaking countries.~~**520 SPANISH - Advanced Placement**

5 credits/year

This course is conducted solely in Spanish. Proficiency is enhanced through the study of advanced grammar, culture, vocabulary, poetry, film analyses, expository assignments, and extensive oral practices, recorded and analyzed. This class will place special emphasis on the four major skills evaluated on the AP exam – speaking, reading, listening, and writing. The understanding and appreciation of Hispanic culture is enhanced through the study of history, customs and culture of various Hispanic nations. Authentic aural activities are integrated in the course via podcasts and streaming radio newscasts via the Internet. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

519 SPANISH 5 - Honors

5 credits/year

This course is conducted in Spanish. Native-speaking proficiency is solicited through in-depth analysis of Iberian and Latin American political, cultural, and historical topics. Literature, poetry, art, music, and film all serve as strategic vehicles to total-language competency. Critical thinking skills are enhanced in the target language through cooperative and collaborative activities. The four core language skills of listening, speaking, reading and writing are emphasized. Authentic aural activities are integrated in the course via podcasts or short videos. Streaming ~~internet~~Internet services and other authentic audio and visual sources will be implemented whenever possible.

~~**519 SPANISH 5 - Honors**~~~~5 credits/year~~~~This course is conducted in Spanish. Native-speaking proficiency is solicited through in-depth analysis of Iberian and Latin American political, cultural, and historical topics. Literature, poetry, art, music, and film all serve as strategic vehicles to total-language competency. Critical thinking skills are enhanced in the target language through cooperative and collaborative activities. Authentic aural activities are integrated in the course via podcasts and streaming radio newscasts via the Internet.~~**AMERICAN SIGN LANGUAGE****TBD AMERICAN SIGN LANGUAGE 1 -& 2**

5 credits/year

This course initiates the development of the ability to sign and understand American Sign Language. Students learn the fundamentals of grammar, basic vocabulary, and correct signing. Cultural aspects of the Deaf community are discussed. This is a dual enrollment course offered in collaboration with Massasoit Community College. Students who register will complete ASL 1 in the fall semester and ASL 2 in the spring semester.

TBD AMERICAN SIGN LANGUAGE 3 & -4

5 credits/year

This course is a continuation of ASL 1 & -2. -Emphasis is on the continued development of communication skills and face and body expressions. Students continue to acquire grammar, syntax, and vocabulary, which

enhances their ability to initiate and sustain conversations using American Sign Language. Cultural aspects of the Deaf community are explored. This is a dual enrollment course offered in collaboration with Massasoit Community College. Students who register will complete ASL 3 in the fall semester and ASL 4 in the spring semester.

GREEK AND ITALIAN

Foreign Language Elective

525 INTRO TO MODERN GREEK/ITALIAN LANGUAGE AND CULTURE—1

5 credits/year

Students will be exposed to basic conversational language, grammar, and vocabulary in Modern Greek and Italian. They will engage their communication and collaboration skills, as well as their technology skills, working together on research projects on mythological figures, famous wars, the foundation of democracy in Greece, and the extensive history and culture of both Greece and Italy. Global cultural awareness will be highlighted through rich, authentic artifacts from both countries.

Business and Information Technology

Grade 9	Grade 10	Grade 11	Grade 12
Accounting I (1)	Accounting I (1)	Internship (1)	Internship (1)
Business Communications**	Business Communications**	Business Communications**	Business Communications**
	Marketing/Management (1) *	Marketing/Management (1) *	Marketing/Management (1) *
	Accounting II (1)	Accounting II (1)	Accounting II (1)
	Digital Media (1) **	Digital Media (1) **	Digital Media (1) **
		Video Production (H)	Video Production (H)
		School to Work	School to Work

** indicates a 2.5 every other day option or 5 credit every day option

* indicates a semester course

BUSINESS AND INFORMATION TECHNOLOGY

According to The National Business Educators' Association (NBEA), students are motivated and learn best when they understand the relevance of the subject matter. Business education programs provide opportunities for relevant, real-world, engaging learning experiences, often using a project-based approach. Such experiences reinforce high academic standards and provide authentic contexts in which students can apply what they learn.

The Business Technology Program at Hanover High School offers a variety of business and computer courses to enrich students' high school experiences, introduce students to the exciting world of Business, and allow students to develop the knowledge and 21st Century skills needed in our ever-changing society. The Business Technology curriculum allows students to investigate business and technology in depth and will give them a strong background for future use in college, career, and life.

602 ACCOUNTING 1—1

5 credits/year

Through independent and collaborative problem solving and business simulations, students will develop the knowledge and skills needed to create, maintain, and interpret the financial records of a business whether as employee or entrepreneur. Students will also develop vital personal financial skills for the future including managing and reconciling a checking account complete with electronic transactions and preparing tax returns. Students are introduced to software used in Accounting. Real world business-related topics such as ethics are also incorporated into the course to help students develop an understanding of the countless issues existing in today's economy.

601 ACCOUNTING 2 - Honors

5 credits/year

In Accounting 2, students work independently and collaboratively to solve problems manually and using accounting software. Following a review of the Accounting 1 course, students will master the advanced principles and practices of accounting, including financial recording and reporting, inventory control systems, adjustments, stocks, and financial analysis. Additional business topics are included in the course to help students further develop their understanding of issues in the economy, and to enhance their ability to make sound business decisions.

605 SCHOOL TO WORK PROGRAM—2

5 credits/year

The School-to-Work Program provides a structure for the school and business community to close the gap between classroom learning and the skills necessary for career success. It is a cooperative program designed to provide the student with a meaningful job, which will make him/her a contributing member of the community and will instill a strong work ethic. This course provides the opportunity for students to gain authentic work experience and skills, possible full-time employment upon graduation, and career exploration. The program requires students to attend school for six periods a day and work a minimum of 10 hours per school week. Students must be at least 16 years of age and will be required to have an annual physical examination. Specific guidelines and rules will be distributed to all candidates at an initial meeting in June. For grade 11-12 students.

607 INTERNSHIP PROGRAM—1

5 credits/year

Internships provide students with hands-on experiences at real worksites to help them develop an understanding of professions that interest them before they enter college or the job market. In addition to learning about a profession, interns develop valuable personal and professional skills and are given the opportunity to network and develop professional relationships in their chosen career field. Today, many employers and colleges seek students who have acquired hands-on work experiences beyond the classroom. During the first semester, students will attend class where topics covered include Career Development and Research, Aptitude Testing (including the National Career Aptitude System), Resume Writing, Interviewing Techniques, and Professional Development including but not limited to Interpersonal Relationships, Attitude, Teamwork and Leadership,

Time Management, and Workplace Ethics. Upon completion of the course requirements, students will intern in a business or an organization, which will allow them to explore a career that matches their interest in a future profession. Students will receive credit toward graduation; therefore, the Site Mentor and the Internship Coordinator from the high school will assess students based on eight workplace competencies established by the Massachusetts Department of Education and through weekly journal entries. The program requires that students attend school for six periods a day while interning a minimum of five hours per week. Student interns must be responsible, reliable and independent, self-motivated learners. For grade 11-12 students.

617 MARKETING/MANAGEMENT

5 credits/year

This real-world elective allows students to work independently and in teams on a variety of project-based activities. The course begins with a comprehensive overview of marketing, including functions of marketing, market segmentation and target marketing, basic economics, the global economy, market research, promotion, advertising, selling, social responsibility, and the impacts and criticisms of marketing in society. Students will develop an understanding of the role marketing plays in their everyday lives. The course then examines the responsibilities of owning, operating and managing a business. Topics include the evolution of management, entrepreneurship, financial management and ethics. Students will work to develop the professional skills needed for the effective leadership, including planning, organizing, decision-making and communication.

642 BUSINESS COMMUNICATIONS—1

5 credits/year

In this course students will develop an understanding and appreciation for effective communication in business situations and environments. Emphasis is placed on all phases of communication: speaking, listening, thinking, responding, reading, writing, communicating non-verbally, and utilizing technology for communication. Business communication functions, processes, and applications in the context of business may be practiced through problem-based projects and real-world application. This course is interdisciplinary in that it provides students with the necessary technological tools that will enable them to enhance their communications skills through the correct formatting of academic documents, business documents, calculations, and written communications that connect with all other curricular areas. Students will use a variety of applications including Microsoft Word, Excel, PowerPoint as well as Google Docs, Sheets, and Slides.

665 DIGITAL MEDIA —1

2.5 credits/every other day

This computer technology course introduces a variety of applications focused on communicating effectively in the 21st century digital marketplace. Students will learn the significance of the changing role of technology through interactive presentations, web-based projects, and graphic design. In addition, students will explore the video production process. Applications used include: Photoshop, Illustrator, Flash, PowerPoint, and Final Cut. This course is for grade 10-12 students.

661 VIDEO PRODUCTION - Honors

5 credits/year

In this course students will be introduced to communications using audio and visual media. Students will explore the video production process; this includes planning, storyboarding, directing, as well as filming and editing of both fictional and non-fictional video pieces. Students will begin to build visual literacy skills that will help them communicate their ideas through media projects incorporating production deadlines, equipment care, filming techniques and creative problem solving. This course offers an authentic learning experience where students will be required to stretch themselves through collaboration, critical thinking, personal productivity, self-direction and accountability. Work outside of class is required. Applications used include: Photoshop, GarageBand, PowerPoint, iMovie, and Final Cut. This course is open to students with a teacher recommendation in grades 11 and 12 who have successfully completed Digital Media

TBD TECHNOLOGY ENTREPRENEURSHIP

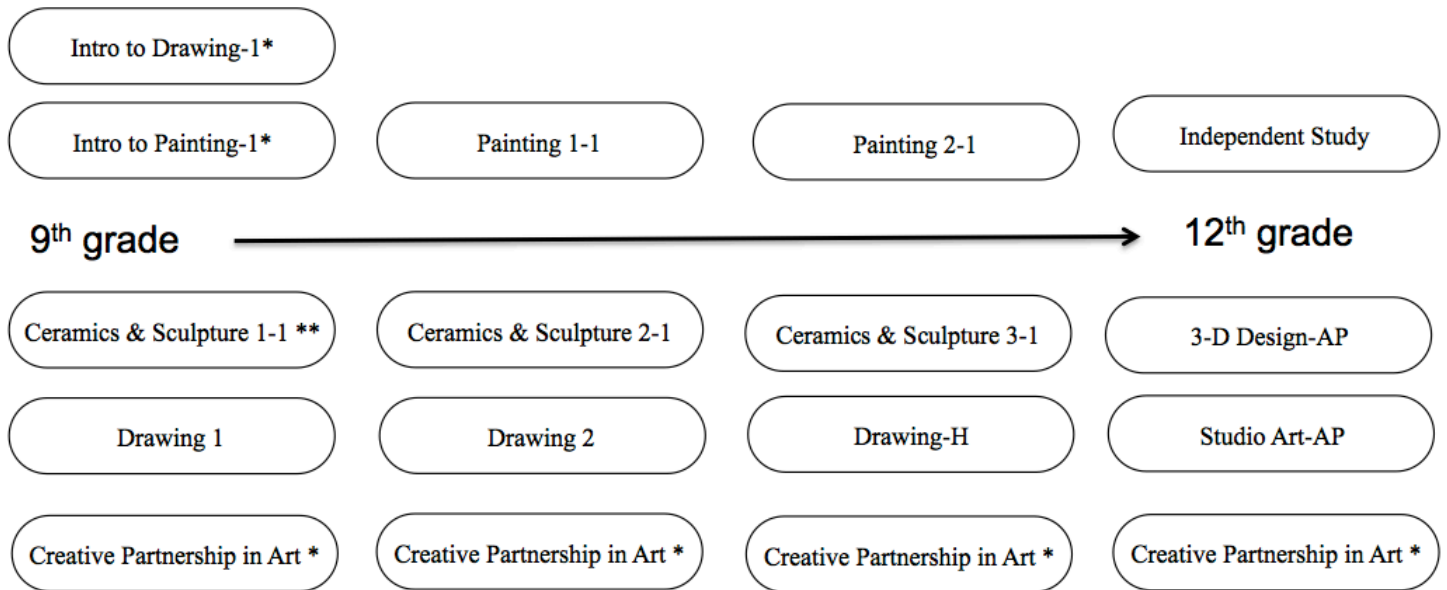
2.5 credits/every other day

This course will examine key concepts in today's business and technology environment including innovation, business planning and startup formation, software development, technology stacks and platforms, social engineering, project and process management as well as sales and marketing. This course is not about learning how to write a business plan or identifying the characteristics of a successful entrepreneur. Students in this course will start their own new business and experience entrepreneurship first hand by designing, building, and delivering an application of their own creation. Students should have some experience with websites, apps, and mobile devices, but no other technical or programming skills are required. This course is open to all students.

TBD ENTREPRENEURSHIP - START YOUR OWN BUSINESS **2.5 credits/every other day**

Whether you want to start your own tutoring or landscaping business right away or dream of owning your own Fortune 500 company someday, this course will help you get there. Students will learn about what it is to be an entrepreneur, the advantages and disadvantages of self-employment, and basic business economics and practices. The final project will be to complete a business plan and proposal that students can implement immediately or save for the future. This course is open to all students.

Traditional Pathways for Art



ART

700 INTRODUCTION TO DRAWING

2.5 credits/every other day

This course is a general survey of the art of drawing. Emphasis is placed on exploration and development of drawing skills using a variety of media. Students will develop techniques and personal styles through observation, imagination and experimentation. This class will prepare students for Drawing 1 or Honors Drawing with permission on instructor.

701 DRAWING ~~-1~~

5 credits/year

This course is a general survey of the art of drawing. Emphasis is placed on exploration and development of drawing skills using a variety of media. Students will develop techniques and personal styles through observation, imagination and experimentation. This class will prepare students for Honors Drawing.

702 DRAWING ~~-2~~

5 credits/year

This course builds on skills developed in Drawing 1. Emphasis is placed on further exploration and development of drawing skills using a variety of media. Students will develop techniques and personal styles through observation, imagination and experimentation. This class will prepare students for Honors Drawing.

703 DRAWING - Honors

5 credits/year

This course provides motivated students the chance to employ and study advanced drawing skills. Emphasis will be placed on developing a portfolio leading toward meeting the requirement of AP Drawing. Critique format, creativity, and critical thinking are stressed as major components of this course. Students will assume responsibility for self-assessment as well as collaborative assessments. This course is for grade 10-12 students with Art 1 and teacher recommendation.

704 ART STUDIO: 2-D DRAWING PORTFOLIO - AP

5 credits/year

This Advanced Placement course gives highly motivated students the opportunity to pursue a college level drawing course while still in high school. Expertise in a variety of media (breadth), a commitment to a particular visual concern or idea (concentration), and a development of the sense of excellence (quality) will be stressed. This course offers the striving art student the opportunity to develop a strong portfolio by participating in a college level art course. Emphasis on color and design through the use of line, shape, spatial illusion, motion, pattern, texture and value will be stressed. Innovation is stressed as a component of self-expression as well as leadership within the arts community. This course is for grade 11-12 students with teacher recommendation. Any student who enrolls in this course is required to submit an AP portfolio in May.

705 INTRODUCTION TO PAINTING ~~-1~~

2.5 credits/every other day

This is a painting fundamentals course emphasizing technique, material and related design considerations. Students will explore representational and abstract imagery using a wide variety of painting media. This course is for grade 9-12 students.

706 PAINTING ~~1-1~~

5 credits/year

This course will examine painting techniques, procedures and content in greater depth than Introduction to Painting. Students will be expected to fully explore their personal style and experiment with other modes of painted expression. This course is for grade 10-12 students with a passing grade in Introduction to Painting or teacher consent.

707 PAINTING 2 ~~-1~~

5 credits/year

This course will examine painting techniques, procedures and content in greater depth than Painting 1. Students will be expected to fully explore their personal style and experiment with other modes of painted expression.

This course is for grade 10-12 students with a passing grade in Painting 1 or teacher consent.

722 CERAMICS AND SCULPTURE 1 ~~1~~

5 credits/year or
2.5 credits/every other day

This is a course for students who are interested in working with clay and other three-dimensional media to heighten their creativity. Students will learn hand-building techniques in addition to basic wheel-throwing skills. Students will also explore other traditional and experimental methods of making sculpture including additive, subtractive, casting and assemblage sculpture. Priority enrollment given to grade 9-11 students.

724 CERAMICS AND SCULPTURE 2 ~~1~~

5 credits/year

This course builds on the knowledge, skills and content from Ceramics and Sculpture 1. Students will enrich their understanding of content and increase their skills using clay and a variety of other three-dimensional media to create innovative works of art. This course is for grade 10-12 students with a passing grade in Ceramics and Sculpture 1. This course emphasizes collaboration, critical thinking, and creative problem solving.

726 CERAMICS AND SCULPTURE 3 ~~1~~

5 credits/year

This course will run concurrently with AP 3-D Design. The course will build on the knowledge, skills and content from Ceramics and Sculpture 1 and 2. Students will enrich their understanding of content and increase their skills using clay and a variety of other sculptural media in innovative ways. Students will assume responsibility for self-assessment as well as collaborative assessments in critique format, creativity, and critical thinking. Students may choose to take this course as preparation for AP 3-D Design. For grade 11-12 students with a passing grade in Ceramics and Sculpture 1 and 2. This course emphasizes collaboration, critical thinking, and creative problem solving.

728 ART STUDIO: 3-D DESIGN PORTFOLIO - AP

5 credits/year

This Advanced Placement course gives highly motivated art students the opportunity to pursue a college level sculpture course while still in high school and allows the opportunity to develop a strong portfolio. Students will use innovative approaches to create original ceramic artwork, and will explore other three-dimensional media in inventive ways. These works should use the principles of 3-D design in an informed and experimental way. Emphases on mass, volume, color, light, and texture will be stressed. For grade 11-12 students with teacher recommendation. Any student who enrolls in this course is required to submit an AP portfolio in May. This course emphasizes collaboration, critical thinking, and creative problem solving.

729 CREATIVE PARTNERSHIP IN ART ~~2~~

2.5 credits/every other day

This course emphasizes collaboration and relationship building through the act of making art. Partnership in Art is dedicated to including all students in art-making activities while new friendships are formed. Collaborative and individual projects are completed, in addition to team-building and relationship-building activities. For grades 10-12. Teacher recommendation is required.

Traditional Pathways for Instrumental Music

9th grade

12th grade

Symphonic Band-1	Symphonic Band-H	Symphonic Band-H	Symphonic Band-H
Piano-1-1*	Piano 2-1*	Piano 3-1*	
American Contemporary Music-1*	American Contemporary Music-1	American Contemporary Music-1*	American Contemporary Music-1
Music in Film & Multimedia-1*	Music in Film & Multimedia-1*	Music in Film & Multimedia-1*	Music in Film & Multimedia-1*
Songwriting, Recording & Music Production	Songwriting, Recording & Music Production	Songwriting, Recording & Music Production	Songwriting, Recording & Music Production
	Music Theory and Composition - H	Instrumental Theory and Composition - H	Music Theory and Composition - H

* indicates a 2.5 credit every other day course

Traditional Pathways for Instrumental Music

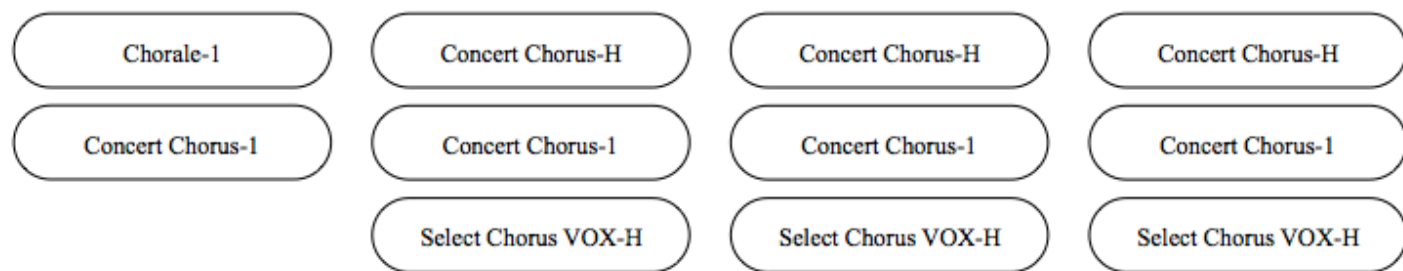
9th grade

12th grade

Symphonic Band-1	Symphonic Band-H	Symphonic Band-H	Symphonic Band-H
Piano-1-1*	Piano 2-1*	Piano 3-1*	
American Contemporary Music-1*	American Contemporary Music-1	American Contemporary Music-1*	American Contemporary Music-1
Music in Film & Multimedia-1*	Music in Film & Multimedia-1*	Music in Film & Multimedia-1*	Music in Film & Multimedia-1*
Songwriting, Recording & Music Production	Songwriting, Recording & Music Production	Songwriting, Recording & Music Production	Songwriting, Recording & Music Production
	Music Theory and Composition - H	Music Theory and Composition – H Music Theory 2 - AP	Music Theory and Composition – H Music Theory 2 - AP

* indicates a 2.5 credit every other day course

Choral



9th grade



12th grade

MUSIC

The HHS Music Department is committed to providing a comprehensive, sequential, collaborative program, offers a variety of performing ensembles and non-performance oriented classes designed to meet the needs of all students at Hanover High School. As a result, the performance-based classes participate in many activities throughout the year. These include three to four concerts per year and a Student Artists Recital. Ensembles also may participate in the following organizations, performances, and music festivals: the Massachusetts Instrumental and Choral Conductors' Association (MICCA) Music Festival, Bridgewater State University High School Honor Band, University of Massachusetts High School Honor Band, MMEA All-State Festival Band and Chorus, MMEA Southeast District Junior and Senior Festival, Southeastern Massachusetts School Bandmasters Association (SEMSBA) Junior and Senior Festival, Massachusetts Association of Jazz Educators (MAJE) Festival, the UMass Band Day and local parades and community performances such as the Hanover Halloween Parade, Town Tree Lighting, Holiday Caroling, Memorial Day Parade, annual Swing Dance, and Hanover Day. The music department also participates in out-of-state performance tours for the performing ensembles on an every-other year rotation. If you have any questions about these courses, please speak with the department teachers.

PERFORMING ENSEMBLES

761 SYMPHONIC BAND 1-4

5 credits/year

Symphonic Band is the centerpiece of the instrumental music department and is open to all wind and percussion instrumental students in grades 10-12. The Symphonic Band begins as the Pride of Hanover Marching Band in the Fall. Students will develop technique and musicianship through performance of quality literature from a variety of genres, styles, and historical periods. Students are expected to prepare for performances and rehearsals through individual practice and sectional rehearsals. Students are encouraged but not required to take private lessons on their instrument. Performing experiences include the Holiday Pops concert, MICCA Festival, Spring Pops, and a variety of community events. Throughout the duration of the course, the students will develop collaborative skills, creativity and innovation, life skills in leadership, ethics, accountability, adaptability, personal responsibility, productivity, social development, self-direction and responsibility. Previous instrumental music experience is recommended. This course is for all grade 9 instrumental students and grade 10-12 students who do not require honors credit.

760 SYMPHONIC BAND - H

5 credits/year

(See course description for 761 SYMPHONIC BAND 1-4)

To receive honors credit in instrumental performance, students will meet all obligations of Symphonic Band. Additionally, students will be required to audition for SEMMEA or SEMSBA, study privately, and assume a leadership role (drum major, section leader, librarian, public relations, uniform manager). This course is for grade 10-12 students with teacher recommendation.

750 CHORALE -4

5 credits/year

This ensemble is open to any student in grade 9 interested in treble singing. While no audition is required, students should speak with the Director to confirm their interest for membership in this ensemble. The course will provide students with experiences in vocal production techniques and multi-part (SA, SSA) singing. Emphasis will be placed on the development of music fundamentals, tone production, musical terms and symbols, developing performance skills, music literacy, listening capabilities, and sight-reading skills. A wide variety of music from many different countries, styles, and historical periods will be performed. The Chorale will offer female students a place to explore their vocal talents in a friendly environment. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual

respect for diverse societies and customs. Through the duration of the course, the students will develop skills in collaboration, creativity and innovation, life skills in leadership, ethics, accountability, adaptability, personal responsibility, people skills, self-direction and social responsibility. For grade 9 students with teacher recommendation.

754 SELECT CHORUS (VOX) - Honors

5 credits/year

This ensemble is open to students in grades 10-12 who are serious about advancing their vocal technique. Male and female students who show significant vocal talent and skill will be selected by audition with the Director. The course will provide students with numerous performance opportunities through the study of widely varied mixed, women's, and men's choral literature (SATB, SSA, TB). Emphasis will be placed on the development of appropriate vocal balance, blend, stylistic interpretation, and creativity through musical expression. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual respect for diverse societies and customs. Through the duration of the course, the students will develop skills in collaboration, creativity and innovation, life skills in leadership, ethics, accountability, adaptability, personal responsibility, personal productivity, people skills, self-direction and social responsibility. As a part of the honor credit component for this course, members must successfully complete an honors project each grading period, as described in the course syllabus. Members of this ensemble are expected to audition for MMEA District, SEMSBA, and ACDA honor choirs, as determined by both the student and the Director.

Ensemble members are strongly encouraged to take private voice lessons to help maintain the high level of musical integrity that has been established by this group. For grade 10–12 students by audition only.

755 CONCERT CHORUS - Honors

5 credits/year

Any student in grades 10 - 12 may elect to take Concert Chorus for honors credit. To receive honors credit, the student must successfully meet all the requirements of Concert Chorus plus complete various honors projects each grading period, as described in the course syllabus. In addition, students taking the honors section of this ensemble are expected to audition for MMEA District, SEMSBA, and ACDA honor choirs, as determined by both the student and the Director. Students are also expected to participate and perform in the Music Departments annual Student Artist Recital. Ensemble members are strongly encouraged to take private voice lessons to help maintain the high level of musical integrity that is expected of students performing at this level. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual respect for diverse societies and customs. Through the duration of the course, the students will develop skills in collaboration, creativity and innovation, life skills in leadership, ethics, accountability, adaptability, personal responsibility, people skills, self-direction and social responsibility. This course is for grade 10-12 students.

757 CONCERT CHORUS →

5 credits/year

This ensemble is open to any student in grades 9-12 who enjoys singing. While no competitive audition is required, students must complete a placement conference with the Director to ensure a vocally balanced ensemble. This conference should take place before registering for this group. The course will provide students with experiences in vocal production techniques and multi-part (SATB) singing. Emphasis will be placed on the continued development of music fundamentals, vocal balance/blend in a mixed-voice environment, developing performance skills, music literacy, listening capabilities and sight-reading skills. Music from classical to pop will be performed in concerts throughout the year. Students are encouraged to take private voice lessons. The Concert Chorus is a mixed-voice ensemble dedicated to high standards of musicianship. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual respect for diverse societies and customs. Through the duration of the course, the students will develop skills in collaboration, creativity and innovation, life skills in leadership, ethics, accountability, adaptability, personal

responsibility, people skills, self-direction and social responsibility. This course is for grade 9-12 students with teacher placement conference.

MUSIC THEORY & COMPOSITION

772 SONGWRITING, RECORDING,

AND MUSIC PRODUCTION (THEORY I) ~~1~~

2.5 credits/every other day

This course is intended for the student who has an interest in discovering more about how music is written, and is a prerequisite for students interested in advanced studies in music theory. Students will review the basic fundamentals of music including sound, harmony, rhythm, melody and growth. Students will also learn basic concepts in acoustics, and then apply these in the world of audio recording and live sound reinforcement. By the completion of the course, students will have a portfolio of songs and compositions in a variety of styles. Students will also explore composition of digital music by using various music software programs including StudioOne, Garageband, Finale, and Noteflight. Through the duration of the course, the students will develop skills in critical thinking, collaboration, creativity and innovation, information and media literacy, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, and self-direction. This course is required for “*Orchestration, Arranging, & Composition*” and “*AP Music Theory*”. This course is for grade 9-12 students.

791 MUSIC THEORY & COMPOSITION - H

5 credits/year

This course also utilizes the Music Technology Lab and builds on the music composition basics covered in Exploring Music. Students will continue using music theory software to cover in more depth the art of harmonization, including seventh chords, secondary dominant chords, minor and modal scales, linear harmony and formal aspects of larger works including chamber and orchestral compositions, as well as modern popular music, and will continue to explore the area of ear training and orchestration. Students will also work with Finale and Noteflight notation software on a more advanced level to create individual composition projects that they can both hear and see, and will be given the option to submit pieces of work for competition. Through the duration of the course, the students will develop skills in critical thinking, collaboration, creativity and innovation, information and media literacy, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, and self-direction. This course is for grade 10-12 students who have successfully completed *Songwriting, Recording, and Music Production* or by Director Recommendation

790 MUSIC THEORY – Advanced Placement

5 credits/year

This course is specifically designed for students with a strong interest in music. Upon successful completion of this course, the student will be prepared to take the AP Music Theory Exam. This course first helps master the rudiments and terminology of music learned in previous courses, including: notational skills; intervals; scales and keys; chords; metric organization; and rhythmic patterns. Then, this course progresses to more sophisticated and creative tasks, including: composition of a bass line for a given melody, implying appropriate harmony; realization of a figured bass; realization of a Roman numeral progression; and analysis of repertoire, including study of motivic treatment, examination of rhythmic and melodic interaction between individual voices of a composition, and harmonic analysis of functional tonal passages. Common-practice tonality will be studied via functional triadic harmony in traditional four-voice texture (with vocabulary including non-harmonic tones, seventh chords, and secondary dominants), tonal relationships, and modulation to closely related keys. This course also incorporates a brief introduction to Twentieth-century styles through analysis and original composition. Throughout the course, musical skills are developed through the following types of exercises (both conducted in class and assigned as homework): listening (discrete intervals, scales, etc.; dictations; excerpts from literature); sight-singing; written exercises; creative exercises; analytical exercises.

Through the duration of the course, the students will develop skills in critical thinking, collaboration, creativity and innovation, information and media literacy, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, social responsibility and self-direction. Any student who enrolls in an AP course is required to take the AP exam in May of the school year. This course is for grade 10-12 students who have successfully completed Music Theory I, Music Theory II or by teacher recommendation.

MUSIC ELECTIVES

798 MUSIC IN FILM AND MULTIMEDIA—1

2.5 credits/every other day

This course will allow students to explore the psychology of music and how it shapes our thoughts and emotions. They will discover specific ways in which music can be used as an influential tool through various media, as well as determine why some music fits certain situations where other music does not. Film concepts will include many examples of soundtracks, underscoring, and source music. Students will also investigate what makes a catchy jingle in advertising, as well as the composition of memorable themes for television themes. We will also investigate the world of video game music and the current market for multimedia composition. Through the duration of the course, the students will develop skills in critical thinking, collaboration, creativity and innovation, information and media literacy, and contextual learning. This course is for grade 9-12 students.

768 AMERICAN CONTEMPORARY MUSIC

5 credits/year

This course is intended for the student who has a general interest in music, but may not be involved in one of the performance ensembles. The course will follow the development of Western music through the birth of American music and then carefully examine the various styles that were indigenous to America. The development of popular music, beginning with the blues and Jazz, continuing through early rock-n-roll, with the British invasion, and popular trends up to today will be explored as well as Musical Theatre and contemporary American music. The students will increase their global awareness through the study of Western and African music and how these traditions gave birth to American music. Through the duration of the course, the students will develop skills in critical thinking, communication skills, collaboration, creativity and innovation, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, and self-direction. This course is for grade 9-12 students.

781 PIANO 1—1

2.5 credits/every other day

This course will provide students with introductory experiences on the keyboard. Taught in the Music Technology Lab, each student will have opportunities to develop performance techniques necessary to perform simple songs on our KORG keyboards. No prior piano/keyboard skills are needed for this course. Students will gain a working knowledge of selected scales, chord progressions, music reading skills, and expressive characteristics appropriate to the keyboard. Students will also explore the evolution of the keyboard to its current technology, and will learn about famous pianists and composers. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual respect for diverse societies and customs. Through the duration of the course, the students will develop skills in critical thinking, communication skills, collaboration, creativity and innovation, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, and self-direction. This course is for grade 9-12 students. Students who have successfully completed Piano 1 may register for Piano 2—1 or Piano 3—1. ~~Also for Piano 2—1 (782) and Piano 3—1 (783).~~

782 PIANO 2

2.5 credits/every other day

This course will provide students with introductory experiences on the keyboard. Taught in the Music Technology Lab, each student will have opportunities to develop performance techniques necessary to perform simple songs on our KORG keyboards. No prior piano/keyboard skills are needed for this course. Students will

gain a working knowledge of selected scales, chord progressions, music reading skills, and expressive characteristics appropriate to the keyboard. Students will also explore the evolution of the keyboard to its current technology, and will learn about famous pianists and composers. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual respect for diverse societies and customs. Through the duration of the course, the students will develop skills in critical thinking, communication skills, collaboration, creativity and innovation, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, and self-direction. This course is for grade 9-12 students. Students who have successfully completed Piano 1 may register for Piano 2.

783 PIANO 3

2.5 credits/every other day

This course will provide students with introductory experiences on the keyboard. Taught in the Music Technology Lab, each student will have opportunities to develop performance techniques necessary to perform simple songs on our KORG keyboards. No prior piano/keyboard skills are needed for this course. Students will gain a working knowledge of selected scales, chord progressions, music reading skills, and expressive characteristics appropriate to the keyboard. Students will also explore the evolution of the keyboard to its current technology, and will learn about famous pianists and composers. The students will increase their global awareness through the study of music from other nations and cultures resulting in a mutual respect for diverse societies and customs. Through the duration of the course, the students will develop skills in critical thinking, communication skills, collaboration, creativity and innovation, and contextual learning; and life skills in accountability, adaptability, personal responsibility, personal productivity, people skills, and self-direction. This course is for grade 9-12 students. Students who have successfully completed Piano 2 may register for Piano 3.

TBD HISTORY OF WESTERN MUSIC

5 credits/year

Over the course of a year, students will be immersed in the entirety of the history of western music, from the Ancient Greeks to the present day. Particular focuses of the class will include providing a variety of musical examples for students to listen to, a study of the particular compositional threads, styles and trends that connect one time period to the next, and the study of social, political, religious, and technological influences on the development of musical styles. This course is open to all students.

TBD PARTNERSHIP IN MUSIC

2.5 credits/every other day

Partnership in Music is a collaborative class for typical learners as well as learners with various disabilities. This class will facilitate a positive collaboration between students that focuses on various aspects of music to include song, reading music, dance, and using instruments. By creating, singing, moving, and listening to music, a wide range of cognitive, emotional and physical abilities are also brought into focus. This course is open to all students.

PHYSICAL EDUCATION AND WELLNESS

Physical Education and Health Education are combined to make up the Wellness Education Curriculum. Each course offers students a combination of life-time activities and health related topics designed to broaden the student's overall well-being. All students are required to take four years of Physical Education to graduate.

802 PE 9/10

2.5 credits/every other day

This introductory course will provide learners with an understanding of health-related fitness, group dynamics, communication and collaboration, and individual/team skill building. The following learning experiences may be included: basketball, badminton, health-related fitness, strength training, touch football, field hockey, power walking, volleyball, ultimate Frisbee, yoga, softball, whiffle ball, rag ball and tennis. Students will be able to perform and demonstrate proper stretching mechanics. Students will demonstrate their learning and achievement through performance-based, written and technology assessments. In addition to physical activities, each year relevant adolescent health and wellness topics will be integrated into the curriculum. The curriculum may include wellness topics such as diet, sun safety, body image, substance abuse, bullying and depression.

803 PE 11/12

2.5 credits/every other day

~~This physical education course, for juniors and seniors, will include learning experiences in health fitness and exercise concepts, group dynamics, movement studies, strength training and conditioning, lifetime activities, and advanced team concepts. Specific activities offered include badminton, weight training, aerobics, yoga, Pilates, team handball, floor hockey, two-hand touch football, ultimate Frisbee, power walking, tennis, softball, and basketball. Students will demonstrate their learning achievement through performance and/or cognitive assessments. All students will learn the lifesaving techniques of CPR (CPR certification is optional). Each year, relevant adolescent health and wellness topics will be integrated into the curriculum. The wellness topics may include safe driving, substance abuse, gender identity, healthy relationships, CPR and First Aid, healthy sleep habits, depression and suicide prevention.~~

TBD STRENGTH AND CONDITONING

2.5

credits/every other day

This elective course for grade 11-12 students will provide students with an understanding of how improve their muscular strength and endurance, cardiovascular fitness, athletic and functional performance, and injury prevention. The following learning experiences may be included in the course: Olympic lifting, power lifting, isolated exercises for individual muscle groups, plyometrics, stretching, core work, proper warm-up and cool-down, and nutrition topics. Classes will be conducted inside the gymnasium, weight room, on the track, and in a classroom setting. Students will demonstrate their learning and achievement through performance-based and written assessments.

TBD LIFESAVING SKILLS

2.5 credits/every other day

This elective course for grade 11-12 students will teach students how to appropriately respond to, prevent, and identify a variety of medical and emergency situations. Topics to be covered include, but are not limited to the following: First Aid, Adult, Child, Infant Cardio Pulmonary Resuscitation (CPR) and AED use, Mock Alice Training, Tourniquet training, Self defense-R.A.D for Men and R.A.D for Women, and Narcan Administration. Students will have the option to obtain certification from American Red Cross from First Aid and CPR. In addition, students will be exposed to a variety of current health/wellness topics. Knowledge gained from a variety of topics will help educate, empower, and foster positive decision-making. Community involvement/partnerships will be implemented during this course as much as practical and possible. Lastly, it is essential that students be active participants during this course, as well as effective communicators and collaborators.

TBD ~~Physical Education and the~~ FUNDAMENTALS OF TEAM SPORTS AND FITNESS

2.5 credits/every other day

This elective physical education course is for students in grades 11-12. This course will include learning experiences in sport, fitness, leisure, recreation, group-dynamics, communication, collaboration and cooperation. The course design will consist of a variety of individual and team sports. Concepts include but are not limited to net/wall, striking/fielding, territorial games and lifetime-leisure activities. Classes will be conducted inside the gymnasium, track/fields/paths, and classroom settings. Students will demonstrate their learning and achievement through state and national performance based standards and written assignments

TBD LIFETIME FITNESS

2.5 credits/every other day

This elective course for students in grades 11 and 12 will teach students fitness activities that can improve strength, flexibility, mobility, balance, and overall health and wellbeing. Units of study may include the following lifetime fitness activities: yoga, ~~pilates~~Pilates, meditation, mobility exercises, strength training (core, exercise bands, body weight exercise), and power walking. Students will explore their personal wellness and fitness levels by setting goals to improve in each area. Students will use modern technology applications to monitor progress towards each goal, and will be assessed weekly according to this progression.

TBD PARTNERSHIP IN PHYSICAL EDUCATION

2.5 credits/every other day

A collaborative instructional program for both typical learners as well as learners with a disability to give all students the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness. Interested students should contact one of the PE/Wellness teachers. ~~This course is open to all students.~~