Hanover High School

PROGRAM OF STUDIES
2020–2021

Matthew J. Paquette
Principal

Kelly A. Stukenborg
Associate Principal

Sheila M. Walsh
Humanities Director

Matthew M. Plummer
STEM Director

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Principal
Matthew Paquette

Assistant Principal
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Humanities Director
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STEM Director
Matthew Plummer

Superintendent
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Assistant Superintendent for Curriculum and Instruction
Deborah St. Ives

Assistant Superintendent for Business and Finance
Dr. Thomas Raab

Director of Pupil Personnel
Keith Guyette

School Committee
Leah Miller, Chairperson
Ruth Lynch, Vice Chairperson
Kimberly Booker, Member
Libby Corbo, Member
John Geary, Member

2019-2020 School Council Members

Matthew Paquette, Co-chairperson
Jan Curley, Faculty
Shayle Emerson, Faculty
Steven Rodday, Faculty
Patricia Elkhill, Community Member
Patti Taylor, Co-chairperson
Nicholas Colaw, 2020 Student
Emma Gannon, 2020 Student
Fiona Hutchison, 2021 Student
Shamus Ball, 2021 Student

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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.

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: March 13, 2019

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 understanding of **civic responsibility** and worldwide current events.
English	X	X	X					
Social Studies	X	X						X
Foreign Language	X	X	X					
Math				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 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 Learning Expectations.

1. 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.

2a. 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 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 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 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 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.

2b. 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 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 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 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 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 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 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)

2c. 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 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 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 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 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 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.

3. 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).
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.

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

Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals. **(ISTE 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.

5. 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.

6. Social Learning Expectation: The HHS graduate practices personal wellness.

Promote habits and conduct that enhance health and wellness, and guide efforts to build healthy families, relationships, schools, and communities.. **(MA DESE GP I - V)**				
Levels of Achievement				
Criteria	**1 – Beginning**	**2 – Developing**	**3 – Proficient**	**4 – Exemplary**
Health & Wellness: 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.
Health & Wellness: 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.
Health & Wellness: 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.
Physical Education: 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.
Physical Education: 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.
Physical Education: 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.

7. 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.

8. 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 Parents/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 ensures that you're equipped with the essential skills necessary to meet the high expectations of college and the workplace. In short, our goal is to provide you with the essential skills needed for your success after graduation. The Massachusetts Department of Elementary and Secondary Education identifies broad, skills-based themes. 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, (f) and 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

How to Use The Program of Studies

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. 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.

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. 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 (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 Preparatory
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).

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

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 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 (e.g., 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 10 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 10 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 Courses (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 level English 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 Courses (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 Electives/Freshman Communications (10 credits)

Other 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 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 B- or better to continue in an honors course. It is recommended that a student earn B+ or better to move from college preparatory to honors coursework. 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 9th grade students in the spring of their 8th 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

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. Additionally, all freshmen will be required to participate in the PSAT 8/9. The exam will be administered during the school day. The score report from these exams will provide the individualized educational tools necessary for our students to get an early start in preparation for college and career. Hanover High School faculty will evaluate the results in the aggregate addressing school-wide strengths and weaknesses 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. There is a fee to take the PSAT. 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 in 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. 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, all divided by 9.

Grade Point Average and Class Rank
Any Hanover High School leveled course is part of the HHS Grade Point Average (GPA). In order to compile a GPA, the "Weights for Final Grades" chart will be used. This chart is used for GPA calculation and CLASS RANK PERCENTILE. Grade point averages will be listed on transcripts as a 4.0 scale.

HHS GPA: Includes all leveled courses
Academic Core Course GPA: Includes all weighted non-elective core courses

All students are calculated in class rank percentile. Any course that is leveled will be factored in determining class rank percentile. Class rank percentile 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 percentile is determined by the sum of the final GPA equivalents divided by the number of leveled/weighted courses.
- Transfer grades are not calculated into either HHS GPA or Core Course GPA.
- 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.

Weights for Final Grades, GPA, and Class Rank Percentile

Letter Grade	Numeric Equivalent	AP	Honors	CP
A+	97-100	5.1	4.8	4.3
A	93-96	4.8	4.5	4.0
A–	90-92	4.5	4.2	3.7
B+	87-89	4.2	3.9	3.4
B	83-86	3.9	3.6	3.1
B–	80-82	3.6	3.3	2.8
C+	77-79	3.3	3.0	2.5
C	73-76	3.0	2.7	2.2
C–	70-72	2.7	2.4	1.9
D+	67-69	2.4	2.1	1.6
D	63-66	2.1	1.8	1.3
D–	60-62	1.8	1.5	1.0
F	59 below	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 placed in courses they may not have requested in order to give the student a full and complete schedule.
- 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 and student initiated schedule changes after the add/drop deadline require the completion of the schedule change request form and a conversation with a guidance counselor. Forms can be found in the guidance office.
- The deadline for all add/drops is <u>one week</u> 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 Handbook. <u>These dates are subject to change at the discretion of the principal based upon snow days</u>.
- 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.

Dual Enrollment
As part of the Massachusetts Education Reform Act, students may qualify to take college level courses 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 and 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 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 the 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 High School Special Education Administrator.

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. Depending on their IEPs students may earn 2.5 or 5.0 credits per year in Academic Strategies and will be graded pass/fail.

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 and college preparatory offerings. 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 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 login to VHS online at: www.govhs.org to see the course offerings. For further information, please see your guidance counselor or librarian and request a registration form and VHS course contract.

School to Work Program

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.

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.

Hanover High School Innovative Pathways

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

Beginning with the class of 2021, students may choose to declare their intent to concentrate their studies within a particular pathway, which simply means the student is planning to concentrate their selection of courses within that pathway. This optional declaration will occur during the course registration process.

Pathway Requirements

Students completing the pathway requirements will be recognized on their official school transcript upon graduation as having graduated with that particular pathway concentration.

High School Courses

- 25 credits earned by successfully completing a minimum of 5 approved pathway courses
- Please refer to the Pathway Approved Courses on pages 26-29

Extracurricular Hours

- 20 hours accrued across a minimum of 5 different activities occurring during junior or senior years
- Beginning July 1 after sophomore year, students may submit extracurricular activities and hours through the Pathway Widget in Aspen

Fine and Performing Arts Pathway – Approved Courses

Music
- Concert Chorus
- VOX
- Symphonic Band
- Jazz Ensemble
- Class Piano I
- Class Piano II
- Class Piano III
- Music Theory - AP
- Songwriting, Recording, & Music Production
- Music in Film & Multimedia
- Partnership in Music
- Jazz Lab
- Guitar

Art
- Drawing
- Drawing - Honors
- 2D Drawing Portfolio - AP
- Painting
- 3D Art/Ceramics 1
- 3D Art/Ceramics 2
- 3D Art/Ceramics 3
- 3D Design Portfolio - AP
- Partnership in Art

Drama
- Drama
- Honors Drama 2
- Technical Theatre

Information Technology
- Digital Media
- Video Production
- Computer Science through Game Design

Social Studies
- World History through Art
- 19th and 20th Century 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 Music Festival
- Summer Youth Music School
- Drum Major Academy

Engineering and Technology Pathway – Approved Courses

Math
- Calculus - AP
- Calculus - H
- Precalculus - H
- Precalculus
- Physics 2 - AP
- Physics 1 - AP
- Physics - H
- Physics 1
- Conceptual Physics

Engineering
- Engineering 1: Technical Drawing and Design
- Engineering 2: Design and Fabrication
- Engineering 3: 3D Modeling and Prototyping
- Engineering 4: Honors Capstone
- Robotics

Information Technology
- Computer Science Principles - AP
- Computer Science A Java - AP
- Computer Science through Game Design
- Video Production 1 - H
- Video Production 2 - H
- Digital Media

Virtual High School Courses
- Biotechnology
- Computer Aided Design (CAD)
- Creative Programming with Scratch
- Cryptography: Math Behind Secret Messages
- Engineering for Sustainable Energy
- Engineering Principles Java Fundamentals
- Java Programming
- Math and Modern Logic
- Mathematics of Electricity
- Mission to the International Space Station
- Programming in Visual Basic
- Science from Space
- Solar Energy Design
- Video Game Design
- Web Design

Health and Human Services Pathway – Approved Courses

English
- English 11 - AP
- English 11 - H
- English 11
- Public Speaking
- Broadcast Journalism

Social Studies
- Govt and Politics - AP
- Psychology - AP
- School Mentor
- Peer Leadership
- Life Skills Student Aide
- Psychology & Sociology
- Global Studies
- Sports & Society

Science
- Biology - AP
- Chemistry - AP
- Anatomy and Physiology - H
- Environmental Science - AP
- Environmental Science - H
- Earth and Environmental Science
- Marine Biology
- Health Care Occupations

Information Technology
- Computer Science through Game Design

Foreign Language
- French 4 - H
- French 5 - H, AP
- Spanish 4 - H
- Spanish - 5, AP

PE/Wellness
- Lifetime Fitness
- Team Sports and Cooperation
- Lifesaving Skills
- Strength and Conditioning

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 Pathway – Approved Courses

Business
- Accounting 1
- Accounting 2 - H
- Internship 1
- Internship 2
- Marketing & Management

English
- Broadcast Journalism

Information Technology
- Digital Media
- Computer Science through Game Design
- Web Application Development

Social Studies
- Global Studies
- Peer Leadership

Mathematics
- Probability & Statistics
- Algebra 3

Virtual High School Courses
- Economics - AP
- Business & Personal Law
- International Business
- Economics
- Entrepreneurship
- Investing in the Stock Market
- Marketing & the Internet
- Personal Finance

Other
- School to Work

Internships
- Student-determined Internship

Other Considerations for all Pathways

The following courses, projects, and experiences may be applied to pathway requirements with faculty approval. To apply for credit, students need to submit a proposal to the Curriculum Directors through the Pathway Widget in Aspen. The Curriculum Directors in conjunction with the faculty member approving the coursework will determine the number of credits to be awarded.

Faculty-initiated Projects

- Video Yearbook
- Independent project
- School to Work
- Internship

Student-initiated Projects

- Partnership in Art, Music, or Physical Education
- Student Aide in Life Skills, Cedar School, or Middle School
- College Courses
- Workshops and Seminars

In addition, a student may request faculty approval for any course listed in the Program of Studies for a pathway. It is possible for a student and teacher to work together to modify an existing course to fit within a pathway. These other considerations are intentionally open 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.

English

Grade 9	Grade 10	Grade 11	Grade 12
English 9 – H	English 10 – H	English 11 – AP	English 12 – AP
English 9	English 10	English 11 – H	English 12: Reader's Journey – CP, H
Freshman Communications**	Drama 2 – H*	English 11	English 12: Adventures in Space & Time – CP, H
Drama 1*	Drama 1*	Drama 2 – H*	English 12: Literature & Pop Culture – CP, H
Broadcast Journalism*	Broadcast Journalism*	Drama 1*	Drama 2-H*
Technical Theater*	Technical Theater*	Broadcast Journalism*	Drama 1*
Poetry Workshop*	Poetry Workshop*	Technical Theater*	Broadcast Journalism*
		Poetry Workshop*	Technical Theater*
			Poetry Workshop*

*Indicates a 2.5 credit course

**Indicates a 1.25 credit course

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.

109 FRESHMAN COMMUNICATIONS 1.25 credits/year

Serving as a skills-based bridge between middle school and high school, Freshman Communications affords all ninth-grade students a shared educational experience wherein they will acquire, refine, and apply essential skills, knowledge, and literacies associated with the academic expectations of a college-preparatory high school. With consistent emphasis on the fundamental skills of reading, writing, speaking, and problem solving, this course advances students in their abilities to communicate effectively in a variety of situations and environments. Ultimately, these combined experiences in communication will not only foster student talent in the essential use of technology, but also they will serve as an academic, skills-based foundation for success in future courses.

Freshman Communications consists of four overarching curriculum units including public speaking and discourse, technology integration, and research and evaluation skills. In these areas, students will adapt speech through a variety of contexts and tasks (formal and informal), initiate and participate effectively in a range of collaborative discussions, and learn to build on others' ideas and express their own thoughts clearly and persuasively. Students will become well-versed in Google Drive, Google Classroom, and Google Docs, Sheets, and Slides. Essential aspects of technical, expository, and argumentative writing will be a central focus throughout the course. In terms of research and investigation, students will learn to identify and refine topics, find and evaluate sources, and note and organize information. Overall, this is a foundational and fundamental course for all ninth-grade students providing a groundwork for all future educational experiences for each of our students' individual college and career pathways.

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 online 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, powerpoint presentations, etc.), are assigned independent reading, and work on oral interpretation and informative speeches.

112 ENGLISH 9 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.

NOTE: Students will participate in a freshman 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. Counselors will provide instruction on a variety of topics that may include the following: 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 are intellectually demanding and, consequently, promote improvements in reading comprehension skills and improved vocabulary. *Julius Caesar*, *A Tale of Two Cities*, *Lord of the Flies*, *Night*, and *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. Students are also encouraged to write, direct, and act in their own dramatic creations and present an informative or persuasive speech. Writing expository papers is required with frequent assignments of varying length. Critical and persuasive papers are assigned that require MLA documentation of 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.

122 ENGLISH 10 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. Students read several classics such as *Lord of the Flies, To Kill a Mockingbird* and *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 summary. Students also engage in group projects of a literary or creative nature and give oral presentations. A co-taught section of this course is available.

130 ENGLISH 11 – Advanced Placement Language & Composition 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 nonfiction (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 <u>required</u> to take the AP exam.

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 the Lincoln/Douglas debates 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 text and online sources, and these online sources are often accessed via web searches and the literary website JSTOR. 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 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, to practice in writing essays for college applications. Students sharpen their composition skills by learning to write the summary. Students often engage in group work to collectively think about and to solve thorny literary conundrums.

140 ENGLISH 12 – Advanced Placement Literature & Composition 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, 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 text and on Internet sites such as JSTOR. Previous success (B or higher) in an honors English 11 or AP Language class is required. Requirements: Summer reading; also, any student who enrolls in an AP course is required to take the AP exam in May.

144 ENGLISH 12 – A Reader's Journey – Honors 5 credits/year

145 ENGLISH 12 – A Reader's Journey

The Reader's Journey 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. It 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, including essays, poetry, and short stories. Students will work 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 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. This course will culminate in the development of a project that is planned, prepared, and presented in close association with teacher and community involvement. Students can take this course at either a college preparatory or honors level.

146 ENGLISH 12 – An Adventure in Space and Time – Honors 5 credits/year
147 ENGLISH 12 – An Adventure in Space and Time

This science fiction and fantasy course will cover the conjoined genres of science fiction and fantasy. Students will read literature from the scope and history of sci-fi and fantasy, as well as look at the influence they have had on the real world, such as Star Trek's influence on the genesis of the iPhone, for example. Texts will not be limited to print, but include television and movies as well. Students will become familiar with the history of Western science fiction & fantasy and be exposed to the science fiction & fantasy of other cultures. Students will write literary analysis of science fiction & fantasy as well as create their own works in accordance with the conventions of the genres. Students will also utilize a website that allows the publication of stories in "micro-" format, designed for mobile devices. This course will culminate in the development of a project that is planned, prepared, and presented in close association with teacher and community involvement. Students can take this course at either a college preparatory or honors level.

153 ENGLISH 12 – Literature and Popular Culture - Honors 5 credits/year
154 ENGLISH 12 – Literature and Popular Culture

The Literature and Popular Culture course includes readings from a variety of genres in both classic and contemporary texts from American, British, and global literary traditions. Students will keep a journal for reflective responses to our readings and complete critical expository essays. They will also learn to read as writers and write as readers in preparation for the college writing experience. Throughout the course, students will draw connections between our readings and present popular culture. We will analyze thematic relationships between the two, evaluate these relationships in other cultural and literary contexts, and apply our findings through creative expression. This course will culminate in the development of a project that is planned, prepared, and presented in close association with teacher and community involvement. Students can take this course at either a college preparatory or honors level.

ENGLISH ELECTIVES

173 DRAMA 1 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 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.

784 TECHNICAL THEATER 2.5 credits/every other day

This course will introduce students to technical theater concepts, design, and implementation. The course will center around hands-on training as well as theory in theatrical elements including, but not limited to, lighting, sound, stage management, properties, costumes, makeup, safety protocols (IATSE Standards), publicity and house management, set design and supervised construction, show production, and rights and licensing. Students will gain a well-rounded understanding of technical theater, theater production and theatrical design. They will research, read and analyze theatrical productions/works for technical design elements. Learned skills will be applied to classwork, full scale productions (Main Stage Musical, Drama Festival, Spring Show, PRISM, etc.) and in school presentations. They will learn how to keep a clean and safe workspace, how to program and run our sound and lighting boards, how to work our rigging and fly rail systems, and general theater maintenance.

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.

History and Social Studies

Grade 9	Grade 10	Grade 11	Grade 12
US History 1 – H	US History 2 – AP	US Government – AP	US Government – AP
US History 1	US History 2 – H	World History – AP	Psychology – AP
	US History 2	World History – H	Psychology/Sociology
		World History	Global Studies
		World History through Art	U.S. History Film – H
		Peer Leadership	Economics – H
		School Mentor*	Sports & Society
			Peer Leadership
			School Mentor*

*Indicates a 2.5 credit course

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.

211 UNITED STATES HISTORY 1 – Honors 5 credits/year

This course covers the Revolution through World War I. 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 global society.

212 UNITED STATES HISTORY 1 5 credits/year

This is an academically rigorous course designed to present a comprehensive survey of American History from the Revolution through World War I. 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.

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 <u>required</u> to take the AP exam in May of the school year.

221 UNITED STATES HISTORY 2 – Honors 5 credits/year

This course covers American History from the 1920's 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.

222 UNITED STATES HISTORY 2 5 credits/year

This course is designed to present an academically demanding, comprehensive survey of United States history from the 1920's to the present. It continues to build on the development of the nation's political, social, and economic institutions and the global role of the United States into the twenty-first century. Students will continue to develop their research, communication, and collaboration skills to understand America's role in global affairs, often using primary source materials for analysis and evaluation. A co-taught section of this course is available.

200 WORLD HISTORY: MODERN – Advanced Placement 5 credits/year

This is a rigorous, college-level course designed to explore human history from 1200 CE 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 AP Exam, including multiple choice question strategies, and long essay and short essay development.

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 5 credits/year

World History 1 is designed to allow students to practice analytical 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 a means for analysis, synthesis and evaluation.

204 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. GOVERNMENT AND POLITICS – Advanced Placement 5 credits/year

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.

231 COMPARATIVE GOVERNMENT AND POLITICS – Advanced Placement 5 credits/year

This course introduces students to the rich diversity of political life outside the United States. The course uses a comparative approach to examine the political structures, policies, and political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally, students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

This course could pair with US Government and Politics or exist as a separate course. In pairing the course, students would learn the US Government and Politics curriculum during the first half of the school year and transition to the comparative course during the second half. Students would have the opportunity to take both AP tests at the end of the year for the chance at college credit in two courses. Run separately, both courses would exist on their own and students could decide whether or not to take both.

265 PEER LEADERSHIP SEMINAR 2.5 credits/year

The students in this class will be trained by the Anti-Defamation League's *World of Difference* peer trainers.The training will provide students with the skills and resources necessary to design and lead interactive projects for their peers and other students.The role of a student in the Peer Leadership Seminar is to create and run educational projects for their peers and to promote and model civility and respect. Students must have the willingness to take a stand against prejudice and be willing to make a commitment to creating a positive social atmosphere at Hanover High School. Each student will be responsible for participating in several school-based projects throughout the year. The mission of the Peer Leadership Seminar is to reduce stereotyping and prejudice and increase acceptance of individual differences. This course is for grades 11-12 and is graded as Pass/Fail.

925 SCHOOL STUDENT MENTOR 2.5 credits/year

The School Student Mentor Program provides an opportunity for students to partner with teachers and students within the district in order to provide a mutually valuable learning experience for all involved. As a member of the School Student Mentor Program, student mentors will travel to other schools at a designated time and may serve in one or more of the following capacities: mentor, one-on-one or small group tutor, teacher assistant. Student mentors typically work with the same teacher, class, and/or student(s) to establish a consistent partnership. This course is graded as Pass/Fail.

926 LIFE SKILLS STUDENT AIDE 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. Completion of an application and teacher recommendation is required.

HISTORY and SOCIAL STUDIES ELECTIVES GRADE 12 ONLY

249 PSYCHOLOGY & SOCIOLOGY 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.

250 PSYCHOLOGY – Advanced Placement 5 credits/year

This course is designed to introduce 12th grade students to the systematic and scientific study of the behavior and mental processes of human beings. 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. Previous success in an honors or AP Biology class is recommended. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

259 SPORTS AND SOCIETY 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 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.

263 ECONOMICS – HONORS 5 credits/year

Economics is the study of how people and governments make decisions regarding money, production, consumption, and employment. Topics covered will include the law of supply and demand, saving, borrowing, and investing. Students considering a major in business or students simply interested in their own financial futures should consider taking this class. Upon completion of the course, students will understand terms such as labor, capital, inflation, unemployment, and money supply.

272 19th and 20th CENTURY AMERICAN HISTORY – Honors 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 be given in the fall.

Mathematics

Grade 9	Grade 10	Grade 11	Grade 12
Geometry – H	Algebra 2 – H	Precalculus – H	Calculus – AP
Geometry	Algebra 2	Precalculus	Calculus – H
Algebra 1	Geometry	Algebra 2	Precalculus
			Probability & Statistics
			Algebra 3

Note: Please find the Accounting and Computer Science courses listed in the Business and Information Technology section of this Program of Studies.

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) the MCAS Mathematics test in order to graduate. Furthermore, it is strongly recommended that all students take and pass Algebra 2. At the discretion of the principal, Accounting may be used as the fourth year of mathematics for those students who have completed Algebra 2. 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 be challenged and 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, Precalculus, Calculus, or Statistics should purchase a graphing calculator, preferably a TI-84 Plus or TI-84 Color. 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, 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. Although there are graphing calculator apps that can be downloaded and used on mobile devices, keep in mind that mobile devices are not allowed on the MCAS, PSAT, SAT, and AP exams. Therefore, it is important that students have access to and learn to use an assessment-approved graphing calculator. 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.

312 ALGEBRA 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.

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

Guideline: The most successful students have earned an A− or better in Algebra 1.

322 GEOMETRY 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; a co-taught section of this course is available.

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 B− or better in Geometry − Honors.

332 ALGEBRA 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 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; A co-taught section of this course is available.

334 ALGEBRA 3 5 credits/year

334D ALGEBRA 3 – Dual Enrollment Quincy College

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 on college placement exams. 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
- Simply 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

Guideline: The most successful students have earned a C– or better in Algebra 2; A co-taught section of this course is available.

341 PRECALCULUS – Honors 5 credits/year

341D PRECALCULUS – Honors – Dual Enrollment Quincy College

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. 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, model, and perform operations 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
- 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 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
- 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

Guideline: The most successful students have earned a C− or better in Algebra 2

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 required Advanced Placement Exam to receive Advanced Placement credit. The graphing calculator is an essential tool in this course.

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

351 CALCULUS – Honors 5 credits/year

351D CALCULUS – Honors – Dual Enrollment Quincy College

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.

Guideline: The most successful students have earned a C+ or better in Precalculus − Honors.

362 PROBABILITY AND STATISTICS 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.

Science and Engineering

Grade 9	Grade 10	Grade 11	Grade 12
Biology – H	Chemistry – AP	Biology – AP	Biology – AP
Biology	Chemistry – H	Chemistry – AP	Chemistry – AP
Engineering 1*	Chemistry	Physics – AP 1	Physics – AP 1, AP 2
Robotics*	Engineering 2*	Physics – H	Physics – H
Healthcare Occupations	Robotics*	Physics – Conceptual	Physics – Conceptual
	Healthcare Occupations	Environmental Science – AP	Environmental Science – AP
		Environmental Science – H	Environmental Science – H
		Environmental Science	Environmental Science
		Anatomy & Physiology – H	Anatomy & Physiology – H
		Marine Science	Marine Science
		Engineering 3	Engineering 4 – H
		Healthcare Occupations	Healthcare Occupations

*Indicates a 2.5 credit course

Note: AP Science are 7.5 credit courses that meet every day with a double period every other day

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 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.

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 <u>required</u> to take the AP exam in May of the school year.

421 BIOLOGY – Honors 5 credits/year

This honors 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 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 and reports. The honors course is inquiry-based and designed to prepare students for future honors science courses by moving at an accelerated pace, exploring the key concepts in great depth, using mathematical models, and engaging students with independent work where appropriate. This course is designed to prepare students for the Biology MCAS Exam.

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 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 provide students with the opportunity to work collaboratively and develop critical thinking, communication and problem solving skills. Outside written research is required including laboratory investigations and reports. This course is designed to prepare students for the Biology MCAS Exam.

430 CHEMISTRY – Advanced Placement 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 2." 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.

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 skills. 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 2.

432 CHEMISTRY 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.

440 PHYSICS 2 – Advanced Placement 5 credits/year

Guided by the National Research Council and the 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. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

441 PHYSICS 1 – Advanced Placement 5 credits/year

Guided by the National Research Council and the 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 coursework 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 – Conceptual 5 credits/year

This college preparatory physics course teaches physics concepts without the need for advanced mathematics. This course makes use of a three stage learning cycle of exploration, concept development, and concept application. Principles of force, motion, energy, electricity, magnetism, waves, vibrations, and light are developed and applied through reading assignments, lessons, demonstrations, laboratory work, computer simulations, problem solving, critical thinking and discussions. Real work applications of physics principles will be explored. This course is for those students who have an understanding of algebra and geometry and are seeking acceptance to a standard 2-4 year college.

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 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 5 credits/year

This lab-based course will teach the scientific principles, concepts and methodologies required to understand the relationship between human beings, their natural environment, and the Earth's dynamic forces. 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. Technology will be used in the classroom and 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 and the environment.

468 MARINE SCIENCE 5 credits/year

468D MARINE SCIENCE – Dual Enrollment Quincy College

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.

471 ANATOMY AND PHYSIOLOGY – Honors 5 credits/year

471D ANATOMY AND PHYSIOLOGY – Honors – Dual Enrollment Quincy College

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 current 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.

478 HEALTH CARE OCCUPATIONS 2.5 credits/every other day

The Health Science Careers course will cover health and science topics for the student who would like to learn about health careers. Students will learn about human development across the lifespan, disease processes/prevention, health assessment, first aid and more. The course will feature speakers from various health professions. Students will practice standardized test-taking skills and skills that support success in their science classes.

927 SCIENCE LAB AIDE 2.5 credits/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.

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: 3D 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.

492 ROBOTICS 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.

World Languages

Grade 9	Grade 10	Grade 11	Grade 12
French 2 – H	French 3 – H	French 4 – H	French 5 – AP
French 2	French 3	French 4	French 5 – H
French 1	French 2	French 3	French 4
Spanish 2 – H	Spanish 3 – H	Spanish 4 – H	Spanish 5 – AP
Spanish 2	Spanish 3	Spanish 4	Spanish 5 – H
Spanish 1	Spanish 2	Spanish 3	Spanish 4
			Greek & Italian
American Sign Language 1	American Sign Language 1, 2	American Sign Language 1, 2	American Sign Language 1, 2

Note: American Sign Language does not count towards the two year language requirement for graduation without the express permission of the principal

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 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

This is an interactive program in which students learn not only the basics of the French 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 and online materials are used as instructional tools, especially authentic aural recordings.

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 primarily 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 5 – 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. Any student who enrolls in an AP course is required to take the AP exam in May of the school year.

SPANISH

511 SPANISH 1 5 credits/year

This is an interactive program in which students learn not only the basics 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 are used as instructional tools, especially authentic aural recordings.

514 SPANISH 2 – Honors 5 credits/year

Students will 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 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, both orally and in writing.

513 SPANISH 2 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. The study of vocabulary and grammar ~~i~~s accelerated, as 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. A video series is watched throughout the year to enhance listening and comprehension skills.

515 SPANISH 3 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 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. Students will also explore opportunities for outreach into the community and/or engage in cultural exchanges.

517 SPANISH 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. Students will also explore opportunities for outreach into the community and/or engage in cultural exchanges.

519 SPANISH 5 – Honors 5 credits/year

This course is conducted primarily 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 services and other audio and visual sources will be implemented whenever possible.

520 SPANISH 5 – 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, expository assignments, and extensive oral practices. 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.

AMERICAN SIGN LANGUAGE

851/852 AMERICAN SIGN LANGUAGE 1 & 2 – Dual Enrollment 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.

GREEK AND ITALIAN

525 INTRO TO MODERN GREEK/ITALIAN LANGUAGE AND CULTURE 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. This course is only available to seniors unless approved by the teacher, guidance counselor and/or principal.

Business and Information Technology

Grade 9	Grade 10	Grade 11	Grade 12
Accounting 1	Accounting 1	Accounting 2 – H	Accounting 2 – H
	Accounting 2 – H	Internship 1	Internship 1 or 2
	Digital Media*	Digital Media*	Digital Media*
	Marketing & Management	Marketing & Management	Marketing & Management
		Video Production 1 – H	Video Production 2 – H
			Video Production 1 – H
Freshman Seminar*	Computer Science Principles – AP	Computer Science Principles – AP	Computer Science Principles – AP
Computer Science Game Design*	Computer Science Game Design*	Computer Science A Java – AP	Computer Science A Java – AP
		Computer Science Game Design*	Computer Science Game Design*

*Indicates a 2.5 credit 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 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 5 credits/year

602D ACCOUNTING 1 – Dual Enrollment Quincy College

Through independent and collaborative problem solving, and the use of technology, 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, including budgeting, banking, and credit, to foster financially sound decision-making in the future. Real world, business-related topics, such as ethics, are incorporated into the course to help students develop an understanding of issues existing in today's economy. This course is offered as an optional Dual Enrollment course through Quincy College for students in grades 9-12.

601 ACCOUNTING 2 – Honors 5 credits/year

601D ACCOUNTING 2 – Honors – Dual Enrollment Quincy College

Following a review of Accounting 1, students will master advanced practices and principles of Accounting, including financial statement preparation and analysis, adjustments, inventory valuation, fixed assets and depreciation, receivables and liabilities, and stocks. Students will work independently and collaboratively to solve complex, college-level Accounting problems. Spreadsheet software will be used in problem solving. Additional business topics are included in the course to help students develop an understanding of issues existing in the economy, and to enhance their ability to make sound business decisions. This course is offered as an optional Dual Enrollment course through Quincy College for students in grades 9-12.

607 INTERNSHIP 1 5 credits/year

608 INTERNSHIP 2

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 effective leadership, including planning, organizing, decision-making and communication.

661 VIDEO PRODUCTION 1 – 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.

662 VIDEO PRODUCTION 2 – Honors 5 credits/year

This is a capstone project-based course in which students are expected to build upon all the skills and techniques learned in Video Production. Students will be expected to strive for excellence in the video production process; including planning, storyboarding, directing, as well as filming and editing of both fictional and non-fictional video pieces. Students will employ and refine their visual literacy skills to 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. This course is only open to teacher-recommended, grade 12 students that have successfully completed Video Production 1.

665 DIGITAL MEDIA 2.5 credits/every other day

This computer technology course introduces a variety of applications focused on communicating effectively in the current 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.

370 COMPUTER SCIENCE PRINCIPLES – Advanced Placement 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 – Advanced Placement 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 the Java programming 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 first year computer science courses in colleges and universities.

491 COMPUTER SCIENCE THROUGH GAME DESIGN 2.5 credits/every other day

This course is for students interested in computer science and game design. Students will learn basic programming and computer science concepts and apply their skills to create a variety of games using multiple platforms such as: Scratch, Code HS, Game Maker, Unity, and Alice. Students will use programming concepts such as functions, loops, variables, strings, comments, logical operators, and decision structures to create arcade, platform, and maze video games.

Art

Grade 9	Grade 10	Grade 11	Grade 12
3D / Ceramics 1*	3D / Ceramics 2	3D / Ceramics 3	3D Design – AP
Drawing	Drawing	Drawing – H	Studio Art – AP
Drawing *	Drawing *	Drawing	Drawing – H
Painting*	Painting *	Drawing *	Painting – H
Painting	Painting	Painting – H	Partnership in Art*
	Painting – H	Painting	
	Partnership in Art*	Painting *	
		Partnership in Art*	

*Indicates a 2.5 credit course

700 DRAWING – Every Other Day 2.5 credits/every other day
701 DRAWING – Every Day 5 credits/year

This course explores a general survey of the art of drawing. Emphasis is placed on the development of drawing skills, using a variety of media. Students will develop techniques and personal styles through observation, imagination, and experimentation. The course can be taken each year, or students can advance to Honors Drawing upon instructor recommendation.

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: 2D DRAWING PORTFOLIO – Advanced Placement 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 PAINTING – Every Other Day 2.5 credits/every other day
706 PAINTING – Every Day 5 credits/year

This course emphasizes painting technique, material-use, and related design considerations. The course also examines painting procedures and content. Students will explore representational and abstract imagery using a wide variety of painting media. They will also be expected to fully explore their personal style and to experiment with other modes of painted expression. The course can be taken each year, or students can advance to Honors Painting upon instructor recommendation.

707 PAINTING – Honors 5 credits/year

This course provides motivated students the chance to employ and study advanced painting skills. Emphasis will be placed on developing a portfolio leading toward meeting the requirement of the Advanced Placement course. 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 teacher recommendation.

723 3D ART / CERAMICS 1 2.5 credits/every other day

Students taking this course will explore three-dimensional art-making using clay and other 3D media. Students will learn hand-building techniques with clay including pinching, coiling, slab-building, how to use molds, and combinations of these techniques. In addition to functional pieces, students will explore sculptural forms with clay. Students will also learn about glazing methods and the firing process. In addition to clay, traditional and experimental sculpture techniques will be investigated using a variety of 3D media including glass, natural materials, found objects, wire, paper-maché, and reused/recycled materials. This course emphasizes collaboration, critical thinking, and creative problem solving. Priority given to grade 9-10 students.

724 3D ART / CERAMICS 2 5 credits/year

This course builds on the knowledge, skills and content from 3D Art/Ceramics 1. Students will learn more advanced techniques, in addition to using previously learned techniques in more innovative, conceptual, and sophisticated ways. Students will increase their skills using clay and a variety of other 3D media including glass, metal, natural materials, found objects, wire, wood, paper-maché, and reused/recycled materials. Students taking this course will complete research projects containing artistic, writing, and computer presentation components to expand their knowledge of the history of ceramics and sculpture, and the contemporary world of 3D Art and its artists. This course emphasizes collaboration, critical thinking, and creative problem solving. Priority given to grade 10-11 students.

726 3D ART / CERAMICS 3 5 credits/year

Students in this course will enrich their understanding of three-dimensional artistic applications and increase their skills using clay and a wide variety of other sculptural media in innovative ways. The course gives highly motivated art students the opportunity to explore ceramics and sculpture to more technically-advanced and conceptually-advanced levels. Students will explore representational and nonrepresentational sculpture while utilizing the Principles of 3D Design in informed and experimental ways. Students will create a "mini portfolio" in preparation for the Advanced Placement 3D Design course. This course emphasizes collaboration, critical thinking, and creative problem solving. For Grades 11-12.

728 ART STUDIO: 3D DESIGN PORTFOLIO – Advanced Placement 5 credits/year

This Advanced Placement course gives highly motivated art students the opportunity to pursue a collegiate-level sculpture course while in high school. Students will explore sculpture in representational and nonrepresentational ways using clay and other three-dimensional media. Student work will demonstrate the Principles of 3D Design in informed and experimental ways. Through direct teacher instruction, students will produce a volume of high quality pieces of three-dimensional artwork, which will be assembled into an AP portfolio and submitted to the College Board. This course emphasizes collaboration, critical thinking, and creative problem solving. For Grades 11-12. Teacher recommendation is required.

729 PARTNERSHIP IN ART 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 connections and friendships are formed. Collaborative and individual projects will be completed, in addition to team-building and relationship-building activities. This course emphasizes collaboration, critical thinking, and creative problem solving. For Grades 10-12. Teacher recommendation is required.

Music

Grade 9	Grade 10	Grade 11	Grade 12
Symphonic Band	Symphonic Band – H	Symphonic Band – H	Symphonic Band – H
Piano 1*	Piano 1, 2*	Piano 1, 2, 3*	Piano 1, 2, 3*
Guitar 1*	Guitar 1, 2*	Guitar 1, 2, 3*	Guitar 1, 2, 3*
American Contemporary Music*	American Contemporary Music*	American Contemporary Music*	American Contemporary Music*
Music in Film & Media*	Music in Film & Media*	Music in Film & Media*	Music in Film & Media*
	Partnership in Music*	Partnership in Music*	Partnership in Music*
Songwriting*	Songwriting*	Songwriting*	Songwriting*
Recording & Music Production*	Recording & Music Production*	Recording & Music Production*	Recording & Music Production*
	Music Theory & Composition – H	Music Theory & Composition – H	Music Theory & Composition – AP
	Concert Chorus – H	Concert Chorus – H	Concert Chorus – H
Concert Chorus	Concert Chorus	Concert Chorus	Concert Chorus
	Select Chorus VOX – H	Select Chorus VOX – H	Select Chorus VOX – H

*Indicates a 2.5 credit course

MUSIC

The HHS Music Department is committed to providing a comprehensive, sequential, and collaborative program that 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 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

To receive honors credit in instrumental performance, students will meet all obligations of Symphonic Band (see course description above). 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.

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

The students in this course 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. 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.

757 CONCERT CHORUS 5 credits/year

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 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.

MUSIC ELECTIVES

765 GUITAR 2.5 credits/every other day

This course will serve as an introduction to guitar playing. Over the course of the year, students will develop skills related to performing and practicing guitar including: basic chords, melodies, strumming patterns, finger picking technique, and bar chords. The course will culminate in an end of the year performance at the May concert, where students will create a guitar ensemble to perform.

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, 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.

771 SONGWRITING 2.5 credits/every other day

This course is intended for the student who has an interest in discovering what makes a hit song and how they are written. It is also a gateway for advanced studies in music theory. Students will review the basic fundamentals of music including sound, harmony, melody, rhythm, timbre, form and growth. By the completion of the course, students will have a portfolio of songs and compositions in a variety of styles. Students will also explore the composition of digital music by using various music technology software including StudioOne, Garageband, Finale, and Noteflight. Students taking this course should have an interest in creative writing, music composition, and collaboration. No formal music training is required. This course fulfills the prerequisite for AP Music Theory. Songwriting can be taken simultaneously or sequentially with Recording and Music Production or as a standalone course. This course is intended for students in grades 9-12.

772 SOUND RECORDING AND PRODUCTION 2.5 credits/every other day

This course is designed for students who have an interest in recording, mixing, mastering, and producing music. Course topics include acoustics, signal pathway, using microphones and audio devices, digital audio workstations, and beat/loop production. Students will use the music technology lab and equipment to work creatively and collaboratively on several projects building technical skills in music technology for recording and live sound reinforcement. Songwriting can be taken simultaneously or sequentially with Songwriting or as a standalone course. This course is intended for students in grades 9-12.

781 PIANO 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.

782 PIANO 2 2.5 credits/every other day

Students who have successfully completed Piano 1 may register for Piano 2.

783 PIANO 3 2.5 credits/every other day

Students who have successfully completed Piano 2 may register for Piano 3.

785 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 grades 10-12.

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 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. The 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 <u>required</u> 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.

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.

798 MUSIC IN FILM AND MULTIMEDIA 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, 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.

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, wiffle 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 and written 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.

810 PE: STRENGTH AND CONDITIONING 2.5 credits/every other day

This elective course for grade 11-12 students will provide students with an understanding of how to 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, powerlifting, 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.

811 PE: 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 Cardiopulmonary 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 for 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. Students in this course are expected to be active participants, efficient communicators, and effective collaborators.

812 PE: 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

813 PE: 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 well-being. Units of study may include the following lifetime fitness activities: yoga, Pilates, mobility exercises, strength training, 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.

814 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 grades 10-12.