



*Curriculum Summary*  
*and*  
*Graduation Requirements*  
*2009-2010*

**Spring Street International School**  
**Curriculum Summary**

The information included in this Summary is intended to give you an overview of the courses offered at Spring Street International School. A detailed course syllabus can be provided by each teacher for specific courses.

## High School

In order to graduate from Spring Street International School, students must earn the required number of credits in each area during their high school years. In some cases, these required classes may be taken during the 8th grade year. In rare cases, a 7th grade student may take the Algebra I class for HS credit. One credit is equivalent to a year-long course.

<b>Subject Area</b>	<b>Credits Required (minimum)</b>
English	4 (one class must be taken each year at the High School level)
Mathematics	3 or 4 (must include Algebra I, Geometry, and Algebra II. Precalculus is strongly recommended for college-bound students)
Science	3 or 4 <sup>1</sup> (2 of which must be a laboratory science).
Social Studies	4 (must include US History or Government, World History or Geography, and ½ credit in Washington State History; WA History requirement is normally completed in middle school.
Foreign Language	3 (at least 2 of which must be in the same language)
Physical Education	2
The Arts	1
Occupational Education	1
Electives	1
Senior Project:	No credit, but must be approved and completed
Total required	24 (minimum)

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<sup>1</sup> Students must complete a minimum of 7 credits in the Mathematics and Science categories. At least 3 credits must be in one of the two categories (e.g. 3 math/4 science classes)

## Middle School

Middle School Students follow the programs outlined below:

### Grade 6, 7, 8:

- Humanities:
  - Language Arts- separated by skill level into Language Arts I and Language Arts II
  - History- students will participate in a three year rotation of Ancient Civilizations, Western Civilizations, and US History and Washington State History
- Mathematics:
  - 6, Pre-Algebra, Algebra
- Science
- Art or Music
- PE
- Latin/Beginning Spanish/ Spanish I

## Experiential Education

As part of Spring Street’s philosophy, students are able to participate in local, national and international travel study trips. Students are evaluated during their trips in Middle School to determine eligibility for the international trips at the High School level. The following gives the typical sequence of travel study trips:

Grade Level	Destination and Focus	Duration
6 <sup>th</sup> -7 <sup>th</sup> grades	Outdoor Ed. Challenges	2 1-week expeditions: fall & spring
6 <sup>th</sup> -8 <sup>th</sup> grades	Ashland Oregon Shakespeare	1-week: winter
8 <sup>th</sup> grade	Outdoor Ed. Challenges	1-week expedition: fall
	Washington DC American History	10 days (spring)
9 <sup>th</sup> -10 <sup>th</sup> grades	Outdoor Ed. Challenges	1-week expedition: fall
	Central American Cultural & Language Immersion and Community Service	3-week expedition: winter
11 <sup>th</sup> -12 <sup>th</sup> grades	South and Southeast Asia Research, Studies & Service <sup>2</sup>	6-week expedition: winter
Additional option for high school International Students	Southwest US Cultural Immersion and Service	3-week expedition: winter

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<sup>2</sup> High Schoolers have the option of developing a 3-week internship.

## Course Descriptions

### Music & Arts Program - Magda Balise, Grisha Krivchenia

#### **Art (Grade 6 – 12) Magda**

A series of semester-long courses in pencils, charcoals, acrylics, oils, plein-aire, figure drawing, paper-making, ceramic sculpture and wheel, and both digital and darkroom photography are offered from 1:00-4:15pm Monday-Friday for beginning – advanced art students. The exact sequence of courses will be determined based upon student interest.

#### **General Music (Grade 6 – 9) Grisha**

Students cultivate basic competency on a few common instruments and practice exercises that develop their ability to perceive rhythm, pitch, texture, and harmony. This class includes multiple projects going on simultaneously, to accommodate the wide range of musical experience and ability. As such, it is appropriate for both advanced young musicians and complete beginners.

**Recording Technology (Grade 6-9, 9-12):** Two-week seminars offered throughout the year.

Students learn the basics of recording, mixing, and editing music. Once they have a basic understanding of our Pro-Tools/Mac studio, they carry the privilege (and responsibility) of using the facilities for their own creative projects.

**Music Composition and Theory (Grade 10-12)** Text: The Practice of Harmony by Peter Spencer

Students develop the ability to communicate their original musical ideas to others using musical notation, live performance, and recording. Students choose the direction of the course, but it is expected to include the following topics: notation conventions, writing for solo instruments, writing for small ensembles, Sibelius software, creating electronic music, and formal analysis of notated music.

#### **The Creative Process (Grade 11-12)**

*Taught in alternating years, next offered during the 2010-2011 school year.*

The Creative Process is an interdisciplinary course in divergent thinking. Students will survey the psychology of creativity, artists' methods, and problem-solving techniques. Our inquiries will be practical and experiential -- as they encounter new concepts, students will use them to inform their own creative work. Projects may include improvisation, invention, writing, musical composition, visual art, and film. Finally, students will learn to offer and receive constructive criticism, a process which will help them to communicate more effectively with their chosen media.

#### **Music Pedagogy Program (Grade 6 - 12)**

Students who have demonstrated exceptional competency on their instrument and leadership in musical endeavors will have the opportunity to teach to other students. A faculty adviser guides and supervises the lessons.

**Private Music Instruction:** Piano, Composition, Guitar, Bass, Percussion.

## **Bands and Chamber Music (Grades 6 -12)**

The recording studio is open for student rehearsals after school on Monday, Wednesday, Thursday, and Friday. Weekend and evening times can also be arranged on the studio calendar. A faculty coach/mentor can be present by appointment.

## **Foreign Languages - Peg Hope, Olga Donoro**

### **Latin I (Grades 6-8) Peg Hope**

**Texts:** David J. Florian, *Phenomenon of Language, Tabula Latina*, Prentice Hall; William E. Linney, *Getting Started with Latin*, Armfield Academic Press

This introduction to Latin language and culture for middle school students supports their study of language arts in English, while establishing a foundation for language learning in upper grades. The study of Latin helps to reinforce understanding of English grammar and acquisition of new English vocabulary words. Students learn approximately 200 Latin words; basic rules of grammar tied to nouns (gender, case), adjectives (placement, agreement), and verbs (conjugations); Latin derivatives for English words; and the translation of short selections from Latin to English, and English to Latin. Aspects of Roman culture are also studied.

Assessments:

- Daily reading assignments – comprehension check in class
- Quizzes and semester exams
- Workbook assignments
- Special projects and presentations

### **Latin 2 not offered in 2009-10**

**Text:** *Phenomenon of Language, Tabula Latina; Ecce Romani*, Longman

This class is for returning 7th or 8th graders who have already completed Latin 1. New vocabulary words and rules of grammar are addressed in a series of stories with Roman teenagers as main characters. Translations provide a more significant proportion of daily assignments. English derivatives are more thoroughly analyzed. Roman culture is studied in greater depth.

Assessments:

- Daily reading assignments – comprehension check in class
- Quizzes and semester exams
- Workbook assignments
- Special projects and presentations

### **Spanish I (Grade 8) Olga M. Doñoro-Rodríguez**

**Texts:** *Club Prisma A1, Edinumen, S de Safari, Edinumen.*

Spanish 1 is an introductory course in Spanish: language skills are emphasized through basic listening, speaking, reading and writing. Emphasis is placed on practical vocabulary and the oral use of the language, along with proper use of grammar and cultural information. In addition, the student will develop cultural awareness and become prepared to encounter real life situations outside of the classroom through discussions of cultural customs and behavior and by reading authentic materials written in Spanish.

Assessments:

- Participation and in-class assignments and audios.
- Quizzes/ Tests
- Projects/ Presentations
- Homework

### **Spanish II (Grade 9) Olga M. Doñoro-Rodríguez**

**Texts:** *Club Prisma A2*, Edinumen; *El Paraguas Blanco*, Edinumen.

This course is designed to introduce students to the Spanish-speaking World and its culture. To help students develop an appreciation of the cultures of Spanish-speaking countries, integrating culture and language in a way that encourages curiosity, stimulating analysis, and teaching students to hypothesize. The successful student will develop a novice-mid to intermediate-low proficiency in the language by engaging in a variety of communicative activities that focus on developing reading, writing, speaking and listening skills in the foreign language. In addition, the student will develop cultural awareness and become prepared to encounter real life situations outside of the classroom through discussions of cultural customs and behavior and by reading authentic materials written in Spanish.

Assessments:

- Participation and in-class assignments and audios
- Quizzes/ Tests
- Projects/ Presentations
- Homework

### **Spanish III (Grade 10) Olga M. Doñoro-Rodríguez**

**Texts:** *Club Prisma A2*, Edinumen; *El Secreto de Diana*, Edinumen.

This course integrates a systemic review of first and second year concepts with the new third year materials. Continued emphasis on communicative skills is stressed. Integration of cultural information pertaining to the designated topics of this course occurs in skill areas where appropriate. The aim of Spanish 3 is to assure that the student can read, write and speak this language at an intermediate level. The study of grammar is further advanced and completed. Much emphasis is placed upon the designation of the different tenses of the language, so that they not only feel comfortable dealing with Spanish, but that they also know, grammatically, how it works.

Assessments:

- Participation and in-class assignments and audios
- Quizzes/ Tests

- Projects/Presentations
- Homework

### **Spanish IV (Grade 10) Olga M. Doñoro-Rodríguez**

**Texts:** *Club Prisma A2/B1*, Edinumen; *Azahar*, Edinumen.

In this course students will increase oral and written fluency in the target language through a more intense study of grammar, literature, culture, and history. Students will participate in frequent conversation groups, write compositions, read literary works, and be able to discuss and/ or summarize in the language. The successful student will develop an intermediate-mid to an intermediate-high proficiency in the language by engaging in a variety of communicative activities that focus on developing reading, writing, speaking and listening skills in the foreign language. In addition, the student will develop cultural awareness of famous Hispanic artists and authors by examining their works and reading short stories daily written in Spanish.

Assessments:

- Participation and in-class assignments and audios
- Quizzes/ Tests
- Projects/Presentations
- Homework

### **Language Arts & English Program -Merideth Block, Heather June, Catherine Barnhart, Jen O'Prussack, Jerry Riley**

#### **Language Arts I (Grades 6, 7, 8) Merideth Block**

Language Arts I for incoming students focuses on the writing process. Writing takes place both in class and outside of class time. The complete writing process is emphasized: pre-writing, creating drafts, revising, editing, and presentation. As writers, we will internalize the writing process by using it daily. Assignments include simple essays, short fiction, and poetry. Students frequently work in small groups during the pre-writing phase and for presentations. As part of the writing process students will complete supplementary exercises on grammar, spelling, vocabulary-building, punctuation, and writing styles. Also, a dictionary of new vocabulary will travel from class to class as we build and use the new words we learn throughout the day.

Students will also become confident readers of increasingly complex texts. Students will be expected to read over six approved novels of their choice over the course of the year and to log and discuss those books. We will focus on the development of plot and the structure of story telling, be it novel or short story. We will also start the exploration of informational texts as a means to gather information. Incoming students will focus on general fiction and metered poetry. Literature read for class provides a springboard for discussion, critical thinking, and writing. Vocabulary is drawn from readings. Documentary and feature films connected with the readings and with the course theme are shown. A few of the texts we will be working with this year:

- *English 3200, A Programmed Course in Grammar and Usage*,
- *The 6+1 Writing Traits*
- *Selections from The Ode Less Traveled by Stephen Fry*
- *Gulliver's Travels by Jonathin Swift*

- *Twelfth Night and Hamlet* by Shakespeare
- *Mortal Engines* by Phillip Reeve
- *Various Essays, short stories, folk tales, fairy tales, and myths*

In the classroom, small-group work enables students to develop team-building skills, in keeping with the focus of the course. We also work on strategies for group discussion.

Assessments:

- Daily reading assignments – comprehension checks
- Daily writing assignments
- Class participation (including attendance)
- Peer Editing
- Tests are rare

### **Language Arts I (Grades 7-8) Merideth Block**

Language Arts II for returning students continues to focus on the writing process. Students will incorporate the complete writing process, (brainstorming, outlining, peer editing, and revising) in a variety of essays (descriptive, analytical, persuasive, and personal). Writing takes place both in class and outside of class time. Assignments include essays, short stories, and poetry. Students frequently work in small groups during the pre-writing phases and for presentations. As writers, we will enter our essays, short stories, and poetry in writing contests. We will continue to focus on grammar and mechanics. Also, our dictionaries of new vocabulary will continue to travel from class to class as we build and use the new words we learn throughout the day.

Students will also become confident readers of increasingly complex texts. Students will be expected to read over six novels of different and specific genres (mystery, biography and autobiography, non-fiction) over the course of the year and to log and discuss those books. We will incorporate plot and the structure of story telling into the larger concerns of literary devices. Literature read for class provides a springboard for discussion, critical thinking, and writing. Vocabulary is drawn from readings. Documentary and feature films connected with the readings and with the course theme are shown. We will also begin the process of learning how to read research. Students will read and scan metered poetry outside of the sonnet.

A few of the texts we will be working with this year:

- *English 3200, A Programmed Course in Grammar and Usage,*
- *The 6+1 Writing Traits*
- Selections from *The Ode Less Traveled* by Stephen Fry
- *Gulliver's Travels* by Jonathan Swift
- *Twelfth Night and Hamlet* by Shakespeare
- *The Romance of Tristan and Iseult* by Joseph Bedier
- Short stories, folk tales, poetry, and essays

Assessments:

- Daily reading assignments – comprehension checks
- Daily writing assignments

- Class participation (including attendance)
- Peer Editing
- Tests are rare

### **English 9: World Literature Heather June:**

Texts and major works include but are not limited to:

- *World Literature* (3rd Edition, Holt, Rinehart, and Winston)
- *English 3200: A Programmed Course In Grammar and Usage* (4th College Edition), by Joseph C. Blumenthal
- *Lord of the Flies*, by William Golding
- *Siddhartha*, by Herman Hesse
- *Tales of the Cairds*, by Anne Cameron
- *Romeo & Juliet*, by William Shakespeare

World Literature surveys stories from pre-history to the present, and literature from many different cultures. We will examine the purpose of story, its importance to society, and what it reveals about human nature. What stories do we tell ourselves, and why? How is literature shaped by landscape, history, and culture? In turn, how does literature impact culture, history, and landscape?

The writing component introduces students to more complex rhetorical strategies and builds up high school level writing skills. Initially, we will focus on summary, exposition, and narration. As the course progresses, we practice sophisticated comparison and contrast, interpretation, and critical analysis. Exercises in pre-writing, revision, and editing proficiency abound. Students keep a reading-response journal and strengthen their ability to reflect on their own process.

Exercises in vocabulary, fluency, grammar, spelling, punctuation, writing style, and fear-melting comedy are incorporated on a daily basis.

Assessments:

- Daily classwork/homework assignments
- Writing assignments
- Class participation (including attendance)
- Quizzes (spelling, vocabulary, concepts and content)
- In-class, timed essays and formal essays
- Short presentations

### **English 10: American Literature Heather June**

Texts and major works include (but are not limited to):

- *Catcher in the Rye*, by J.D. Salinger
- *The House on Mango Street*, by Sandra Cisneros
- *To Kill A Mockingbird*, by Harper Lee
- *The Great Gatsby*, by F. Scott Fitzgerald
- *Bless Me, Ultima*, by Rudolfo Anaya
- *Their Eyes Were Watching God*, by Zora Neale Hurston
- *For Whom The Bell Tolls*, Ernest Hemingway

- Various short stories by: Hemingway, Faulkner, Parker, Welty, O'Connor, Twain, etc.
- Poetry by: Whitman, Oliver, Dickinson, Longfellow, etc.

This course promotes in depth study of major works of American Literature. Analysis focuses both on the literature itself and the historical context in which it was written. We will tackle questions such as, what qualities make a work quintessentially *American*? How has our history shaped our literature, and vice-versa? How does the literature of our culture differ from that of other cultures? What does this difference reflect about our culture? What makes literature universal?

The writing component builds on students' skill in summary and exposition in order to develop strength in narration, comparison and contrast, analysis, interpretation, synthesis, reflection, and evaluation. This course provides opportunity to refine pre-writing, revision, and editing proficiency.

Exercises in vocabulary, annunciation, grammar, spelling, punctuation, writing style, and resistance-melting comedy are incorporated on a daily basis.

Assessments:

- Daily classwork/homework assignments in reading and writing
- Writing assignments
- Class participation (including attendance)
- Quizzes (spelling, literary terms, vocabulary, concepts and content)
- In-class timed essays; formal essays
- Short presentations

### **English 11/12 A: Interpretation of Literature & Writing Creatively Heather June**

Texts and major works include (but are not limited to):

- *English Literature: Chronological Approach* (3rd Edition, McGraw-Hill Series)
- *One Flew Over the Cuckoo's Nest*, by Ken Kesey
- *The Dharma Bums*, by Jack Kerouac
- *Anthem*, by Ayn Rand
- *Lady Chatterly's Lover*, D.H. Lawrence
- *The Shadow of the Wind*, Carlos Ruiz Zafon
- *Hamlet*, by William Shakespeare
- *The Bluest Eye*, Toni Morrison
- Additional short stories, poetry, and essays

Designed primarily to enhance writing skills and increase enjoyment of language, this course requires rigorous practice expressing comprehension, interpretation, analysis, and evaluation of literature. Genres include novels, short stories, essays, poetry, oral literature, and historical texts. Students refine close reading skills through study of metaphor, theme, imagery, plot, conflict, character, setting, rhetorical devices, poetic form and cultural context. Students practice a good deal of creative writing in this course, in order to increase understanding of how literature creates its effects.

This class builds and refines skill in oral presentation, group discussion, self-reflection, and the creation of both original works and critical essays about literature.

Incorporated on a daily basis are strength building exercises in writing style, grammar, spelling,

punctuation, vocabulary building, meta-cognition, and resistance-melting comedy. Learning loves laughter.

Assessments:

- Daily classwork/homework assignments in reading and writing
- Writing assignments
- Class participation (including attendance)
- Quizzes (spelling, literary terms, vocabulary, concepts and content)
- In-class timed essays; formal essays
- Short presentations

### **English 11/12B-Honors English: Literature and the Art of Writing Heather June**

Major works include but are not limited to:

- *Krik? Krak!* by Edwidge Danticat
- *One Flew Over the Cuckoo's Nest*, by Ken Kesey
- *Lolita*, by Vladimir Nabokov
- *Out Stealing Horses*, by Per Petterson
- *Anthem*, by Ayn Rand
- *The Waves*, by Virginia Woolf
- *Five Quarters of the Orange*, by Joanne Harris
- *The Dharma Bums*, by Jack Kerouac
- *Winesburg, Ohio*, by Sherwood Anderson
- *Hamlet*, by William Shakespeare
- *Jude the Obscure*, by Thomas Hardy
- *American Gods*, by Neil Gaiman
- Additional short stories and poetry

Honors English provides the experience of university-level learning. This course covers novels, poetry, short stories, plays, and essays from the seventeenth century to the present. Students will improve their ability to analytically evaluate texts and use rhetorical strategies in order to write with heightened insight and control. Both the reading and the writing components of this course are mighty. In addition to analytical and persuasive essays, students will write fiction, poetry, and creative non-fiction. Creative writing constitutes roughly half of the work students will do in Honors English. The class encourages philosophical thinking about literature, society, and human nature. Students examine the purpose and value of story in relation to the evolution and survival of humanity. Warning: This class is highly stimulating and demanding!

Students write a myriad of timed essays, keep a reading journal, practice creative writing exercises, pre-write, revise, and reflect upon their own thinking and writing.

To develop oral skills, students participate in discussion as well as deliver formal and informal timed presentations throughout the year. These oral presentations vary from reading poetry aloud in class to power point presentations.

Exercises in grammar, spelling, punctuation, vocabulary building, and writing with flair are incorporated on a daily basis.

Assessments:

- Daily classwork/homework assignments in reading and writing

- Writing assignments
- Class participation (including attendance)
- Quizzes (spelling, literary terms, vocabulary, concepts and content)
- In-class timed essays; formal essays; works of poetry, fiction, and/or drama
- Presentations

## **English as a Second Language**

The ESL program at SSIS provides international students with a whole language learning experience in English and mainstreams them into the college preparatory curriculum. First year ESL students with TOEFL scores lower than 550 take self-standing ESL classes to develop skills in speaking, listening, reading and writing. These classes incorporate content in literature and social studies in order to prepare students to join college preparatory courses. Advanced students take an ESL tutorial designed to provide academic support for their college preparatory courses. All ESL students take regular courses in social studies, math, and science according to their subject-area level and ability. ESL courses emphasize individualized instruction as well as group activities.

### **ESL IA: English Language and Literature Catherine Barnhart:**

Major works include but are not limited to:

- Grammar and writing materials selected according to assessments given during the first two weeks of school
- Prentice Hall Graded Reader: *Huckleberry Finn*
- *House on Mango Street*
- *Three Cups of Tea (Young Readers edition)*
- *Hoot*
- Selected short fiction and essays

The purpose of this class is to prepare students for mainstream English classes. Vocabulary and reading comprehension are developed by teaching learning strategies, as well as reading English literature. For writing, students learn to create standard formats for descriptive, expository, persuasive, research, and creative essays, in addition to practicing grammar and editing skills. Listening and speaking skills are enhanced through in-class discussion, oral presentations, and pronunciation practice.

### **ESL IB: Social Studies Jen O'Prussack**

The purpose of this class is to provide a foundation for ESL students in US History. Particular emphasis is placed on understanding the US government system: Congress, Supreme Court, Presidency, US Constitution, and Bill of Rights.

### **ESL II: Academic Support Catherine Barnhart**

The purpose of this class is aid students in their integration into the school environment. The class focuses on enhancing comprehension of their mainstream classes, as well as preparing them for standardized tests, experiential education trips, and other activities that they will encounter during their time at school. SAT and TOEFL test preparation is included in the class, in addition to subject-area lectures, test review sessions, and discussions about American culture and customs.

## **Speech and Debate (Grades 9-10) Jerry Riley, Merideth Block**

Major works include but are not limited to:

- Robert's Rules of Order
- *American Heritage Book of Great American Speeches for Young People* edited by Suzanne McIntire
- *Cicero* by Anthony Everett

In this class students will learn and practice the art of rhetoric. They will focus on creating and imparting strong arguments and discussion points to support their opinions. Students will also become practiced orators, learning how to speak so as to engage a room with their words. One practical application will be the use of speech and debate in student governance. Students will also be encouraged to use the skills learned in class to support the deliverance of information in other classes.

## **Mathematics Program- Del Guenther, Jennifer O'Prussack, Louis O'Prussack, Blake Hough**

### **Middle School Mathematics (Grades 6-8) Del Guenther**

**Text:** Prentice Hall, *Mathematics, PreAlgebra, 2004 edition*

This class focuses on reviewing, reinforcing and mastering the math, logic and reasoning skills necessary to succeed in the subsequent Algebra I course.

Major topics include:

- Adding, subtracting, multiplying, dividing decimals, integers, fractions, mixed numbers
- Exponents, scientific notation
- Ratios, rates, proportions, percents
- Solving inequalities and equations
- Elements of Geometry (lines, planes, angles, polygons, circles, three-dimensional figures, the Pythagorean Theorem)
- Graphs (in the coordinate plane) and tables
- Analyzing data (spreadsheets, tables)
- Probability

Assessments:

- Daily homework assignments
- Quizzes (checking concept mastery)
- Tests (end of each concept area; cumulative)
- Special projects

### **Algebra I (Grades 8-10) Del Guenther**

**Text: Prentice Hall, Algebra 1 2004 edition**

This introductory algebra course is taken by students who have successfully passed a comprehensive pre-algebra test. It is also the first course in the college preparatory math sequence.

Major topics include:

- The language of algebra
- Solving equations, inequalities, and proportions
- Graphs and functions
- Linear equations
- Systems of linear equations and inequalities
- Exponents and exponential functions
- Polynomials and factoring
- Quadratic equations and functions

Assessments:

- Daily homework assignments
- Quizzes
- Chapter tests, semester exams
- Special projects and presentations

**Geometry (Grades 9-10) Blake Hough**

**Text:** Key Curriculum Press, *Discovering Geometry: An Investigative Approach*

Geometry is taught as either the second or third course in the college preparatory math sequence. Focus is on geometry as a way of thinking and seeing the world, on developing an understanding of the language of geometry, and on using the tools of geometry. Curriculum requires students to use inductive reasoning to formulate conjectures that are then tested through a wide variety of calculations on paper and the computer. Students work individually and in cooperative groups to do investigations, form and test conjectures, solve problems, and create projects and presentations. Use of graphing calculator and computer technology is incorporated into the coursework.

Major topics include:

- Geometric art
- Inductive reasoning
- Terms and definitions
- Line and angle relationships and properties
- Triangle relationships and properties (congruence, Pythagorean Theorem)
- Polygon relationships and properties; area
- Geometric constructions
- Space geometry; volume
- Similarity; ratio and proportion

Assessments:

- Class participation
- Daily homework assignments
- Exercise sets
- Student-generated glossary
- Student-generated conjectures list
- Constructions
- Quizzes, chapter tests, semester exams
- Special projects and presentations
- Extra credit work for specific projects is offered

### **Mathematical Analysis (Grades 10-12) Peg Hope**

**Text:** Prentice Hall, *Thinking Mathematically*

This challenging math survey class is offered to meet the needs of upperclassmen forgoing or delaying moving on to PreCalculus/Calculus after completing Algebra I, plus Geometry and/or Algebra II. Topics covered, listed below, are designed to help students “solve authentic problems that apply to their lives; understand and reason with quantitative issues and mathematical ideas they are likely to encounter in college, career, and life; and develop problem-solving and critical thinking skills.” The text is one typically used for liberal arts majors in college.

Topics include:

- Set theory
- Logic
- Number theory
- Algebra
- Geometry
- Measurement
- Counting Methods and Probability theory
- Consumer Math and Financial Management
- Statistics

Assessments:

- Daily homework assignments
- Quizzes, chapter tests, semester exams
- Special projects and presentations

### **Algebra 2 (Grades 10-12) Jen O'Prussack**

**Text:** Prentice-Hall, *Algebra 2*

Algebra 2 is designed to meet the diverse needs of students. For some, it is the last math class they must take at SSIS. For others, it is a foundation course for more advanced math classes at SSIS and beyond. In order to meet these diverse needs, the course is self-paced, with students selecting the path that best meets their needs. There is an Honors option for this class.

Topics include:

- Linear Equations
- Systems of Equations
- Quadratic Equations
- Matrices
- Polynomial Functions
- Radicals
- Exponential and Log Functions
- Patterns and Sequences
- Spreadsheet/ Computer Techniques
- Robotics
- Probability and Statistics

### **Pre-Calculus (Grades 10-12) Louis O'Prussack**

**Text:** Precalculus with Trigonometry, Paul A. Foerster

Pre-Calculus is offered to tenth through twelfth graders who have successfully completed an intermediate algebra course. Pre-Calculus emphasizes extending the concepts of algebra, learning trigonometry, and applying these to real-world problems. Special emphasis is placed on examining the images of functions geometrically. Additionally, students are encouraged to help each other master a topic and not depend solely on help from the instructor. While graphing calculators are used extensively in this study, students are limited to the use of only paper and pencil on half of tests and exams.

Topics include:

- Transformations of functions
- Exponential and logarithmic functions
- Trigonometric functions
- Spherical trigonometry
- Matrices
- Proving trigonometric identities
- Probability
- Arithmetic, geometric, and infinite sequences and series

Assessments:

- Daily Problem Sets
- Quizzes
- Chapter Tests
- Final exams
- Projects
- Class Participation

### **Calculus (Grades 11-12) Levels: AP AB, AP BC Louis O'Prussack**

**Text:** Calculus, Paul A. Foerster

Calculus is offered to eleventh and twelfth graders who have successfully completed Pre-Calculus. Calculus is taught in AP format with non-AP format as an option. The course

emphasizes both learning the basic mindset of the calculus, and applying that mindset to mathematical problems, with a special emphasis on developing an understanding of the fundamentals as well as the larger concepts so students ultimately memorize a little by understanding a lot. This particular text does a marvelous job of introducing topics with three approaches: Numerical, Algebraic, and Geometric. Class time is used to discuss the homework, explore proofs and new problems, and introduce new topics. While graphing calculators are used extensively in the study of these functions, students must be able to solve 50% of the problems on exams with only paper and pencil. Students are assessed by their performance on tests, old A.P. exams, and work in class.

Topics include:

- Pre-Calculus Review
- Limits and Continuity
- Derivatives
- Applications of Derivatives
- Definite Integrals
- Differential Equations and Mathematical Modeling
- Applications of Definite Integrals
- Slope Fields
- Review for the AP exam

Assessments:

- Daily Problem Sets
- Quizzes
- Chapter Tests
- Final exams
- Projects
- Class Participation

### **Physical Education Program- Del. Guenther, Heather June, Advisors**

#### **Middle School Physical Education (Grades 6-8) Del Guenther**

The goals of the PE program are building and maintaining healthy levels of fitness, developing an appreciation of the importance of good sportsmanship, enhancing leadership, and developing cooperative and risk taking qualities. Students grow through developmentally appropriate tasks and challenges.

Units that may be covered include:

- Basketball
- Softball
- Lawn hockey
- Team Handball
- Yoga
- Soccer
- Bowling
- Volleyball
- Lacrosse
- Bocce
- Jogging

- Walking
- Cycling

Assessments:

- Willingness to set goals and improve
- Sportsmanship
- Participation

### **High School Physical Education Supervisor: Heather June**

HS PE is offered as a supervised, independent study activity. All students must complete the equivalent of two credits (300 hours of participation) during their high school years. Advisors meet with each advisee to assist in planning his or her program for the year and setting observable goals. Students may engage in their planned activities during a scheduled class period or during non-school time. Advisees meet with the advisor throughout the year to review and monitor progress.

## **Science Program-Del Guenther, Chuck Schietinger, Blake Hough**

### **Middle School Science (Grades 6-8) Del Guenther**

In Middle School science, the focus is on science as a process. Students will learn scientific journaling, designing inquiry experiments, control of variables, constructing data tables and graphs, interpreting data that they generate and writing conclusions. Students will be engaged in several real-world research projects. It is the goal of middle school science that students gain an understanding of the scientific method and how science can be a dynamic discipline for implementing change.

Middle school science is set up on a three year rotation. 2009-2010 will examine science through the Earth and Space sciences. The emphasis will be on earthquakes and volcanoes-how they are formed, predictability and what can be done in this locality to prepare for their activity. We will also look at the planets in our solar system from a historical as well as a future view. 2010-2011 will have a Physical Science emphasis and 2011-2012 will focus on the Life Science.

Assessments:

- Science Journals
- Written exams/quizzes
- Class Presentations/projects
- Homework
- Participation

### **Physics 9 Chuck Schietinger**

**Text:** *Conceptual Physics*, by Paul G. Hewitt, Copyright 2008, Addison Wesley Longman,

This is an introductory but intense high school ninth grade physics course. It is designed to be the student's first physics class. The course will cover mechanics, waves, thermodynamics, electricity & magnetism, and light. The class will introduce many concepts of physics and science through a range of student and teacher run activities. Experiments, demonstrations, lectures and student work will reinforce the concepts. Math will be used to help clarify concepts and improve student math and thinking skills.

Broad Goals:

- Explore the scientific method
- Conduct physics experiments
- Present scientific findings by writing, oral presentation, and graphically

Areas of focus:

- Measurement and Problem-Solving
- Mechanics
- Wave Motion
- Thermodynamics
- Electricity/Magnetism
- Light/Optics

Assessments:

- Class Participation
- Tests/Quizzes
- Labs/Lab Reports/Projects
- Projects
- Homework

### **Physics 12 Chuck Schietinger**

**Text:** *Principles of Physics*, Kinetic Books, 2008, also ([www.kineticbooks.com](http://www.kineticbooks.com))

This is an advanced, upper level, high school physics course. It is designed to use the student's math and science skills to investigate topics in physics. The course covers mechanics, waves, thermodynamics, electricity & magnetism, and light. Students choose various physics areas to study in-depth rather than breadth. The class is rich in experimentation and discussion of the scientific method. Experiments, demonstrations, lectures and student work reinforce the concepts. Math is used extensively to build problem solving skills.

Broad Goals:

- Deep understanding of scientific method
- Conduct excellent physics experiments
- Present scientific findings by writing, oral presentation, and graphically
- Excel literate

Areas of Focus

- Mechanics
- Wave Motion
- Thermodynamics
- Electricity/Magnetism
- Light/Optics
- Quantum/Submicroscopic Physics

Assessments:

- Class Participation
- Tests/Quizzes
- Labs/Lab Reports/Projects
- Projects
- Homework

**Biotechnology (Grade 12)**– *Taught in alternating years: Next offered in 2009*

**Texts:**

- *DNA; the Awesome Skill*, 2nd Edition, 2001, Harcourt Academic Press :
- *Principles of Biochemistry*, Lehninger
- *Molecular Biology of the Gene*, Watson
- *Genome*, Ridley

The Biotechnology Revolution is well under way providing goods and services for agriculture, medicine, and many other industries. This multidisciplinary course introduces students to the biotech production process with a focus on scientific methodology. The emphasis will be on understanding and utilizing basic principles of cellular and molecular biology to design, execute, and analyze hands-on experiments that include recombinant DNA technology, microbial protein production, immunobiology, and computational bioinformatics. The ethical implications of this contemporary science are also considered.

Areas of Focus:

- Introduction to Biotechnology
- DNA Science
- Protein Science
- Microbiology
- Cell Biology
- Genetic Regulation
- Immunology
- Bioinformatics
- Forensics
- Ethics

Assessments:

- Tests
- Lab Notebooks
- Homework
- Class Presentations/Projects

**Chemistry (Grade 10) Chuck Schietinger**

**Text:** Phillips, Strozak, Wistrom, Chemistry: Concepts and Applications, McGraw-Hill/Glencoe, 2009

Chemistry is an introduction to the properties of matter as they relate to its structure and composition. The course is designed as the last course in chemistry that a student may take, but it also a foundational course for the study of other sciences. The course constantly strives to

connect the student's experiences in the macroscopic world with the submicroscopic world of atoms, molecules and ions where chemistry occurs. Numerous experiments will help the students learn both scientific method and chemistry.

Areas of Focus:

- Essential chemistry language
- Brief History of Discovery / Atomic Theory
- Atomic Structure
- Macroscopic Compounds
- Compound Formation and Bonding
- Chemical Reactions and Stoichiometry
- Acids and Bases
- Electron Transfer Reactions
- Organic / Biochemistry
- Nuclear Chemistry

Assessments:

- Class Participation
- Exams / quizzes
- Labwork / Reports / Projects
- Homework

### **Biology (Grade 11) Blake Hough**

**Text:** Audesirk, Audesirk, Byers, Biology: Life on Earth, 7th Edition, Prentice Hall, 2005

Biology is a laboratory course that covers the study of living things. The course will examine the study of life through a focus on the five key concepts of cellular biology, genetics, evolution, physiology, and ecology. Emphasis will be on laboratory skills and the scientific method as well as connections to other scientific disciplines including chemistry and physics. Students will explore real world ties to emerging biological issues throughout the course.

Areas of Focus:

- Biological Molecules
- Cell Structure and Function
- Inheritance
- Biotechnology
- Evolution
- Animal Anatomy and Physiology

Assessments:

- Quizzes and Exams
- Lab Reports

- Homework
- Participation
- Class Presentations

## Social Sciences- Ted Hope, Merideth Block, Peg Hope

### **Ancient Western Civilizations (grades 6-8) Merideth Block**

#### **Portions of texts and materials will be taken from:**

- *The Penguin Atlas of Ancient Civilizations* by John Haywood
- *Alexander the Great* by Paul Cartledge
- *The Greek and Roman World* by W.G. Hardy
- *A History of Rome* by Max Cary
- *Islam: A Short History* by Karen Armstrong
- *The Crusades* by Terry Jones
- *How the Irish Saved Civilization* by Thomas Cahill
- *1215* by Danny Danziger

For the 2009-2010 academic year, middle school students study the second section of a three part rotation of history curricula. This year begins with the Hellenistic Period of Greece and continues to the Renaissance. Students are encouraged to develop an awareness of their own culture(s) and a sense of unique individual identity, while surveying aspects of the changes in world politics over a specific time period. We look for those decisions made in the past which still burden us today. We often connect the readings in Language Arts with that which we are studying in History. Students learn to look at the Historical record through the lens of the Traits of a Civilization. Students are expected to complete maps, participate in discussions, and analyze texts and documents. Students also learn effective note taking and journal keeping.

### **World History (Grades 9-10) Peg Hope**

**Text:** Ellis & Esler, *World History*, Prentice Hall

This class surveys world history with a focus on the development of Western Civilization. Specific information and general concepts are emphasized to expand the students' cultural literacy and perspective while developing sequencing, inductive and deductive reasoning skills. Focus is placed on historical antecedents from periods that provide context for understanding issues in the contemporary world. Discussions based on reading and small group work are the principal classroom activities.

Areas of focus (first semester):

- Early Civilizations
- Classical Civilizations
- Regional Civilizations: Asia, Middle East
- Rise of Europe
- Transition to Modern Times

Assessments:

- Written assignments, including worksheets and maps
- Unit tests and semester exam
- Class participation

**Human Geography (Grades 10-12) Levels: AP, Standard Ted Hope - not offered in 2009-10**

**Text:** deBlij, Murphy & Fouberg, *Human Geography; People, Place and Culture*, Wiley Pub. 8<sup>th</sup> edition, 2007

Human Geography is an Advanced Placement course that studies complex interrelationships between lands and peoples. Geographic methods and perspectives are used to analyze spatial patterns of human organization. Lecture, discussion, and occasional group simulations are the principal classroom activities.

Areas of focus:

- Demographics
- Culture
- Political Geography
- Rural Land Use
- Cities and Urbanization
- Development and Industrialization
- Origins and Spread of Industrial Revolution
- Cultures and Resources in a Global World

Assessment:

- An examination (1/3 multiple choice, 2/3 free response) which concludes each major unit of study
- A summative practice AP exam in April at the end of the curriculum
- Three written projects (urban design changes, linguistic distribution analysis, economic development strategies)
- Productivity in small group work

**World Religions (Grades 11-12) Peg Hope next offered in 2010**

**Texts:**

- Fisher, Mary Pat, *Living Religions*, Prentice Hall
- Smith, Houston, *The Illustrated World's Religions*, Harper, San Francisco
- Burke, T. Patrick, *The Major Religions; An Introduction with Texts*, Blackwell;
- Occasional supplementary articles and videos

This introductory course offers a survey of the world's major religious traditions, including those of Indian, Chinese, and Semitic origin. Lectures, video presentations, internet resources, guest speakers, and handouts supplement information covered in the core texts, which include both analytical overviews and selections from primary source texts. Focus is mostly limited to a phenomenological approach to studying primary beliefs and practices of the major religions rather than their historical development. A primary goal is for students to gain an understanding of the spirit of each religion, its worldview, and its role in human life. Although comparisons among religions are inevitable and valuable, a secondary goal is for students to develop an appreciation for what is unique about each religion studied. Students are expected to keep a glossary of vocabulary words from each religious tradition, make a seminar presentation on a topic assigned for in-depth exploration, prepare for and participate in directed discussions in class, and write an analytical research paper on a chosen topic.

Areas of Focus:

Fall term:

- Primal religions: deities/cultural heroes/ancestors/spirits; origin myths; impact of modern world and global religions
- Hinduism: Pre-Vedic; Vedic; Upanishadic; Classical/Devotional
- Jainism
- Buddhism: Theravada; Mahayana (esp. Chinese, Zen, Tibetan)
- Confucianism
- Taoism
- Sikhism
- Islam: Sunni & Shiite; Sufism

Spring term:

- Judaism: Israelite Religion; Rabbinic
- Christianity
- New Religious Movements; cults

**Assessment:**

- Lecture notes
- Student-generated glossary
- Small group discussions; class participation
- Quizzes, unit tests, semester exam
- Seminar presentation
- Analytical research paper

**Theory of Knowledge (Honors) Grades 11-12 Ted Hope** *Prerequisite: at least two Honors or AP classes*

**Text:** van de Lagemaat, *Theory of Knowledge for the IB Diploma*, Cambridge University Press

This class focuses on the question, "How do we know?" The class is interdisciplinary, examining the methods and nature of "knowing" in fields from mathematics to religion. Directed discussion and student presentations are the principal learning activities.

Areas of focus:

- Knowers and knowing
- Ways of knowing
- Areas of knowledge (religion, ethics, mathematics, natural and human sciences, history, the arts)
- Truth and wisdom

Assessments:

- Unit tests
- Response papers
- Participation
- Semester exam
- Major paper

### **Economics (Grades 11-12) Ted Hope**

Texts: O'Sullivan, Sheffrin, & Wiggins, *Economics*; Krugman, *The Return of Depression Economics, and the Crisis of 2008*; occasional supplementary articles

This class provides a survey of our economic system. Economic theory and the historical evolution of American economic power are emphasized to help students acquire an understanding of the challenges and potentials of America's role in the global economy. Directed discussion, lecture, simulations, and seminar presentations are the principal learning activities. Students will be expected to organize three kinds of information:

1. Economic theory; focus of our text
2. American economic history; focus of lectures
3. Economic issues; focus of handouts, our Wall Street Journals, and Krugman's book

Assessment:

- Unit tests
- Response papers
- Final exam
- Class participation
- Stock portfolio performance

### **U.S. Constitution (Grades 10-12) Ted Hope**

Texts: Magleby, O'Brien, Light, Burns, Peltason & Cronin, *Government by the People*; Baum, *The Supreme Court, 9<sup>th</sup> Ed.*

This class examines the Constitution and its role in shaping and reflecting American history. The structure and function of the system created by our constitution is surveyed, emphasizing

the judicial branch. The ongoing pursuit of justice is a central theme. Lecture and discussion will be principal learning activities during first quarter as we develop our understanding of how our constitution has evolved. All students will take a Bar Exam and engage in a confirmation hearing based on core readings and class work. Upon passing these, students are qualified to present and judge cases before our Supreme Court during second quarter. In second semester we will examine constitutional issues that challenge our principles of federalism, separation of powers, and personal liberty.

Assessments:

- Quizzes
- Bar exam and confirmation hearing
  - Case presentation
  - Case judgment
- Final exam

### **Senior Studies (First Semester) Peg Hope**

The purpose of this section of Senior Studies is to help students manage the requirements of the college admissions process. In class, students will work to refine their college lists, to prepare for standardized tests, and to write required essays.

Areas of focus:

- Research about colleges (to determine which are good fits, realistic choices, etc.)
- Vocabulary and test-taking skills
- Time management, especially scheduling (standardized testing and deadlines)
- Writing, focusing on the personal essay

Assessments:

- Vocabulary quizzes
- Homework assignments, including questionnaires, outlines, and essay drafts

Students' grades in Senior Studies do not reflect the quality of their essays. Students are graded on their ability to fulfill assignments promptly and adequately.

### **Senior Studies (Fourth Quarter) Peg Hope**

The purpose of this section of Senior Studies is to familiarize the students with aspects of "life after high school" that will help to prepare them for their next step along their individual paths.

Topics include:

- Resume preparation and employment interviews
- Financial responsibility (banking and credit cards)
- Introduction to a variety of career fields
- Life Skills (interpersonal relations)
- Mechanical and household repairs
- Interacting with bureaucracies (permits, licenses, etc)

### **Inquiry/Directed Independent Study**

If a program is not offered at SSIS that is of particular importance or interest to an individual student, he/she may apply to undertake an Independent Study of that subject. See the Head for details.