



ACADEMY *of*  
NOTRE DAME  
*de* NAMUR

---

INSPIRING YOUNG WOMEN  
SINCE 1856

# **2021-2022 Curriculum Guide**



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## Learning Community Hallmarks

A learning community of the Sisters of Notre Dame de Namur, the Academy of Notre Dame embraces the Notre Dame de Namur Learning Community Hallmarks, which give values-based direction for decisions and activities that express the spirituality and mission of the Sisters of Notre Dame de Namur.

### HALLMARK ONE

We Proclaim by Our Lives Even More Than by Our Words That God Is Good.

### HALLMARK TWO

We Honor the Dignity and Sacredness of Each Person.

### HALLMARK THREE

We Educate for and Act on Behalf of Justice and Peace in the World.

### HALLMARK FOUR

We Commit Ourselves to Community Service.

### HALLMARK FIVE

We Embrace the Gift of Diversity.

### HALLMARK SIX

We Create Community Among Those With Whom We Work and With Those We Serve.

### HALLMARK SEVEN

We Develop Holistic Learning Communities Which Educate for Life.

#### SUPPORTING STATEMENTS FOR HALLMARK SEVEN:

1. We design and implement academically excellent educational experiences.
2. We create curricular/co-curricular interactions that facilitate student-centered learning/teaching environments.
3. We actively support the intellectual, emotional, spiritual, psychological and social growth of the members of our learning community.
4. We provide an environment and appropriate training for leadership development.
5. We foster educational activities that develop self-directed learners capable of self-evaluation, critical thinking, and creative responses to life situations.
6. We work with and within a risk-taking and flexible organization which:
  - exhibits compassionate and socially responsible actions in response to issues of justice
  - bases its curriculum on cross-cultural perspectives and understandings
  - respects and explores the unique and complementary roles and gifts of women and men in society

## Academic Program & Policy

Each upper school student must earn a minimum of 24 credits in major subjects at Notre Dame in order to graduate, as well as meet all the additional credit or course requirements outlined below. Six major subjects must be taken each year. Eleventh and twelfth grade students are strongly encouraged to take electives each year.

4 credits in Religious Studies

4 credits in English

3 credits in Mathematics (Algebra I, Algebra II, Geometry and Trigonometry are required.)

3 credits in Science (Physics, Chemistry and Biology are required.)

3 credits in World Languages (3 consecutive years)

3 credits in Social Studies (World History and U.S. History are required.)

4 credits in Electives

0.5 credit in Arts

2 years of Physical Education

2 semesters of Health

4 semesters of Seminar

Intro to Visual and Performing Arts

Successful completion of Senior Capstone Project

The required 0.5 credit in the Arts may be earned in grade 10, 11, or 12. All ninth grade students are required to take Intro to Visual and Performing Arts unless they participate in Upper School Ensemble, submit a portfolio and are selected for Arts I or audition and are selected into Dance Company or Women's Chorale.

In addition to academic requirements, a minimum of 60 credits during upper school is required for graduation. These hours should be completed by Spring Break of senior year.

Should a student fail a class during the academic year, the course will remain listed on the transcript and calculated into the cumulative GPA as 0.0 credits. The student will be required to make up the failed class over the summer through an Academy-approved course and sit for a departmental exam. The successful completion of the summer course and passing departmental exam grade are both required. The non-Academy course will be included on the student's transcript; the grade for that course will be a weighted average with 80% being the grade awarded, and 20% the result on the final. For example, if a student gets an 80 for the course but a 60 on the final, their grade would show as a 76 [  $80(.8) + 60(.2)$  ].

If a student fails more than two subjects for the year, successful completion of the academic program is jeopardized, and the Administration will counsel the student and family as to next steps. If the failure occurs at the close of eighth grade or senior year, the student will be permitted to participate in graduation exercises, but will not receive a diploma until the failure has been addressed through an approved program and the student has passed the departmental exam.

## Policy for Courses Taken Online or from Other Educational Institutions

The Academy of Notre Dame recognizes certain courses taken online or from another educational institution with recognized credentials.

**Students must take required courses at The Academy of Notre Dame.**

Students may take non-required courses elsewhere for **enrichment only**.

In order to receive recognition for a non-Notre Dame course and have it included with her college applications, the student must supply the course syllabus, copies of assessments, and the final grade. It is also required that she discuss non-Notre Dame courses with her school counselor and receive approval from the Director of Upper School before registering.

**Summer courses and online courses (with exception to courses taken from the Online School for Girls) will not be factored into the GPA and will not be included on the student's Notre Dame transcript.**

## Absence Policy

### **Absences**

An incomplete (I) is given when a student misses a quiz, test, midterm and/or final examination or fails to complete the required work due to illness or emergency circumstances. It is removed when all work is completed satisfactorily. Unless extraordinary circumstances prevail, the "Incomplete" should be changed into a grade within two weeks after the close of the marking period. If the work and the exam are not completed within the assigned time limit, the grade automatically becomes a failure (F).

Students with an incomplete at the end of the semester are not eligible for the honor roll.

### **Medical Absence**

Students with extended absences due to medical illness or injury will receive an incomplete (I) until all work deemed necessary by the Director of Upper School is complete. A student may not participate in any extracurricular activities until she has been medically cleared by a doctor, an original clearance note is on file, **and she no longer requires academic accommodations** due to her medical illness or injury. In the case of school field trips that involve travel, physical activity, or loud noises a student must submit a doctor's note to the Director of Upper School or the Director of Middle School for each individual event clearing her to participate at least 48 hours prior to the activity. Exceptions to this policy will be at the discretion of the administration.

### **Missed Classes Due to School-Related Activities**

Absence for a planned school-related activity or athletic event does not excuse a student from tests, quizzes or assignments. It is a student's responsibility to notify teachers in advance of the absence. Arrangements to make up work that will be missed must be discussed with teachers prior to the absence. Teachers may require that a student take a quiz or test prior to the planned absence.

### **Absences Due to Non-School-Related, Non-Medical Reasons**

Non-school-related absences include, but not limited to, vacations, theatrical performances and productions, training camps, sporting events, sporting invitationals etc., are strongly discouraged. Priority should be given to the student's academic work. Responsibility to make up missed work rests with the student. The school cannot assume responsibility for course work covered while a student is absent for non-school-related purposes. Missed assignments, quizzes and tests for that time period are due upon return to school. No credit will be given for work not completed. With the exception of school-related activities, all absences will be included on the high school transcript.

## GPA Scale

		College Prep	Honors	AP
<b>A+</b>	100-97	4.33	4.48	4.63
<b>A</b>	96-93	4.00	4.15	4.30
<b>A-</b>	92-90	3.67	3.82	3.97
<b>B+</b>	89-87	3.33	3.48	3.63
<b>B</b>	86-83	3.00	3.15	3.30
<b>B-</b>	82-80	2.67	2.82	2.97
<b>C+</b>	79-77	2.33	2.48	2.63
<b>C</b>	76-73	2.00	2.15	2.30
<b>C-</b>	72-70	1.67	1.82	1.97
<b>D+</b>	69-67	1.33	1.48	1.63
<b>D</b>	66-65	1.00	1.15	1.30
<b>F</b>	64-0	0	0	0

## Statement of Course Offerings

### PLEASE NOTE:

- Course availability is predicated on sufficient course enrollment and scheduling limitations.**
- If an elective course is oversubscribed, preference will be given to students who require the course credit in order to meet graduation requirements.
- Advanced Placement (AP) courses are college level courses that follow a syllabus approved by the College Board. Students should note the academic prerequisites for enrollment in an AP course and carefully consider their interests and the amount of work and time required to successfully complete AP courses.
- Any student with 8 absences in one semester will not be eligible for Honors level or AP level courses.**
- A student who requests a course for which she does not meet the prerequisites, or for which she does not receive teacher recommendation, must schedule a discussion with the Director of Upper School, Department Chair, and the teacher of the course in question.
- In September, students will be given two schedule cycles to make changes in their course schedule. After that time, students will be expected to continue with the courses originally scheduled.
- Parents who have questions regarding course offerings or course selection, should contact their daughter's school counselor.

### Middle School Curriculum Overview Chart

	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<b>English</b>	Language Arts	Language Arts	Language Arts
<b>Arts</b>	Visual Art Music Dance Middle School Ensemble	Visual Art Music Dance Middle School Ensemble	Visual Art Music Dance Middle School Ensemble
<b>Health/PE Counseling</b>	Physical Education Seminar	Health Physical Education Seminar	Health Physical Education Seminar
<b>Mathematics</b>	Math 6 Honors Math 6	Pre-Algebra 7 Honors Pre-Algebra 7 Honors Algebra 7	Algebra 8 Honors Algebra 8 Honors Geometry 8
<b>Religion</b>	Intro to Catholic Tradition and Hebrew Scripture	Intro to New Testament and Sacraments	Church History and Morality
<b>Science</b>	Earth and Environmental Science	Life and Its Chemical Foundation	Physical Science
<b>Social Studies</b>	World Geography	United States History	American History/Civics
<b>Technology</b>	Information Skills Technology Integrated into the Curriculum	Information Skills Technology Integrated into the Curriculum	
<b>World Languages</b>	Intro to World Languages: French, Latin, Mandarin, Spanish	French 1A Latin 1A Mandarin 1A Spanish 1A	French 1B Latin 1B Mandarin 1B Spanish 1B

## Upper School Curriculum Overview Chart

	Grade 9	Grade 10	Grade 11	Grade 12
<b>Arts</b>	Intro to Visual/ Performing Arts Dance Company*** Women's Chorale*** HS Ensemble *** Art I ***	Art II Ceramic Design I Photography * Graphic Design * Intro to Dance * Dance Appreciation * Dance Company Upper School Ensemble Nightingale's Chorus Women's Chorale Music Theory * Introduction to Technical Theatre	Art II Art III Ceramic Design I Ceramic Design II * Advanced Ceramic Design** Photography * Graphic Design * AP Art History Intro to Dance * Dance Appreciation * Tap Dance * Musical Theatre Dance Dance Company Upper School Ensemble Nightingale's Chorus Women's Chorale Music Theory Introduction to Technical Theatre	Art II Art III Ceramic Design I Ceramic Design II * Advanced Ceramic Design** Photography * Graphic Design * AP Art History AP Studio Art Intro to Dance * Dance Appreciation * Musical Theatre Dance  Tap Dance * Senior Dance Project * Dance Company Upper School Ensemble Nightingale's Chorus Women's Chorale Music Theory AP Music Theory Introduction to Technical Theatre
<b>English</b>	Intro to World Literature **	British Literature ** Science Fiction & Fantasy * Journalism *	American Literature AP English Language Science Fiction & Fantasy * Journalism *	Women and Literature AP English Literature Science Fiction & Fantasy * Journalism *
<b>Health/PE Counseling</b>	Seminar 9 PE 9/Health 9*	Seminar 10 * PE/Health 10 *	Seminar 11 *	Seminar 12 *
<b>Math</b>	Expanded Algebra I Algebra I Geometry ** H Geometry/Alg II/Trig Algebra II/Trig **	Geometry ** H Geometry/Alg II/Trig Algebra II/Trig ** PreCalculus ** Design Thinking * Entrepreneurship Intro to Finance *	Algebra II Algebra II/Trig ** Advanced Math Concepts PreCalculus ** Calculus ** Design Thinking * Entrepreneurship Intro to Finance * Trig & Logic * Statistics .5 or 1 credit AP Statistics AP Calculus AB	Advanced Math Concepts PreCalculus ** Calculus ** Design Thinking * Entrepreneurship Intro to Finance * Trig & Logic * Statistics .5 or 1 credit AP Statistics AP Calculus AB AP Calculus BC
<b>Science</b>	Physics ** Independent Research	Chemistry ** Environmental Science Independent Research	Biology ** College Physics Neuroscience Anatomy/Biomedical Engineering Environmental Science Inorganic Chemistry AP Environmental Science AP Chemistry Independent Research	STEM Ethics College Physics Neuroscience Anatomy/Biomedical Engineering Environmental Science Inorganic Chemistry AP Biology AP Chemistry AP Environmental Science AP Physics Independent Research
<b>Social Studies</b>	World History I Independent Research	World History II American Government AP U.S. Government AP Human Geography Independent Research	World History II U.S. History AP U.S. History AP Human Geography Global Studies Macroeconomics Independent Research	World History II AP Comparative Government AP Human Geography Global Studies Macroeconomics Independent Research
<b>Religion</b>	Intro to Catholicism	Scripture	Catholic Morality	World Religion Social Justice Themes in Film & Contemporary Society
<b>Technology</b>	Integrated into the curriculum	Computer Programming * Robotics & Coding *	Computer Programming * Robotics & Coding * AP Computer Science (OSG)	Computer Programming * Robotics & Coding * AP Computer Science (OSG)
<b>World Languages</b>	French I French II ** Latin I Latin II ** Mandarin I Mandarin II ** Spanish I Spanish II **	French I French II, III ** Mandarin I Mandarin II, III ** Latin I Latin II, III ** Spanish I Spanish II, III **	French I French II, III, IV ** Mandarin I Mandarin II, III, IV **,V Latin I Latin II, III, IV ** AP Latin Spanish I Spanish II, III, IV **	French I French II, III, IV **,V AP French Mandarin I Mandarin II, III, IV **,V AP Mandarin Spanish I Spanish II, III, IV **,V AP Spanish Latin I Latin II, III, IV **, V AP Latin

\*offered as a semester course \*\*offered at honors level \*\*\*offered to 9th grade if accepted by audition or portfolio



## COUNSELING

### ***Middle School Counseling***

The middle school counseling curriculum provides academic experiences in small group classes that challenge students to develop and demonstrate healthy attitudes about themselves, others, and the world around them. Prevention skill-building opportunities are provided in critical areas in order to empower students with positive approaches to resist negative adolescent influences and pressures. The program is required for all students in each grade level; however, these courses are not graded.

#### **0006A Seminar**

#### **Grade 6**

Grade 6 counseling classes meet in small groups once per cycle during the academic year. Topics include successful transition into middle school, SMART goal setting, leadership development and school involvement, organization and time management, building self-concept through confidence and positive self-talk, diversity awareness, and empathy recognition. Students begin a focus on healthy communication patterns with an emphasis on emotional literacy and I-statements, the consequences and rewards of peer relationships, personal safety, and coping skills. Students also participate in initial career exploration through an understanding of career clusters.

#### **0007A Seminar**

#### **Grade 7**

Grade 7 counseling classes meet in small groups once per cycle during the first semester. Students build on their academic successes and further develop study skills based on their individual learning styles. Students continue their understanding of healthy communication through an exploration of personal contributions and learn healthy ways to cope with changes in relationships. Students learn to set boundaries that are appropriate for their safety and personal well-being. Grade 7 classes also discuss emotional self-control and how it relates to decision making and digital ethics of sharing thoughts to social media and the cyber world in general. Students continue to develop long term goals as they link their personal interests to potential career fields.

#### **0008A Seminar**

#### **Grade 8**

Grade 8 counseling classes meet in small groups once per cycle during the second semester. Advanced skill-building opportunities are provided in order to help students develop strong leadership qualities that allow them to assert themselves in a variety of different situations including peer pressure dynamics. Specific topic areas include self-awareness and acceptance, understanding and accepting differences from a local and global perspective, challenging negative beliefs and affirmations to help with emotional self-control, and managing stress to aid in the personal accountability of school success. Students conclude the year preparing for the upper school transition as well as building an awareness of a college preparation course of study for post-secondary goals.

## ***Upper School Counseling***

The upper school counseling curriculum provides a format for age appropriate discussion in a small group setting, with the counselor serving as both facilitator and educator. Topics covered vary from grade to grade as students mature in their cognitive, social, and emotional development. Additionally, these classes offer the counselor an opportunity to establish a relationship more quickly with their students. The program is required for all students.

### **7109 Seminar**

#### **Grade 9**

Grade 9 counseling classes meet in small groups once per cycle during the academic year. The 9th grade curriculum is designed to stimulate discussion and debate using a variety of teaching modalities regarding current teenage issues. Students are introduced to CIALFO, a comprehensive website that students can use to make plans regarding colleges and careers. Seminar topics include adjustment to upper school, learning styles, SMART goal setting, personality type inventories, study skills, time management, making healthy decisions, strengths exploration and course planning. Students begin developing a resume of upper school activities.

### **7110 Seminar**

#### **Grade 10**

Grade 10 counseling classes meet in small groups once per cycle during the first semester. The 10th grade curriculum includes SMART goal setting, a career interest profiler, career research and exploration using the CIALFO program, and course planning. Other topics include but are not limited to body image and media literacy, identity & self awareness, peer pressure, alcohol and other drugs, anxiety and stress management, as well as an initial college interest match. Students further build upon their individual resumes and are encouraged to connect their interests with mentorship opportunities.

### **7111 Seminar**

#### **Grade 11**

Grade 11 college counseling classes meet in small groups during the second semester. The curriculum is designed to introduce in a structured way the college search process to juniors. The program provides an overview of the college process and gives students a timeline for planning their activities. Topics to be presented include the following: college search engines, determining fit, standardized testing, college visits, interviews, application systems, activity resumes and college essays.

### **7112 Seminar**

#### **Grade 12**

Grade 12 college counseling classes meet in small groups during the first semester. The curriculum is designed to help students finalize their college search and establish a timeline for their activities in the first semester. Topics to be presented include reworking the prospective college list, determining the application option (early, regular, priority, etc.), standardized testing, and understanding the College Counseling office's internal application process.

## **ENGLISH**

The course offerings of the English Department enable students to use language to enrich their lives and to develop reading, writing, speaking and listening skills. These courses provide numerous opportunities for students to read, write, speak, listen, and think critically. Students read and analyze a diverse array of literary works, write in a variety of styles, and participate in discussions and presentations. They learn to locate and synthesize information for research using appropriate sources and strategies. Students will use language confidently and competently to communicate in the 21st century.

### ***Middle School Language Arts***

#### **0106 Language Arts**

#### **Grade 6**

The sixth grade Language Arts curriculum takes a thematic approach to the study of literature by exploring essential themes such as, “the significance of one’s setting and surroundings” and “discovering our unique selves, our families, and our stories.” Students explore, analyze, and interpret a variety of genres and key literary elements so that they may gain effective reading strategies to navigate different types of literature. Fundamental writing skills are taught through the development of introductory, support, and conclusion paragraphs for expository and creative writing. Reading and writing skills are complemented by addressing and practicing key literary terms and grammar skills including punctuation, parts of speech, and types of sentences. Vocabulary instruction ensues throughout the year through the selected readings and other sources.

#### **0107 Language Arts**

#### **Grade 7**

The seventh grade English program encompasses Literature and Language Arts studies which build on the sixth grade curriculum. This course incorporates the step approach in writing, with prewriting, drafting, revising, and editing of the final product. Students construct different forms of writing in order to analyze the connection between form and purpose. Within these compositions and within class discussions, students learn to value the use of evidence, proper grammar, and vocabulary development in the expression of their ideas. In addition, students develop study skills, time management, mnemonics, and critical thinking strategies. The students enjoy variety within genres and within topics of texts. Furthermore, both print and online resources foster students’ learning. Variety in assessments and activities, such as collaborative discussions, projects, essays, presentations, and journals, serve to guide students to the ultimate goal of becoming better communicators and critical thinkers.

#### **0108 Language Arts**

#### **Grade 8**

The eighth grade English curriculum is one focused not only on building reading comprehension skills honed in the sixth and seventh grades, but also on the development of critical thinking and analytical skills as students become higher-level readers, writers, and thinkers. Students read novels, drama, poetry, and mythology throughout the course of the school year. Exposure to such literature prepares students for the advanced curricula of upper school and for a lifetime of literary appreciation. The mastery of grammar and vocabulary and their inclusion into proper oral and written communication is an ongoing objective for students. Students write in a variety of forms focusing on critical, compare and contrast, research, and persuasive styles of written expression. The use of the drafting and editing process to create both analytical and creative writing pieces is an integral part of the eighth grade curriculum.

## Upper School English

- 1091 Introduction to World Literature and Writing** ● **Grade 9** **1 credit**  
This introductory course teaches students how to understand and reflect upon significant themes in the context of world history. A study of classical and modern selections of global literature develops the critical thinking and analytical skills needed to explore meaningful texts. The literature includes short stories, novels, poetry, drama, and nonfiction. Themes common to the human experience such as epic heroes, war and its aftermath, society and justice, and the meaning of life and death are investigated through a multicultural lens. This course reinforces the fundamentals of reading comprehension, grammar, vocabulary and writing, study skills and learning strategies, affording students additional ways in which to approach texts and to enhance academic skills. A yearlong writing portfolio engages students in a creative and thoughtful application of their learning.
- 1094 Honors Introduction to World Literature and Writing** ● **Grade 9** **1 credit**  
This introductory course teaches students how to understand and reflect upon significant themes in the context of world history. A study of classical and modern selections of global literature develops the critical thinking and analytical skills needed to explore meaningful texts. The literature includes short stories, novels, poetry, drama, and nonfiction. Themes common to the human experience such as epic heroes, war and its aftermath, society and justice, and the meaning of life and death are investigated through a multicultural lens. Honors World Literature includes substantial independent reading and more frequent and challenging writing assignments.  
**Prerequisites:** *At least an A in all formal written, graded pieces during eighth grade English, qualifying examination, and recommendation of the English Department.*
- 1101 British Literature and Writing** ● **Grade 10** **1 credit**  
This course traces the development of British literature from its beginnings through the early Victorian period, focusing study on selected works of various genres. The course exposes students to the depth and breadth of British literature and develops students' writing skills through the use of several types of writing genres. Methods of research and documentation are taught, and the composition of a substantial, documented research paper is required. Attention is given to preparation and writing of essays and oral presentations. Regular PSAT practice is integrated into this course.
- 1102 Honors British Literature and Writing** ● **Grade 10** **1 credit**  
This course traces the development of British Literature from its beginnings to the present day. Students explore the foundations of the English language through deeply analyzing selected major works. A strong emphasis on written communication, classroom discourse and critical thinking is required as students are responsible for reading at a fast pace and writing advanced comprehensive essays. Much of the required reading is independent, and class discussion will ensue. Students are also expected to read and understand literary criticism and complete outside research in order to supplement class material. Methods of documentation are taught and the composition of one substantial research paper is integrated into the honors course. Regular PSAT practice is offered throughout the year.  
**Prerequisites:** *At least an A in all formal written, graded pieces during ninth grade of English, qualifying examination, and recommendation of the English Department.*
- 1111 American Literature and Writing** **Grade 11** **1 credit**  
This course offers concentration in the works of many major American writers, and classes are handled primarily through seminar-style discussion. Students build and develop their skills as analytical readers and writers, as they learn how to intelligently discuss and appreciate the differences in writers' styles and techniques. Novels, short stories, poetry and creative nonfiction are studied. A strong focus is placed on analytical essay writing, and students have the opportunity to write creatively. By the end of the second semester, students complete personal essays for possible use as part of their college applications. PSAT and SAT preparation are also taught throughout the year.
- 1161 AP English Language and Composition** **Grade 11** **1 credit**

This course, equivalent to a college freshman Composition or Rhetoric class, offers intensive study of nonfiction prose written over the past four centuries in a variety of disciplines (e.g. art, science, history) for a multitude of purposes. Classic American literature texts (fiction and poetry) typically taught in the junior year are also covered, and students should be prepared to read and write widely and critically. Instruction emphasizes critical reading skills, theories of expository writing, practical writing skills, research methodologies, as well as oral persuasion and presentation skills. Reading comprehension, analysis and interpretation are stressed in AP English Language, but it is also a rigorous writing course. Students also learn more about the process of writing and revision and to synthesize ideas and information gleaned from not only texts but visual media as well (such as political cartoons or statistical graphs). As such, this is necessarily an interdisciplinary course, and it should lead students to become more thoughtful readers, writers and citizens no matter what course of study they may later pursue. The course requires intensive outside reading, writing, and group problem solving assignments, culminating in a collaborative research project presentation on a topic of public importance. The course is also discussion-heavy: it concentrates on building persuasive skills by engaging open, respectful dialogue on complex issues on which students may have differing views. Students are prepared for and required to take the AP English Language and Composition exam in May.

**Prerequisites:** *At least an A in all formal written, graded pieces during tenth grade of English, qualifying examination, and recommendation of the English Department.*

**1121 Women and Literature**

**Grade 12**

**1 credit**

The central theme of this course is the exploration of women's stories through reading, analyzing, and writing about texts by female writers. Students will read works from various genres and explore what it means to identify, or be identified, as female. They will examine how female identities and experiences have been affected and formed in the context of history, culture, and social conventions. Students will be encouraged to appreciate each text individually and also to understand intertextuality, exploring the works as part of a greater conversation about the global experiences and voices of women.

Students will develop their understanding of critical reading and scholarly discussion through seminar-style class periods, and a strong emphasis will be placed on essay writing, literary criticism, feminist theories and literary lenses. Throughout the year, students will also work on planning, developing and completing their Senior Research Projects as part of the requirements for this course and for their graduation from Notre Dame Academy.

**1151 AP English Literature and Composition**

**Grade 12**

**1 credit**

This course teaches literature and composition from an interdisciplinary perspective. Students are expected to write frequent analytical essays, to read widely, and to participate thoughtfully and voluntarily in class discussion. This course is designed to prepare students for the Advanced Placement test in English Literature and Composition and is geared toward students who have a strong interest in the humanities and who are able to handle the rigors and demands of a college level course. Special focus will be given to aiding students in the researching and writing of their Senior Capstone Projects throughout the year. Throughout the year, special focus will be given to aiding students in their Senior Research Projects. Students are prepared for and required to take the AP English Literature and Composition exam in May.

**Prerequisites:** *At least an A in all formal written, graded pieces during eleventh grade of English, qualifying examination, and recommendation of the English Department.*

**English Electives**

**1127 Science Fiction and Fantasy Literature**

**Grades 10, 11, 12**

**1/2 credit**

This one-semester English elective will provide students with the opportunity to discover literature in the science fiction and fantasy genres through novels, graphic novels, and short stories. Course readings will represent a range of authors, nationalities, and styles. The course goal is to encourage students, whether they may be avid or new readers of science fiction and fantasy, to the importance of these genres as they raise compelling questions, issues, and themes that are problematic in modern literature and society, and as they experiment with form and substance. [This course qualifies for the Arts Scholar Program.]

**1125 Journalism**

**Grades 10, 11, 12**

**1/2 credit**

This one-semester elective provides instruction and opportunities for creativity in the writing of newspaper and magazine articles (features, editorials, news stories). The course serves as an introduction to essential aspects of journalism, such as how to craft a news story as opposed to a feature story, how to interview, and how to maintain journalistic ethics. Students will produce, revise and proofread six polished articles, all of which must be intended for one of the school's publications: the newspaper, the yearbook or the literary magazine. [This course qualifies for the Arts Scholar Program.]

## **THE ARTS**

At Notre Dame, we believe that the Visual and Performing Arts are both a creative and an academic pursuit. By creating, students learn to appreciate the creative process, to solve problems, to respect others' forms of expression, and to work in groups. The Arts department considers the development of imagination, creativity, and aesthetic judgement to be essential compliments to the critical thinking skills developed in other disciplines. Notre Dame offers a traditional sequence of courses in the Visual and Performing Arts, with a commitment to cross-curricular collaboration.

### **Visual Arts**

#### ***Middle School Visual Arts***

##### **0600, 0601, 0602 Visual Art**

**Grades 6,7,8**

In each of their middle school years, students meet twice a cycle for visual art class. The goal of these art courses is to create a lifelong confidence in and passion for learning new techniques and improving their creativity. The focus of the coming year's courses are learning and using the design process to create solutions to a specific project challenge using digital technology as the primary medium. The Elements of Art and the Principles of Design will be incorporated in this design process.

A variety of applications will be presented and explored, and projects will be completed on student MacBook laptops. Additional digital output devices may be explored as well.

#### ***Upper School Visual Arts***

##### **6031 Introduction to the Visual Arts Grade 9 0.3 credit**

As part of the Ninth Grade Arts Requirement, this introductory course exposes students to a wide range of artistic experiences which include both two dimensional and three dimensional art forms. Students work in a variety of mediums and methods of art expression to address their visual understanding with an emphasis on the elements of art and principles of design. Students have the opportunity to develop creativity, non-verbal communication, and personal artistic skills. Students who participate in Upper School Ensemble or audition and are accepted into Dance Company, Nightingales, Women's Chorale, or Art I are exempt from this course.

##### **6045 Art I : Foundations (Part I)**

**Grades 9**\_\_\_\_\_

**1 credit**

This introductory course exposes students to a wide range of artistic experiences which include two dimensional and three dimensional art forms. Students work in a variety of mediums which include but are not limited to graphite, charcoal, watercolor paints, acrylic paints, plaster, and wire. There is an emphasis on understanding the elements and principles of art. Students have the opportunity to develop creativity, non-verbal communication, and personal artistic skills. Weekly sketchbook, home assignments and critiques are part of this course.

##### **6046 Art II: Foundations (Part 2)**

**Grades 10, 11, 12**

**1 credit**

A series of challenging two and three dimensional projects will be presented to enhance the student's skill development in drawing, painting, printmaking and three dimensional design. The concepts of line, value, composition and color will be covered using a wide variety of media. Emphasis is placed on improving the student's powers of observation. The student is encouraged to experiment and think creatively. Weekly sketchbook, home assignments and critiques are part of this course. Prerequisite: Successful completion of Introduction to the Visual Arts or Art I: Foundations (Part I).

### **6092 Photography** 📷

**Grades 10, 11, 12      0.5 credit**

This one semester elective course introduces students to the fundamentals of digital and traditional film photography. The course covers camera settings and functions, exposure, lighting, film processing, darkroom printing, digital file management, and digital photo editing using Adobe Photoshop. Introduction of basic photographic history and composing creative photographs using the Elements of Art and the Principles of Design are covered. All equipment and supplies including digital and traditional film cameras are provided. Students produce a digital portfolio of their work. This course requires average upper school out-of-class work time and camera check-out is expected..

### **6115 Graphic Design** 🖨️

**Grades 10, 11, 12      0.5 credit**

This one semester elective course introduces students to the fundamentals of graphic design using industry-standard Adobe Illustrator and Adobe Photoshop on MacBook laptops. Students learn basic design process thinking, sketching, and problem-solving skills as well as digital files management while using these digital tools. Specific areas of design such as logo, poster, book cover and website banner are presented as students observe and analyze exemplary works from a variety of designers past and present. Students create their own solutions to real-world design problems incorporating illustration, typography, the Elements of Art and the Principles of Design. Students produce a digital portfolio of their projects. This course includes critique, feedback and requires average upper school out-of-class work time.

### **6118 Ceramic Design I - Introduction to Hand Building and Wheel Throwing Techniques**

**Grades 10, 11, 12      1.0 credit**

🔵 In this year long introductory ceramics course, students create pieces of their own design using traditional hand building techniques, including coil, slab construction and pinched forms as well as exploring beginner wheel thrown forms. Students will use a variety of surface decoration and glazing techniques. Students will learn to approach ceramic artwork as both functional and sculptural objects. Students have the opportunity to develop creativity as well as develop their technical skills and artistic vocabulary. Throughout the progression of this course, students will learn about a variety of different cultures and their impact on the ceramic artform. We will be both acknowledging differences and making links to commonalities.

### **6112 Ceramic Design II** 🔵

**Grades 10, 11, 12      0.5 credit**

This one-semester course includes an in-depth exploration of hand building and wheel throwing techniques and how they relate to the elements of art. Throughout the progression of this course, students will learn about a variety of different cultures and their impact on the ceramic art form. We will be both acknowledging differences and making links to commonalities.

**Prerequisite:** Successful completion of Ceramic Design I.

### **6113 Advanced Ceramic Design**

**Grades 11, 12      0.5 credit**

This one-semester course includes an in-depth exploration of hand building and wheel throwing with emphasis placed on developing proficiency in construction, exploring advanced surface applications, and experimenting with altered forms.

This one-semester course includes an in-depth exploration of hand building and wheel throwing with emphasis placed on developing proficiency in construction, exploring advanced surface applications, and experimenting with altered forms.

**Prerequisite:** Successful completion of Ceramic Design II.

**6125 Art III: Drawing and Painting****Grades 11, 12****1 credit**

This course is for the student who wishes to further expand her knowledge and skills through observation of the figure, still-life, landscape, and architectural forms. A wide range of drawing and painting media and methods is explored. Students build drawing skills through the use of contour line, gesture and rendering using pencil, charcoal, pastel and ink. When painting, students work with tempera, watercolor and acrylic. Instruction focuses on design principles, composition, perspective, color theory and visual awareness. Independent thinking and creative problem solving is encouraged. Students begin to assemble a portfolio of finished work in order to advance to AP Studio Art. Sketchbook and homework assignments are required.

**Prerequisite:** *Successful Completion of Art II: Foundations Part II*

**6121 AP Studio Art****Grade 12****1 credit**

This advanced fine arts studio course emphasizes two-dimensional work using a variety of media and methods. Students use traditional and experimental approaches to solving visual problems. This course emphasizes creative thinking and experimentation. Students who choose this course should have at least two previous one-credit courses in art including Drawing and Painting and have considerable experience with observational drawing. . All students are expected to spend many hours outside of class on skill development and experimentation. Weekly sketchbook and home assignments are required.

**Prerequisite:** *Successful completion of two one-credit art courses including Drawing and Painting or three qualifying art pieces and recommendation of the instructor.*

**6131 AP Art History****Grades 11, 12****1 credit**

This college-level course in the History of Art is encyclopedic in scope, covering every historical period from antiquity to the present and representing civilizations from every inhabited continent. The method of instruction focuses on seminar-style discussions about many of the greatest masterworks of creative achievement in the visual arts. Slides, digital images, films, and at least three museum tours supplement *Gardner's Art Through the Ages*, the course textbook. Students are prepared for and required to take the AP Art History exam in May. [This course qualifies for the Arts Scholar Program.]

**Prerequisites:** *At least a B+ in English and at least a B+ in Social Studies or B in an AP Social Studies course and the recommendation of the department.*

**Performing Arts*****Middle School Dance and Music*****0611, 0612, 0613 Dance****Grades 6, 7, 8**

The Middle School dance program serves as a three-year comprehensive study of dance. The course emphasizes styles, skills and techniques at an introductory dance level. Students have the opportunity to study dance as a performing art form in grades 6 through 8. All students participate in a culminating performance program.

**Middle School Dance Company****Grades 6,7,8**

This select group of students will focus on a performance-based dance curriculum. The course will present an opportunity for students who are serious about the art of dance. Through this course, the students will learn how to work within an ensemble and prepare for performance opportunities. The course will offer knowledge in production, costuming, lighting design, and directing of a dance concert. Students will be required to participate in the Open House Performance, Winter Dance Concert, the Spring Dance Concert, the Inter-ac Dance Festival, Youth Regional Dance Celebration, Chester County Dance Festival, and many other performances scheduled for that academic school year. Acceptance into this course would require an audition. This course meets two times per cycle.

**6547, 6548, 6549 Music****Grades 6, 7, 8**

The Middle School Music program is a three year comprehensive study of music. Students learn to read music at an appropriate level and are introduced to different styles of music, instruments and choral music. Students study music for appreciation and as a performing art form. All students participate in the Christmas and/or Spring Concert.

**6653 Middle School Women's Chorale****Grades 6,7,8**



Emphasis of the course is placed on developmental singing in a variety of settings and situations. Students will work individually and collaboratively to present meaningful musical performances throughout the year. Performances will occur in a variety of mediums throughout the year. This approach will encourage and promote further development of the voice and allow singers to develop necessary skills and practice them in age appropriate musical settings. Students will develop sight reading and rhythm reading skills and will also experience music from a variety of cultures and settings throughout the year. Students will participate in the Christmas and Spring Concerts. This course meets two times per cycle.

**Prerequisites:** Students must audition for this group and/or recommended by the instructor.

### **6550 Middle School Ensemble**

**Grades 6, 7, 8**

This ensemble is offered to 6th, 7th, and 8th grade students. These young musicians have the opportunity to study the basics of orchestral performance through rehearsal of appropriate level music. Membership in this ensemble prepares students to advance to the next level. Students are required to participate in the Christmas and Spring Concerts. Students enrolled in this course will not be enrolled in Middle School Chorus. Additional rehearsals may be added closer to the concert.

**Prerequisite:** *At least two years experience playing an instrument.*

## **Upper School Dance and Music**

### **6202 Introduction to the Performing Arts**

**Grade 9**

**0.3 credit**

As part of the Ninth Grade Arts Requirement, this introductory course exposes students to dance, music and the history of American Theatre. Students who participate in the Upper School Ensemble or audition and are accepted into Dance Company, Nightingales, Women's Chorale or Art 1 are exempt from this course.

### **6211 Introduction to Dance**

**Grades 10, 11, 12**

**0.5 credit**

This one-semester course serves as an introduction to the styles, history, and techniques of dance as an art form. Students learn the basic principles and techniques of jazz, ballet, tap, and modern, as well as gain exposure to other dance styles. Students have performance opportunities throughout the semester.

### **6221 Dance Appreciation and Performance**

**Grades 10, 11, 12**

**0.5 credit**

This one-semester course provides a next step for building on students' prior dance knowledge and gives students who are serious about dance as an art form the opportunity to study dance from an academic perspective.

**Prerequisites:** *Successful completion of Introduction to Dance and/or recommendation of the instructor. Students should be prepared to audition.*

### **6231 Dance Company**

**Grades 9, 10, 11, 12**

**1 credit**

This select group of students focuses on performance-based dance. The course offers the opportunity for students who are serious about the art of dance. The group learns choreography, works within an ensemble, and prepares for numerous performance opportunities. The course offers knowledge in production, costuming, lighting design, and directing of a concert. Students are required to participate in the Open House Dance Performance, the Winter Dance Performance, the Spring Dance Performance, and the Regional and National Upper School Dance Festival Performances in addition to a commitment to participate in a variety of festivals and extracurricular performances. Additional rehearsals in direct connection to these performances may be required during community time. Additional, optional, performances may be scheduled for the academic school year. Acceptance into this course requires an audition.

## **Tap Dance: The Historical and Cultural Influences on the American Artform** Grades 11,12

.25 credit (2 times a cycle)

.50 credit ( 2 times a cycle and 3 independent study hours for Global Scholars and GPA )

Students will have an opportunity to study the American artform of tap dance and cultural dance practices that have so heavily influenced it over the centuries. Students will explore African Dance, Irish Step Dance, and English Clogging. With this exploration, students will understand the history and development of these cultural dance forms and will come to see similarities between them. The course's culminating project will be student choreography including all cultural influences on taThis course would be an elective and would not fulfill any graduation requirements..25 credit (2 times a cycle)

.50 credit ( 2 times a cycle and 3 independent study hours for Global Scholars and GPA )

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## **6250 Social and World Issues: Senior Dance Project**

.25 credit (2 times a cycle)

.50 credit ( 2 times a cycle and 3 independent study hours for Global Scholars and GPA )

To deepen the academic and emotional experience of researching often heavy subject matter, the dance curriculum looks to provide an artistic component to students' senior research project work.

As senior students are developing and investigating specific research projects on various social and global issues in their English classes, the Senior Dance Project class will allow students to simultaneously develop and create a reactionary choreographic project. This course will give the students the opportunity to explore and react to facts and data through dance. The culminating choreographic projects will be presented at both the Senior Project Presentation Day and The Spring Dance Performance.

*The following music elective courses are designed for those Upper School students who are seriously interested in developing their talents as performing musicians and their overall musicianship. This program prepares students for entrance exams and auditions at the university/conservatory level.*

.25 credit (2 times a cycle)

.50 credit ( 2 times a cycle and 3 independent study hours for Global Scholars and GPA )

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As senior students are developing and investigating specific research projects on various social and global issues in their English classes, the Senior Dance Project class will allow students to simultaneously develop and create a reactionary choreographic project. This course will give the students the opportunity to explore and react to facts and data through dance. The culminating choreographic projects will be presented at both the Senior Project Presentation Day and The Spring Dance Performance.

Students will have an opportunity to study the American art form of musical theatre. The class will focus on developing proper dance techniques while exploring the various dance styles used in Broadway shows. Emphasis will also be placed on learning performance skills such as connecting with the audience and telling a story through dance. Students have performance opportunities throughout the semester. Singing is not a requirement

This course would be an elective and would not fulfill any graduation requirements.

*The following music elective courses are designed for Upper School students who are interested in developing their talents as performing musicians and their overall musicianship. These courses are designed for students who want to explore and learn a new instrument or how to sing. Music Theory is designed for serious musicians who want to learn more about the language of music and the process of methodology.*

**Beginning Ukulele** **Grades 10,11,12** **.5 credit**

Students will gain an appreciation and love for how to care for and how to play the ukulele for enjoyment. This is an instrument that is very versatile and transportable allowing students to take it with them beyond the school building. In addition to learning the art of playing the instrument, students will also learn the anatomy of the ukulele in addition to vocabulary associated with the instrument. Additionally, students will learn how to tune the instrument in a variety of ways. Care for the instrument will also accompany themselves on many popular songs. Students will experience and learn songs in many musical forms, genres and styles. **No former experience is necessary to enroll in this course.**

**6551 High School Ensemble** **Grades 9, 10, 11, 12** **1 credit**

In this ensemble, students develop proficiency through rehearsal of a more advanced repertoire involving varying styles and periods of music. Students are required to participate in the Christmas and Spring Concerts. Ninth grade students opting to participate in ensemble take this course in place of the Ninth Grade Arts Requirement.

**6562 Nightingales Chorus** **Grades 9, 10, 11, 12** **1 credit**

The purpose of this choral ensemble is to work on the overall development of vocal and choral musicianship skills. Students will learn the importance of vocal health and the proper development of the voice as an instrument. Students will work on music reading and sight reading skills in order to help their overall musicianship. This ensemble is designed for students who love to sing and want to be in a choir without having further commitments beyond the required Christmas and Spring Concert performances. Students will develop skills to prepare them for future vocal and choral music studies. Throughout the progression of this course, students will learn about a variety of different cultures and their impact on the artform; music. We will be both acknowledging differences and making links to commonalities.

**Prerequisite:** *Audition and/or recommendation of the instructor.*

**6560 Women's Chorale** **Grades 9, 10, 11, 12** **1 credit**

This musical group provides an opportunity to study and perform the finest choral literature and to develop an enjoyment and sensitivity to music. Emphasis is placed on sight reading, and sight singing. The repertoire ranges from Baroque to Modern styles. Members of the Women's Chorale are required to participate in the Notre Dame Christmas and Spring Concerts, 8th Grade Advancement, Baccalaureate, and Graduation and are requirements for this course. Throughout the progression of this course, students will learn about a variety of different cultures and their impact on the artform; music. We will be both acknowledging differences and making links to commonalities.

**Prerequisite:** *Audition and recommendation of the instructor.*

**6571 Music Theory** **Grades 10, 11, 12** **1 credit**

This course provides students the opportunity to gain a background in Music Theory. Students will learn about key signatures, scales (major, minor (harmonic, melodic and natural), and general chord structure and progressions. Students will learn to compose simple melodies and harmonize them in four parts. They are also introduced to the use of the C clef and how to read and transpose using different clefs. Attention is also paid to musical form and analysis. Students focus on two and four part voicings as well as melodic and harmonic dictation (ear training). Students learn to aurally recognize, harmonize and sing at sight simple melodies. There is also a listening component to this course. This class is designed for students who want to graduate with a music concentration and those who plan to continue their music studies in the future in any capacity

**6572 AP Music Theory**

**Grades 11-12**

**1 credit**

AP Music Theory is a course that expands upon the skills and concepts learned in Music Theory I. Concentration is mainly placed on Western music of the 17th and 18th century, though music from other periods is also studied for stylistic reasons. Emphasis is continually placed on sight-singing, ear-training and musical composition to further students' understanding of music theory. Students enrolling in this course will take the College Board AP Music Theory test in the Spring. This course satisfies the Arts Scholar requirements.

Prerequisite: Completion of Music Theory 1 and an average of a B.

**Theatre Elective**

**0615 Introduction to Technical Theatre    Grades, 10, 11, 12**

**.5 credit**

As a continuation of Introduction to the Performing Arts, students will learn the basics of the theatrical production process. The class will explore the roles in theatrical production, the basics of tool use, an introduction to stagecraft, the basics of electrics and sound as they apply to musicals and plays, and costume/wardrobe. The culminating project will be a one scene excerpt from play/musical where they are both the producer and director.

## ***Middle School Health***

### **0007B Health**

#### **Grade 7**

This course is an introduction into physical, mental, emotional and social health. Students cover topics that give them the foundation to be able to lead a healthy lifestyle. In this course, students discuss areas in health including wellness, decision making, and goal setting. Students also learn refusal skills, nutritional information including the "food plate", and are given the opportunity to implement their own personal fitness logs.

### **0008B Health**

#### **Grade 8**

In this course the students explore topics related to healthy relationships, consumer health, tobacco/alcohol and drug use, and disease prevention. They look more in-depth at skills for forming and maintaining healthy relationships, find out what it takes to be a health literate consumer, focus on the impact of drugs and alcohol on the individual, family and society as well as addiction and dependency, and cover communicable and noncommunicable diseases.

## ***Upper School Health***

### **7509 Health**

#### **Grade 9**

**0.2 credit**

This course is designed to enable students to acquire knowledge related to their personal health and well-being through adulthood. This course includes health topics geared towards late adolescence and early adulthood in order to help students understand how to adapt to the changes that occur as they mature. Students explore topics such as: creating balanced meals, stress management and mental health issues, drug and alcohol abuse, reproductive health, and human growth and development. This course emphasizes applying knowledge and decision making skills. This course meets twice a cycle for a semester.

### **7509 Health**

#### **Grade 10**

**0.2 credit**

This hands-on course is designed to teach students basic First Aid and CPR principles so they are prepared in case of an emergency. Students are taught how to treat a variety of common injuries as well as recognize emergencies that require advanced life support. Students are also introduced to the cardiovascular and musculoskeletal systems; including how the heart functions and what role the bones and muscles have in the human body.

The Mathematics Department encourages learning and use of mathematics as a lifelong process. The curriculum includes the important mathematical concepts and processes necessary for students to acquire the knowledge, understanding, and skills to communicate proficiently in mathematics. It is our goal that the graduate will, through the focus on creative and innovative cross curricular problem solving, be able to successfully apply mathematical concepts to unique, high level multi-disciplinary challenges within a collaborative setting. The result is a mathematically competent and confident graduate that is able to use mathematics in their personal lives and in their future studies and careers.

### **Middle School Mathematics**

The Middle School mathematics program is based on a sequential developmental format. The program's goal is to maintain, develop, and extend skills and concepts required for higher mathematics while providing challenging opportunities for all students.

#### **0337 Sixth Grade Math**

#### **Grade 6**

This course introduces the study of integers, rational numbers, and geometric and pre-algebraic concepts, striving toward proficiency in mathematical skills. The students develop various critical thinking skills such as problem solving, logic and strategy. Connections between various branches of mathematics are emphasized, and calculator activities are explored. A basic four function calculator is used.

#### **0339 Honors Sixth Grade Math**

#### **Grade 6**

This course introduces the study of integers, rational numbers, geometric and pre-algebraic concepts, and strives toward proficiency in mathematical skills. The students develop various critical thinking skills such as problem solving, logic and strategy. Connections between various branches of mathematics are emphasized. Calculator activities are explored. Students in the Honors Sixth Grade Math course have mastered arithmetic skills and are able to work independently. A basic four function calculator is used.

**Prerequisites:** *Superior performance on the Notre Dame Entrance/Math Placement exams and recommendation of the Math Department.*

#### **0317 Pre-Algebra**

#### **Grade 7**

This course provides a foundation in Algebra, Geometry and problem-solving that is needed for success in more advanced courses. Pre-Algebra introduces the study of real numbers, solving equations and inequalities, linear expressions, exponents and scientific notation. The study of percents, probability and geometry is expanded. Problem-solving and critical-thinking skills are enhanced. A basic four function calculator is used.

#### **0372 Honors Pre-Algebra**

#### **Grade 7**

This course provides a foundation in Algebra, Geometry and problem-solving that is needed for success in more advanced courses. Honors Pre-Algebra introduces the study of real numbers, solving equations, inequalities, linear expressions, exponents and scientific notation. The study of percents, probability and geometry is expanded. Linear equations will be explored. Problem-solving and critical-thinking skills are enhanced. Students at the honors level have demonstrated mastery of mathematical skills, comfortable with an accelerated pace, and able to work independently. A basic four function calculator is used.

**Prerequisites:** *At least a B+ in Honors Sixth Grade Math or an A in Sixth Grade Math and recommendation of the Math Department.*

#### **0397 Honors Algebra Grade 7**

#### **Grade 7**

Students expand their problem-solving techniques and use connections among mathematical ideas. Polynomial equations and factoring, the solution and graphing of linear equations and inequalities, rational expression equations, systems of linear equations and quadratic equations are included. The students-explore absolute value, properties of radicals, radical equations, and linear and quadratic functions. The TI-84 Plus graphing calculator is used. Students are able to work independently.

**Prerequisites:** *At least an A in Honors Sixth Grade Math and recommendation of the Math Department.*

#### **0300 Algebra**

#### **Grade 8**

Students expand their problem-solving techniques and use connections among mathematical ideas. Polynomial equations and factoring, the solution and graphing of linear equations and inequalities, systems of linear equations and quadratic equations are included. Absolute value equations and inequalities are introduced. Linear functions and properties of radicals are explored. The TI-84 Plus graphing calculator is used.

### **0322 Honors Algebra Grade 8**

**Grade 8**

Students expand their problem-solving techniques and use connections among mathematical ideas. Polynomial equations and factoring, the solution and graphing of linear equations and inequalities, systems of linear equations and quadratic equations are included. The students will explore absolute value, properties of radicals, radical equations, and linear and quadratic functions. The TI-84 Plus graphing calculator is used. Students are able to work independently.

**Prerequisites:** *At least a B+ in Honors Pre-Algebra or an A in Pre-Algebra and recommendation of the Math Department.*

### **3011 Honors Geometry Grade 8**

**Grade 8**

This course presents an in-depth study of Euclidean geometry. It includes the topics of parallel lines and planes, congruent and right triangles, quadrilaterals, similar polygons, circles, areas, coordinate geometry and deductive reasoning. Logic skills are emphasized. Geometric concepts are extended through the use of computer activities as time permits. Algebraic skills are reviewed and strengthened through their application to solving problems in Geometry. In Honors Geometry the study of formal proofs and coordinate geometry is expanded and geometric transformations are explored. The focus of the Honors course is on independent thinking and critical reasoning. Students in Honors Geometry must be able to work independently and are expected to display a superior knowledge of mathematical and algebraic skills.

**Prerequisites:** *At least a B+ in Honors Algebra I and recommendation of the Math Department.*

## **Upper School Mathematics**

The Upper School mathematics program provides a sequential program until the completion of Algebra II and Trigonometry. Once a student has achieved this level of math, additional courses and electives are provided that allow students of all abilities to pursue four plus years of math. All students need access to and the use of a TI-84+ graphing calculator.

### **3005 Algebra I**

**1 credit**

Students expand their problem-solving techniques and use connections among mathematical ideas. They explore the axiomatic base of the real number system, and then develop a process for solving equations. Polynomial functions, factoring, the solution and graphing of linear equations and inequalities, absolute value inequalities, and systems of linear equations with two variables are included. Students work to connect and extend the concept of real numbers with radicals. Rational and radical expressions, as well as quadratic equations are introduced.

### **3006 Expanded Algebra 1**

**1 credit**

This foundational course is for students who have mastered introductory concepts of an Algebra 1 course. Students will continue in topics that include linear functions, systems of equations, exponents and their properties, quadratic functions, polynomial equations and factoring, properties of radicals, and solving quadratic and radical equations. Students will expand their problem-solving techniques and use connections among mathematical ideas to create concrete foundational skills that will enhance success in other advanced math concepts.

**3019 Geometry** **1 credit**

This course presents an in-depth study in Euclidean geometry. It includes the topics of parallel lines and planes, congruent and right triangles, quadrilaterals, similar polygons, circles, areas, coordinate geometry and deductive reasoning. Logic skills are emphasized. Geometric concepts are extended through the use of computer activities as time permits. Algebraic skills are reviewed and strengthened through their application to solving problems in Geometry.

**Prerequisites:**

**Grade 9:** Satisfactory performance on the Notre Dame Entrance/Math Placement exams.

**Grade 10:** Successful completion of Algebra I and recommendation of the Math department.

**3018 Honors Geometry** **1 credit**

This course presents an in-depth study in Euclidean geometry. It includes the topics of parallel lines and planes, congruent and right triangles, quadrilaterals, similar polygons, circles, areas, coordinate geometry and deductive reasoning. Logic skills are emphasized. Geometric concepts are extended through the use of computer activities as time permits. Algebraic skills are reviewed and strengthened through their application to solving problems in Geometry. At the Honors level, the study of formal proofs and coordinate geometry is expanded and geometric transformations are explored. The focus of the Honors course is on independent thinking and critical reasoning. Students must be able to work independently and are expected to display a superior knowledge of mathematical and algebraic skills.

**Prerequisites:**

**Grade 9:** Successful completion of Algebra 1, top 20% performance on the Notre Dame Entrance/Math Placement exams, and recommendation of the Math Department.

**Grade 10:** At least a B+ in Honors Algebra 1 or an A in Algebra 1 and recommendation of the Math Department.

**3021 Honors Geometry/Algebra II/Trigonometry** **1 credit**

This accelerated and enriched course includes the major topics of Euclidean and non-Euclidean Geometry, as well as topics of Algebra II and a study of trigonometric functions and their applications. Emphasis is placed on techniques of advanced algebra, logic and analytical reasoning. Students must be able to work independently and are expected to display a superior knowledge of Algebra I skills.

**Prerequisites:**

**Grade 9:** Successful completion of Algebra in middle school with at least an A, top 10% performance on the Notre Dame Entrance/Math Placement exams, and recommendation of the Math Department.

**Grade 10:** At least an A in Honors Algebra I and recommendation of the Math Department.

**3031 Algebra II****1 credit**

This course explores the material presented in Algebra I and gives greater attention to polynomial equations and inequalities, logarithms and exponents, complex and irrational numbers, and quadratic functions.

**Prerequisite:** Successful completion of Geometry.

**3081 Trigonometry and Logic****0.5 credit**

This course is open to students who have completed Algebra II. Topics include reference and coterminal angles, radian and degree measures, solving and applying right triangles, trigonometric identities, and graphing applications. Symbolic logic structure and truth tables and selected algebra topics will be covered as time permits.


**Prerequisite:** Successful completion of Algebra II.

**3041 Algebra II with Trigonometry** **1 credit**

This course includes the topics of Algebra II, analyzing equations and inequalities, graphing linear relations and functions, solving systems of equations and inequalities, matrices, polynomials and rational expressions, quadratic and higher degree polynomial functions, conic sections, rational expressions, exponential and logarithmic functions with the inclusion of a study of trigonometric functions and their applications.

**Prerequisites:** At least a C+ in both Algebra 1 and Geometry.



**3043 Honors Algebra II with Trigonometry** **1 credit**

This course includes the topics of Algebra II with Trigonometry, analyzing equations and inequalities, graphing linear relations and functions, solving systems of equations and inequalities, matrices, polynomials and rational expressions, quadratic and higher degree polynomial functions, conic sections, rational expressions, exponential and logarithmic functions with the inclusion of a study of trigonometric functions and their applications. At the honors level, additional topics covered include the more challenging conic sections, all trigonometric identities and the higher-order critical thinking problems are covered. The students in the honors course should display a high level of independence, insight and confidence in their math ability. The pace of instruction in the honors class is more challenging and offers opportunities for independent work.

**Prerequisites:** At least a B+ in Honors Geometry.

**Grade 9:** Successful completion of Algebra I and Geometry, top 20% performance on the Notre Dame Entrance/Math Placement exams.

**Grade 10:** At least an A in Geometry and the recommendation of the Math Department.

**Grade 11:** At least an A in Algebra 1 and Geometry and the recommendation of the Math Department.

**3060 Advanced Math Concepts****1 credit**

This course is a good preparation for Pre-Calculus or math analysis as a college course and provides the student with an overview study into higher-level topics beyond Algebra. These topics include set theory, concepts of functions, graphing, exponential and logarithmic functions, trigonometric functions, sequences, series, limits and continuity, and probability.

**Prerequisite:** Successful completion of Algebra II with Trigonometry or Algebra II and Trig/Logic.

**3051 Precalculus** **1 credit**

Precalculus is a college-level survey course designed to prepare students for Calculus. Among the topics included are: polynomial functions, exponential functions, trigonometric functions, extensive graphing, and sequence and series. Emphasis is placed on increasing the student's ability to deal with math intuitively without sacrificing rigor. Students are expected to be able to work independently.

**Prerequisites:** At least a B- in Honors Algebra II/Trig, B- in Geometry/Algebra/Trigonometry, B in Algebra II/Trig, or B in Advanced Math Concepts, and recommendation of the Math Department.

**3052 Honors Precalculus** **1 credit**

Honors Precalculus is a college level survey course designed to prepare students for Advanced Placement Calculus. This course builds on previous courses and therefore requires a solid foundation in Algebra. Among the topics included are: exponential, logarithmic, trigonometric functions, and the applications of each. Also included are polar coordinates, polar coordinate graphing, trigonometric form of complex numbers, sequence and series, and an introduction to limits. Graphing is an integral part of the course and will be stressed. This Honors Pre-Calculus course is designed to move at an accelerated pace and the successful student should be able to work independently.

**Prerequisites:** At least a B+ in Honors Algebra II/Trig, B+ in Geometry/Algebra/Trigonometry, and recommendation of the Math Department.

**3071 Statistics** **Grades 11, 12****0.5 credit**

Introduction to Statistical Techniques develops the foundation for a one-semester college course which most students need to take in college. Topics investigated include the nature of data, techniques of statistical graphing, displaying data, methods of sampling, measures of central tendency, measures of variation, measures of position, z-scores, and the normal distribution. Also included are introductions to probability, odds, permutations, and combinations. Extensive use of the statistical capabilities of a graphing calculator are integral to the course.

**Prerequisite:** Successful completion of Algebra II or Algebra II with Trigonometry.

**3070 Statistics** **Grades 11, 12****1 credit**

The course will cover an introduction to descriptive statistics, probability, probability distributions, normal probability distributions, confidence intervals, hypothesis testing with one sample, correlation and regression, and if time permits hypothesis testing with two samples, chi-square tests, and non-parametric tests.

**Prerequisites:** Successful completion of Algebra II or Algebra II with Trigonometry.

**3072 AP Statistics** **Grades 11, 12**      **1 credit**

This college-level course is intended to introduce motivated students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four major themes: Exploring Data; Planning a Study; Anticipating Patterns (producing models using probability theory and simulation); and Statistical Inference. Students are prepared for and required to take the AP Statistics exam in May. Students work independently as well as in a group.

**Prerequisites:** *At least a B- in Honors Precalculus, B in Precalculus, A- in Honors Algebra II Trig, or A- in GAT, and the recommendation of the Math Department.*

**3091 Calculus** **1 credit**

Calculus provides a problem solving and application driven approach to calculus for future business, social science, and humanities majors. Students will utilize mathematical and functional notation and high level math skills to perform techniques of differentiation and integration. Students explore and discover the utility of these techniques and apply problem solving strategies as they analyze and solve real world applications involving rates of change, marginal analysis, optimization, present and future value, and accumulation. Students explore and practice the use and application of the TI-83/84 family of calculators to solve and evaluate polynomial functions and plot and analyze graphs.

**Prerequisites:** *Successful completion of Honors Precalculus or a B in Precalculus and recommendation of the Math Department.*

**3092 Honors Calculus** **1 credit**

This course offers students the opportunity to discover and explore Calculus. The following college Calculus topics will be covered in a less rigorous way than the AP Calculus AB course: determining the limit of a function, the derivative of a function, and the integral applied to polynomial, trigonometric, logarithmic, and exponential functions. Students build relationships through physical activities, self-reflect on their understanding of concepts, and collaborate with peers and teacher on a regular basis. This course focuses on problem solving and a way of thinking, not necessarily on following a prescribed formula or set of steps. A TI-83/84 graphing calculator is required for this course.

**Prerequisites:** *At least a B in Honors Precalculus or an A in Precalculus and recommendation of the Math Department.*

**3193 AP Calculus AB** **1 credit**

Calculus is the mathematics of change and motion. This course includes the study of limits, differentiation, applications of differentiation, integration, applications of integration, and logarithmic, exponential, and other transcendental functions. Throughout the course, emphasis is placed upon the application of the Calculus to practical problems in various fields such as science, business and engineering. This course moves at an accelerated pace and goes into depth in understanding concepts and application. Students are prepared for and required to take the AB level AP Calculus Exam given in May.

**Prerequisites:** *At least an A in Honors Precalculus and recommendation of the Math Department.*

**3194 AP Calculus BC** **1 credit**

This course offers a continuation in the study of Advanced Placement Calculus AB to include special techniques of integration, improper integrals, vectors, parametric and polar equations, and infinite series. Emphasis is placed on the practical applications to science and engineering. This course moves at an accelerated pace and goes into depth in understanding concepts and applications. Students are prepared for and required to take the BC level AP Calculus Exam in May.

**Prerequisites:** *Successful completion of AP Calculus AB and recommendation of the Math Department.*

**3082 Introduction to Finance**        **Grades 10, 11, 12****0.5 credit**

This course introduces students to financial topics within both the business as well as personal arenas. Topics covered include an introduction to global financial markets, present value analysis and discounting, diversification, and the tradeoff between risk and return. The course covers six main areas: Business Finance, Personal Investments, Income and Taxes, Personal Money Management, Spending and Credit, and Global Business Practices. Critical thinking through the use of personal examples, application of prior mathematical skills, and integrating technology are the main focus. Global current events and technology may be used where appropriate.

**3300 Design Thinking**  **Grades 10, 11, 12****0.5 credit**

Students enrolled in this hybrid course will be introduced to the Design Thinking process, a procedure for brainstorming and testing products that fill a need in today's world. The nature of this course stems from Stanford's d.School, SAP's Young Thinkers program, and the United Nations Sustainable Development Goals, where students will work heavily in groups to collect data, sift through numerous ideas, create prototypes, and ultimately present a finished product. Students will gain exposure to forming groups using the T-shaped model of characterization, and discover lifelong skills needed in fields such as business, engineering, the humanities, and the sciences. This class features a Global classroom component, where one project may be accomplished alongside a Notre Dame sister school.

**3301 Entrepreneurship** **Grades 10, 11, 12****1 credit**

This course focuses on the complete process of discovering, building, and selling a completely self-designed product. The first half of the course focuses on the Design Thinking process, which highlights strategies used to develop ideas and build products that prove beneficial in a modern day environment. The second half of the course utilizes aspects of the business world to properly market and sell the students' designed products. This includes aspects of finance, economics, marketing, human resources, and other essential business roles. Projects for this course include designing and building prototypes of the product, developing a game plan for marketing/selling the product, participating in Enterprise Resource Planning (ERP)/Big Data activities, and presenting a business plan to possible investors.

## **PHYSICAL EDUCATION**

Physical Education courses at the Academy of Notre Dame provide students the fundamentals, knowledge and basic skills to maintain an active and healthy lifestyle. We provide a balanced, sequential program of age-appropriate activities such as: fitness, cooperative games and movement, as well as individual and team activities. The physical education program provides a positive learning environment conducive to learning, enjoyment and building self-confidence. Students exhibit respect, responsibility and sportsmanship through participation in a variety of physical education activities.

### ***Middle School Physical Education***

#### **7006, 7007, 7008 Physical Education**

**Grades 6, 7, 8**

Physical Education is required of all middle school students. PE provides every student the opportunity to participate in physical activity. There are a variety of activities including traditional team sports such as Flag Football, Floor Hockey, Volleyball, and Basketball as well as new sports including Kin ball and Tchoukball. Students have the chance to participate in cooperative games/team building, lawn games, flexibility exercises, and parachute activities. It is the goal to add variety with team and individual sports, along with leadership skills and team building activities. This is to ensure every student has something they can enjoy and possibly pursue outside of the school environment. Assessments include skill and knowledge assessments as well as performance-based assessments.

Students will be graded based on preparation and participation on a daily basis. A quarterly grade of O (outstanding), S (satisfactory) or U (unsatisfactory) will be determined by the average percentage of daily grades for that quarter.

O- 100%-90%

S- 89%-75%

U- Lower than 75%

### ***Upper School Physical Education***

#### **7009, 7010 Physical Education**

**Grades 9, 10**

**0.2 credit**

Physical Education is required in grades 9 and 10. The aim of the Upper School physical education program is to give the students the opportunity to try sports and/or activities that students will be able to continue to pursue outside of school and later into life- "lifelong skills". The types of lessons that the students participate in are Fitness - using the cardiovascular and weight lifting machines, flexibility exercises, Zumba, Circuit training, Aerobics, Team Building, and Peer Teaching. Giving the students the opportunity to learn those "lifelong skills" encourages them to continue to keep themselves physically active long after they have graduated. Assessments are ongoing throughout the semester and include skill and knowledge assessments along with a peer teaching assessment.

Students will be graded based on preparation and participation on a daily basis. A quarterly grade of O (outstanding), S (satisfactory) or U (unsatisfactory) will be determined by the average percentage of daily grades for that quarter.

O- 100%-90%

S- 89%-75%

U- Lower than 75%

## **RELIGIOUS STUDIES**

The Religion Department at the Academy of Notre Dame fosters faith development and critical thinking through a seven-year curriculum that challenges, inspires and educates each student in the foundational elements of the Catholic tradition. Course content is aligned with the Doctrinal Elements of a Curricular Framework published by the USCCB. Course content and goals are carefully connected to relevant, meaningful experiences in and out of the classroom, which we hope will complement the teaching role of parents by guiding students to a fuller understanding of the faith community in which they participate.

### ***Middle School Religion***

#### **0806 Introduction to Catholic Tradition and the Hebrew Scriptures      Grade 6**

Scripture and Church teaching, the basic building blocks of our faith, are the focus of this course, which offers an opportunity for students to discover the interrelatedness of the Bible, the Liturgical Year, major Catholic prayers and devotions, and the theology of the seven sacraments, particularly the sacrament of Confirmation. Students gain a working knowledge of the major figures and stories of the Hebrew Scriptures, and how they prefigure aspects and themes of the New Testament, as well as Church practices from the first century to the present.

#### **0807 Introduction to the New Testament and Sacraments      Grade 7**

Building on the overview of the Old Testament provided in the 6th grade, this course examines the entirety of Sacred Scripture, demonstrating how to read analogically and theologically, as well as historically. Students explore the prefiguring of themes from Gospels and Letters in the Old Testament texts related to them, and encounter the person of Christ throughout the Bible, from the messianic prophecies of the Hebrew prophets through the witness of the first Apostles, St. Paul and St. Stephen, and of course young Christians today.

#### **0808 Church History and Morality      Grade 8**

This course is a survey of the crucial events, people, and developments that have shaped the Church throughout its two thousand year history. In particular, the course examines the life of the Church as Jesus' community, the Body of Christ, from the earliest period to present day, with emphasis on the continuing impact of theological, historical and political challenges and conflicts.

### ***Upper School Religion***

#### **8094 Introduction to Catholicism      Grade 9      1 credit**

In this survey of concepts and beliefs central to membership in the Catholic faith community, emphasis is placed on the definition of terms and clarification of doctrine, and students are encouraged to engage personally in the consideration of basic faith issues--such as the nature of God's existence, the significance of the Incarnation, the meaning of the Trinity, the connection between beliefs and behavior, and the implications of salvation history. In addition, the course offers an opportunity to study Church History with an emphasis on the contribution of women and the growth of Catholicism in the city of Philadelphia. Course content also includes the study of the life and charism of St. Julie Billiart, foundress of the Sisters of Notre Dame de Namur.

#### **8111 Scripture      Grade 10      1 credit**

This course examines sacred Scripture in light of modern Catholic biblical scholarship. Through a study of the Torah, the historical books, the Prophets and Wisdom literature, students develop analytical skills essential for a deeper understanding of the Bible. They explore the Paschal Mystery as revealed in Christ, through the Gospel narratives and the Pauline letters, and also examine the experiences of the first followers of Jesus, their subsequent reflection and missionary activity. Students are encouraged to reflect on the meaning and relevance of Scripture as they grow in faith and understanding, and to explore different ways of reading the text - literally, historically, analogically and theologically.

**8164 Catholic Morality****Grade 11****1 credit**

Students begin the course by mastering the essential terminology of moral decision-making within the context of the ethical foundations of Catholic Social Teaching. Then, and for most of the year, students apply these principles as they navigate the moral terrain of the 21st century. Topics covered include sexuality, bioethics, capital punishment, social justice and stewardship. The course culminates in a major research presentation that includes an explanation of a specific moral issue from a cultural perspective and from the viewpoint of Church Teaching. Other assignments during the year reflect the scope and multidimensionality of “being Roman Catholic today”, including its political, social and ethical responsibilities, as well as the intellectual responsibility that comes with exercising each of these.

**Senior Seminar in Religion**

Seniors select one of the following yearlong seminar courses. Assignment to the selected course is subject to availability and depends upon enrollment and the student schedule constraints.

**8261 World Religions** ●**Grade 12****1 credit**

The sequence of religions of the world to be explored in this course changes somewhat from year to year, according to the urgency of understanding the roots of current global conditions. Certainly the major traditions each take the spotlight (Judaism, Christianity and Islam, Confucianism, Taoism and Buddhism, Hinduism, Sikhism, and Jainism, Zoroastrianism, Shinto and Baha’i), but the instructor may also choose to explore in more detail other families of faiths, from Native American traditions (North and South) to African religious expression. Throughout the year, students explore the historical relationship, where applicable, between the Catholic Church and these traditions, including a look at major Church documents intended to guide such study. This is a Global Scholar Required Course.

**8265 Social Justice Themes in Film & Contemporary Society** ●**Grade 12****1 credit**

Students deepen their understanding of the principles of Catholic social teaching by evaluating the degree to which various articles, websites, films and documentaries shed light on Vatican and USCCB documents. Issues covered in the course will include Environmental Stewardship, Biodiversity, Education of Women and the Poor, Food Insecurity, and Genocide.

## SCIENCE

At the Academy of Notre Dame, we strive to give our students the tools for understanding and appreciating the natural world. The development of critical thinking and analytical skills are encouraged by the question-oriented, problem-solving format that describes our science curriculum at every level. We believe strongly in the hands-on experience as central to science education. Therefore, the laboratory component is strongly emphasized. Consistent with our school's broader goals, the science curriculum addresses the role of women in science and the responsibility to utilize scientific knowledge within a moral values framework.

### Middle School Science

Science is a multifaceted study of the natural and physical world that employs mathematics, critical design through engineering and the use of technology to achieve this end. Each course in the Middle School Science Program incorporates different scientific disciplines in order to foster understanding of how the disciplines are intertwined. The courses offered encourage creativity and critical thinking through a STEM (Science, Technology, Engineering, and Mathematics) based curriculum.

#### 0506 Earth and Environmental Science

Grade 6

Students explore the ever changing Earth with an emphasis on how Geology, Meteorology, and Astronomy affect ecosystems.

#### 0507 Life and Its Chemical Foundation

Grade 7

Students study organisms, and cells as their basic unit, with emphasis on how macromolecules enable cells to communicate, respond to stimuli, reproduce, and evolve. Students use design-based inquiry to assess how organisms function and change, and the underlying chemical principles used in living systems. This course also incorporates an independent research project.

#### 0508 Physical Science

Grade 8

This course is designed to explore topics in chemistry and physics. Matter, atomic structure, chemical reactions, electricity and magnetism are examined through lecture, demonstrations, projects and extensive lab work. This course also incorporates **a research project**.

### Upper School Science

Notre Dame's science program is designed to prepare students for college studies in science, mathematics and engineering. Students are required to take three years of science, beginning with a sequence of Physics, Chemistry, and Biology. This succession of classes reflects the developmental needs and abilities of our upper school students: Physics in 9th grade, when they engage in more complex mathematical study; Chemistry in 10th grade, integrating the math and science skills acquired the previous year; Biology in 11th grade, as students grapple with more abstract and detailed scientific information, drawing upon on a foundation laid by previous years of study. In the senior year, most Notre Dame students take Science course(s) of their choosing, including AP offerings in each of the core subdisciplines (Physics/Chemistry/Biology) and a host of other electives.

#### 5101 Physics Grade 9

Grade 9

1 credit

Students investigate the principles of physics and develop problem solving skills. In this course, students investigate scale, vectors, motion, velocity, acceleration, free fall, projectile motion, and forces through lecture, demonstration, lab work and mathematical practice. Students apply techniques of Algebra to challenging word problems.






#### 5102 Honors Physics Grade 9

Grade 9






1 credit

Students investigate the principles of physics and develop problem solving skills. In this course, students investigate scale, vectors, motion, velocity, acceleration, free fall, projectile motion, circular motion, forces and energy through lecture, demonstration, lab work and mathematical practice. Students apply techniques of Algebra and Geometry to challenging word problems.

**Prerequisite:** Student placement is determined by the scores on the Notre Dame Entrance/Math placement exams.

- 5111 Chemistry**  **Grade 10** **1 credit**  
 This introductory course exposes students to the fundamental principles of chemistry through seven units of study: measurement in science, atomic structure, the periodic table, matter, chemical reactions, gases, and nuclear chemistry. Interactive lectures and discussions, problem solving, laboratory activities and student-designed experiments all help the students expand their critical thinking and organizational skills.
- 5113 Honors Chemistry**  **Grade 10** **1 credit**  
 This course is divided into nine units which include: an introduction to measurements and scientific method, atomic structure, the periodic table, matter, chemical reactions, and gases. Advanced topics such as molecular geometry, thermodynamics, and equilibrium are also covered. Interactive lectures and discussions, problem solving, laboratory activities and student-designed experiments help the students expand their critical thinking and organizational skills. Honors students are expected to solve the most challenging problems in each topic area with minimal teacher assistance. Independent research is an important component of this course; each student is required to conceive, design, and conduct an individual research project that they will enter into the Pennsylvania Junior Academy of Science.  
**Prerequisites:** *At least an A- test average in Physics Gr. 9 or a B+ test average in Honors Physics Gr. 9 and at least an A- in Math or B+ in honors-level Math, Honors Chemistry qualifying exam, and recommendation of the Math and Science Departments.*
- 5116 Inorganic Chemistry** **Grades 11, 12** **1 credit**  
 In this course, a second full year of more in-depth Chemistry study, students analyze and explore questions involving gas laws and kinetic theory, stoichiometry and chemical reactions and atomic structure and periodicity of elements. The course also examines equilibria systems, solutions, reaction rates and electrochemistry. Lab experimentation emphasizes data analysis and scientific problem solving skills as well as identification of unknowns through qualitative and quantitative analysis.  
**Prerequisite:** *At least a B in Chemistry or Honors Chemistry.*
- 5112A AP Chemistry**  **Grades 11, 12** **1 credit**  
 This intensive course is the equivalent of a one-year college-level chemistry course and covers the six big ideas as prescribed by the College Board for the AP Chemistry curriculum. These ideas include atomic structure, properties of atoms, chemical reactions, kinetics, thermodynamics and equilibrium. The course also includes the six science practices which involves extensive experimentation combined with inquiry and critical thinking skills. This intensive course is particularly helpful to those motivated students who plan to major in science in college. Students are prepared for and required to take the AP Chemistry exam in May.  
**Prerequisites:** *An A in Chemistry or at least an A- in Honors Chemistry, an A in Algebra II with Trigonometry or at least an A- in Honors Algebra II with Trigonometry or at least a B+ in GAT and recommendation of the Math and Science departments.*
- 5091 Biology**  **Grade 11** **1 credit**  
 The fundamental points that govern life and its processes are covered in this introductory Biology course. Students will study topics that range from Biochemistry, Ecology, Cellular Biology, Genetics and Heredity, Molecular Genetics, protein synthesis, Evolution, Microbiology, and Organismal Biology. In this laboratory intensive course, students will progress from the microscopic to macroscopic principles that aid in life and its processes.  
**Prerequisites:** *Successful completion of Physics 9 and Chemistry.*
- 5092 Honors Biology**  **Grade 11** **1 credit**  
 The fundamental points that govern life and its processes are covered in this advanced Biology course. Students will study topics that range from Biological Statistics, Biochemistry, Ecology, Cellular Biology, Genetics and Heredity, Molecular Genetics, protein synthesis, Evolution, Microbiology, and Organismal Biology. This laboratory intensive honors course will include a large writing and analytical component. **Prerequisites:** *At least a B+ test average in Honors Physics 9 and Honors Chemistry or at least an A- test average in Physics 9 and Chemistry, Honors Biology qualifying exam, and recommendation of the Science Department.*



- 5131 College Physics**  **Grades 11, 12** **1 credit**  
 This course is a second-level, algebra-based college physics course that expands on concepts of mechanics learned in the previous course, and introduces the topics of electricity, magnetism, waves, and optics, as time permits. This course moves at a highly accelerated pace, requiring students to develop discipline and skills for independent learning and problem-solving. Laboratory work emphasizes observation and data analysis.  
**Prerequisites:** At least an A- in Physics 9 or B+ in Honors Physics 9, an A in Algebra II with Trigonometry or at least an A- in Honors Algebra II with Trigonometry or a B+ in GAT and recommendation of the Science Department.
- 5132 AP Physics C (Mechanics)**  **Grade 12** **1 credit**  
 This course is equivalent to an introductory college-level, calculus-based, mechanics course. It covers the topics of kinematics; Newton's laws of motion; work; energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Use of calculus in the coursework will increase throughout the course. Laboratory work emphasizes observation, data analysis and theory development. Students are also required to design their own experiments. Laboratory investigations incorporate the use of PC based monitors and sensors and data collection and analysis software. Students are prepared for and required to take the AP Physics C: Mechanics exam in May.  
**Prerequisites:** At least a B+ in Honors Calculus or AP Calculus or a B+ in Honors PreCalculus and concurrently taking Honors Calculus or AP Calculus, with at least an B+ in Honors Physics or an A in Physics and recommendation of the Science Department.
- 5135 Neuroscience and Statistical Methods** **Grades 11, 12** **1 credit**  
 In this course, students study the functionality of neurons, their behavior in neural networks, and their interaction with more complex neuronal cells. Lecture, programming, modeling, and laboratory and design based investigations are employed to help students understand how the nervous system works. Students also evaluate hypotheses using appropriate statistical methods.  
**Prerequisite:** Successful completion of Biology or Biology taken concurrently.
- 5141 Environmental Science and Sustainable Design**  **Grades 10, 11, 12** **1 credit**  
 In this course, students study the effects of human impact on the environment, and explore methods, processes, and practices that attempt to minimize this impact. Topics include environmental literacy, populations, biodiversity, nutrient cycling, resource use, and pollution. Class discussion, lecture, student-designed laboratory investigations, modeling activities, projects, case studies, fieldwork, field trips and current event assignments are employed to help students gain a thorough understanding of environmental issues, and encourage stewardship. The course culminates in a student-designed project.
- 5143 AP Environmental Science**   **Grades 11, 12** **1 credit**  
 This course is designed to be the equivalent to a one-semester, introductory college course in environmental science. The goal of the 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 man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Topics include the Earth's Systems, Population Dynamics, Resources, Environmental Quality, Global Changes and Social Impact. This is a fast-paced course that includes lab and field investigations and a field trip. Students are prepared for and required to take the AP Environmental Science exam in May.  
**Prerequisites:** At least a B+ in Chemistry and an A- in current mathematics course and recommendation of the Science Department.
- 5151 Anatomy and Physiology with Biomedical Engineering Applications** **Grades 11, 12** **1 credit**  
 Students explore the physiological systems of the human body and the biomedical engineering applications related to those systems. Units studied include Homeostasis and Systems Biology, Musculoskeletal Systems and Biomechanics, Cardiorespiratory Systems with Fluid Dynamics, Reproductive Endocrinology and Biotechnology, Neuroimaging and Neurotechnology. Laboratory investigations that include scientific inquiry, problem solving, and innovative technologies, and experimental procedures are an integral part of this course. Students will interact directly with natural phenomena and analyze data collected by others. \*Dissection is a required part of this course.  
**Prerequisite:** Successful completion of Biology or Biology taken concurrently.

**5171 AP Biology** **Grade 12\*****1 credit**

This course provides able and motivated students with an opportunity to pursue college level biological studies while still in secondary school. It is a fast-paced, demanding course requiring extensive independent study. A college text is used and topics include molecular and cellular biology, genetics and evolution, and organisms and populations. Laboratory work encourages the development of important skills such as detailed observation, accurate recording, and experimental design, manual manipulation, data interpretation, statistical analysis and operation of technical equipment. Students are prepared for and required to take the AP Biology exam in May. This course is meant as a second-year Biology course, after having completed 11th grade Biology or Honors Biology.

Prerequisites: An A in upper school science courses or at least an A- in honors and AP courses, and having completed Algebra II Trig with at least a B+.

\*A limited number of rising juniors may be considered for this course based on qualifying criteria: a written application, a final grade of A or higher in both Honors Physics and Honors Chemistry, and two science teacher recommendations.

**5181 STEM Ethics** **Grade 12****1 credit**

New technologies in biomedicine, engineering, nanotechnology and robotics, as well as research ethics in the manipulation of bioinformatics and statistics require a knowledge of and respect for ethical codes of conduct. This course prepares students to contend with the difficult and complex ethical issues they may face in the research lab, workplace, and as citizens in a technological society. Through the use of case studies, the students examine ethical challenges in a variety of STEM fields and learn ethical decision-making strategies for resolving these dilemmas.

**5114 Independent Research in Science** **Grades 9, 10, 11, 12 .25 credit**

This elective is designed for students who want to participate in long-term scientific research during their free time. Each student, with the help of a faculty mentor, designs an extended laboratory research project. The student researches her topic, develops and carries out an experimental procedure, performs statistical analysis, and draws conclusions. The student's completed project must be entered into a local science competition (Delaware County Science Fair and/or PJAS) and be presented to the science department faculty at a yearly research symposium held in the spring. Work is done entirely on the student's own time; no class time is assigned. A .25 credit is given upon successful completion of the project. This course does not replace a required year of science; however, students may elect to do research more than once, receiving credit for each year of research. For more information, see the department chair.

**Please Note: Honors Physics Gr.9 and Honors Chemistry students are not eligible to receive this credit since research is a required part of their course curriculum.**

## **SOCIAL STUDIES**

Social Studies is the integrated study of the Social Sciences and Humanities. The development of critical thinking and writing skills within the framework of an array of Social Sciences (History, Government, Economics and Political Science) is fundamental in the preparation of students as both citizens and leaders. Students develop a respect for, and an appreciation of, cultural, ethnic and religious diversity, as well as a grasp of major institutions and modern nations in a complex and changing world. Our goal is to prepare students for their future studies as well as to develop a life-long interest in social studies.

### ***Middle School Social Studies***

#### **0416 World Geography**

**Grade 6**

World Geography is a study of each continent focusing on physical and cultural geography. Physical geography emphasizes the study of the earth, map skills, and climate types. The study of cultural geography focuses on behavior patterns. Given that the world is so interconnected, global topics such as climate change, pandemics, distribution of wealth, availability of clean water and sustainable food are included. Students use appropriate literature to strengthen their understanding of geographical concepts. In addition, research, writing, and outlining skills are reinforced throughout the year.

#### **0417 US History: Colonial Period to Reconstruction**

**Grade 7**

United States History in the 7th grade is the study of America from the Colonial Period through Reconstruction. By learning the motives for the American Revolution, the compromises of the Constitution, expansion into the western territories, and the devastating years of the Civil War, students gain an understanding of 18<sup>th</sup> and 19<sup>th</sup> century America. Because many issues that faced the Founding Fathers are relevant today, current events are discussed as well. Through a variety of exercises students improve skills in research, critical thinking, reading and writing.

#### **0408 20<sup>th</sup> Century American History and Civics**

**Grade 8**

United States History in 8th grade is a thematic study of (20th Century) America at home and in the world. Topics included: the World Wars (including the Holocaust and Japanese Internment camps), the Great Depression, Civil Rights (as applied to African Americans, Women, Latinos, and Asians in America), and the Cold War. Students also study citizenship within the structure of the United States government. The course focuses on the democratic heritage of America and explains how the democratic institutions function in response to the will of the people, relating political action to the experiences of everyday life. Current events are incorporated throughout the curriculum where appropriate. Through a variety of exercises students improve skills in research, critical thinking, reading and writing.

### ***Upper School Social Studies***

#### **4080 World History I**

**Grade 9**

**1 credit**

As an introductory course to Social Studies, the World History course lays the foundation for knowledge of both ancient and western civilizations. Students are introduced to a holistic cultural appreciation of both western and non-western civilizations as they focus on the study of these societies (Mesopotamia, Egypt, India and China) and the heritage of Ancient Greece, Ancient Rome, and the Middle Ages. Students focus on the use of and interpretation of primary sources as they practice critical thinking writing skills in the development of thesis driven essays. There is an ongoing emphasis for students to establish connections between the past and present through the integration of global current events and geography. Students gain an appreciation of the past so that they can appreciate the complexities of today's world.

**4101 American Government: Institutions and Issues****Grade 10****1 credit**

In the American Government course, students examine the historic background from which our government evolved. They gain a working knowledge of the U.S. Constitution, civil rights and the three major branches of government. Students develop an appreciation of citizenship and its responsibilities at all levels of government (local, state, and national) as well as an understanding of our pluralistic society through a study of ethnic, gender and minority issues. The course focuses on the issue of immigration, citizenship, and the challenges ahead for U.S. public policy. Throughout the curriculum emphasis is placed on the development of essay writing, research and oral presentation skills. National and foreign policy current events are also integrated throughout the school year so that students have a working knowledge of American politics.

**4191 AP U.S. Government and Politics****Grade 10****1 credit**

This course analyzes the nature of the American political system, its development over the past 200 years, and how well it works today. It examines in detail the principle processes and institutions of the federal government, as well as some of the policies that are established and how they are implemented. The following topics are covered: constitutional underpinnings of the government; political beliefs and behavior of the electorate; political parties, interest groups and mass media; institutions of the government; public policy and civil rights and liberties. Writing assignments are an integral part of the course. Students are prepared for and required to take the AP United States Government and Politics exam in May.

**Prerequisites:** *At least an A- test average in World History I, superior reading and writing skills, recommendation of the Social Studies Department.*

**4090 World History II****Grades 10, 11, 12****1 credit**

In World History II students study the economic and political roots of the modern world. The course explores the rise of the nation state from monarchies to revolution; industrialism and imperialism; the World Wars; and post-war struggles. Course content includes the study of political reform in Europe, and repercussions of imperialism in Africa, Asia, and South America. Students focus on the interpretation of primary sources as they further develop their critical thinking, writing, and oral presentation skills. There is an ongoing emphasis, ~~when opportunity~~, for students to establish connections between the past and present through the integration of global current events and geography.

**4111 United States History****Grade 11****1 credit**

This survey course covers political, social and economic themes in recent American history from Reconstruction to the present day. Students focus on the development of the United States as a major industrialized nation and its transformation into a leading force in the world throughout the 20th century. Through primary source readings, research, and analytical writing, class discussions and oral presentations, students hone their critical thinking skills. Integration of current events and its relationship to recent history is included where appropriate.

**4121 AP United States History****Grade 11****1 credit**

This college-level course, equating to six college credits, examines historical developments from pre-Columbian North America to the present day. The course focuses on the development of historical thinking skills including chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative. Students use historical facts and evidence to achieve deeper conceptual understandings of major developments in U.S. history. Thesis-driven essays, analysis of primary source documents, and interpretation of historical opinion, within the framework of a college seminar approach, prepare the student for the SAT subject test and required AP exam in May.

**Prerequisites:** *At least a B+ test average in AP Government or an A- test average in American Government, or an A- test average in World History I (or World Cultures) for those who have not completed an American Government course, superior reading and writing skills, and recommendation of the Social Studies Department. **N.B.:** It is strongly recommended that students complete an American Government course first.*

**4201 AP Comparative Government and Politics** 🌐**Grade 12****1 credit**

The AP course in Comparative Government and Politics introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global political and economic changes.

Comparison assists both in identifying problems and in analyzing policy making. In addition to covering the major concepts that are used to organize and interpret what we know about political phenomena and relationships, the course covers six specific countries and their governments: Great Britain, Russia, China, Mexico, Nigeria and Iran. By using these six core countries, the course can move the discussion of concepts from abstract definition to concrete example. This course is geared toward students who have a global interest as well as the ability to handle the rigors and demands of a college level course. This course runs the full year and is the equivalent of a one-semester three-credit college course. Students are prepared for and required to take the AP Comparative Politics and Government exam in May.

**Prerequisites:** At least a B+ test average in a previous AP Social Studies course and/or A- test average in U.S. History, superior reading and writing skills, and recommendation of the Social Studies Department. **N.B.:** It is strongly recommended that students complete an American Government course first.

**4211 Global Studies in the 21<sup>st</sup> Century** 🌐**Grades 11, 12****1 credit**

Global Studies in the 21st Century is a year-long course designed to challenge students to view global issues and challenges from an informed and insightful perspective. Students will analyze a variety of modern issues in the global community, as well as gain a historical and geographical perspective of these issues. Global Studies covers areas of study ranging from the rights of girls and women, global refugees and water rights, to in-depth analyses of modern conflicts in Africa, Asia and the Middle East. Research and analysis of current events are an integral part of the course. Literature is used when appropriate to a topic.

**4221 Macroeconomics and Contemporary World Issues** 🌐📊**Grades 11, 12****1 credit**

Macroeconomics and Contemporary World Issues is a year-long course which introduces students to the fundamental principles of economics: economic systems, scarcity, supply and demand, business organizations, and market structures. With the mastery of these principles, the students focus on economic systems as a whole. Topics include economic performance measures, inflation, unemployment, banking, and fiscal and monetary policies, as well as the role of multinational organizations. Applying their theoretical knowledge, the students will also examine and analyze current global economic issues, and through critical research evaluate challenges facing poor and developing countries. This course will prepare students for the realities of 21<sup>st</sup> century life.

**4231 AP Human Geography** 🌐📍**Grades 10, 11, 12****1 credit**

AP Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socio-economic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The course is organized around seven major topics: Geography: Its Nature and Perspectives; Population and Migration; Political Organization of Space; Agriculture, Food Production, and Rural Land Use; Industrialization and Economic Development; Cities and Urban Land Use. This course runs the full year and is the equivalent of a one-semester three-credit college course. Students are prepared for and required to take the AP Human Geography exam in May.

**Prerequisites:** At least an A- test average in most recent social studies class or a B+ test average in previous AP social studies class and recommendation of the Social Studies Department.

**4114 Independent Research in Social Studies****Grades 9, 10, 11, 12 .25 credit**

This elective is designed for upper school students who want to participate in National History Day. The student who pursues this elective, conducts research during her free time under the guidance of a Social Studies faculty member. The student's research follows the theme and guidelines of the National History Day competition for that year. The student's project must be submitted to the National History Day competition and be presented to members of the Social Studies Department. Work is done entirely on the student's own time; no class time is assigned. A .25 credit is given upon successful completion of the project and presentation. This course does not replace a required year of social studies; however, students may elect to do research more than once, receiving credit for each year of research.

## TECHNOLOGY

Technology is integrated throughout the middle school and high school curriculum and is driven by academic and research projects within the scope and context of courses.

### ***Middle School Information Literacy Skills Curriculum***

#### **0310 Information Skills**

**Grades 6, 7**

Students are introduced to the library portals, software applications and the technology available to them at Notre Dame. These include the applications in our Google suite including drive, Gmail, slides, drawing, sites, and calendar. Students are given an introduction to the research process through library and database orientations, the proper citation format of multiple types of resources, and the introduction of primary and secondary sources. Presentation software and Web 2.0 tools are introduced, as are lessons on Digital Citizenship and Notre Dame's Acceptable Use Policy. Every class provides students with hands-on opportunities to fully understand and utilize each tool and application. Digital portfolios are created to capture student projects. Class time is also used for collaboration with various classroom teachers on research projects throughout the year.

### ***Upper School Computer Technology***

#### **5110 Computer Programming**

**Grades 10, 11, 12    0.5 credit**

This course teaches the core skills of analyzing problems and solving them by developing and testing computer programs using Java in an Integrated Development Environment (IDE). The course includes the fundamental concepts of programming in Java, including an introduction to the following: classes and objects, declaration statements, fundamental data types, Java API, testing and debugging programs, basic graphics using applet structure, decisions and iteration, methods, arrays and inheritance.

#### **5138 Robotics and Coding**

**Grades 10, 11, 12    0.5 credit**

The Robotics and Coding course is a one semester course designed to introduce students to the field of robotics. The course focuses on the following topics and skills: robotics and tool safety, the effects of robotics on society, hardware and electronics basics, an introduction to computer programming, engineering notebook writing, building and testing robots and circuits and 3-D printing. These skills will be applied to projects including an underwater remotely operated vehicle (ROV), Arduino circuits, and the design of original robot using TETRIX components and 3-D printed parts.

#### **3501 AP Computer Science (OSG)**

**1 credit**

AP Computer Science is an online course offered through the Online School for Girls. This is a college-level course that focuses on the innovative aspects of computing as well as the computational thinking practices that help students see how computing is relevant to many areas of their everyday lives. The curriculum is built around fundamentals of computing including problem solving, working with data, algorithms, understanding the Internet, cybersecurity, and programming. A student must have a strong work ethic and ability to work well independently as well as in a group. A personal computer is a requirement for this class. Students are prepared for and required to take the AP Computer Science Principles exam in May.

**Prerequisites:** *Successful completion of Algebra II and one of the following: Robotics and Coding, Introduction to Computer Programming or completion of one year of Coding club.*

## WORLD LANGUAGES

The World Languages Department of the Academy of Notre Dame offers its students an extended and uninterrupted sequence of study in French, Latin, Mandarin Chinese, or Spanish for middle school students and upper school students. Students in the middle school are prepared for the second level of a world language by the end of eighth grade. Students are required to study at least three consecutive years of the same language in upper school. The opportunity to study a second world language as an elective is available to any student beginning in the sophomore year. In French, Mandarin Chinese, and Spanish, our primary goal is the development of a working proficiency that will enable students to use the languages for communication beyond the classroom walls. In Latin, students encounter a language that is very much alive, and although conversational fluency is not a goal of Latin study, students hone their language skills through writing prose and verse. Grammar usage and the study of cultures are integral parts of the curriculum.

### ***Middle School World Languages***

#### **0206 World Languages**

#### **Grade 6**

This course introduces the sound system, basic vocabulary and grammatical structures of the French, Latin, Mandarin and Spanish languages through an aural-oral approach. Students will also be introduced to cultural aspects of the target cultures. Students will spend one quarter studying each language and culture and at the conclusion of the course, students will be able to select the language they wish to study in Grades 7 and 8.

#### **0207 French 1A**

#### **Grade 7**

This course begins the development of the four language skills (listening, speaking, reading, and writing) through study of grammatical structures and vocabulary. It is designed to help students develop linguistic proficiency and cultural sensitivity by interweaving language and culture.

#### **0217 Latin 1A**

#### **Grade 7**

This course introduces the fundamentals of Latin grammar and the basic structures of the language. Students engage in a course of extensive reading via novellas in Latin. Aspects of Roman culture, history, art, architecture, and daily life are studied.

#### **0237 Mandarin Chinese 1A**

#### **Grade 7**

This course serves as an introduction to Modern Standard Chinese (Mandarin) as a world language for beginners. The main goal for this course is for students to acquire a culturally contextualized working knowledge of and essential skills in introductory Chinese. The course aims at developing four basic skills, reading, writing, listening, and speaking, and at building a solid foundation in preparation for more advanced studies.

#### **0227 Spanish 1A**

#### **Grade 7**

Beginning students are introduced to the four skills of listening, speaking, reading and writing with a primary focus on communication. The course is designed to help students develop linguistic proficiency and cultural sensitivity by interweaving language and culture.

#### **0208 French 1B**

#### **Grade 8**

This course is offered to those students who have successfully completed French: Level 1A. It continues the development of the four language skills and includes a study of grammar structures and expanded vocabulary.

#### **0218 Latin 1B**

#### **Grade 8**

This course is offered to those students who have successfully completed Level 1A. The course continues the study of Latin grammar and syntax begun in 1A. Further aspects of Roman culture, religion, and history are studied.

#### **0238 Mandarin Chinese 1B**

#### **Grade 8**

This course is offered to the students who have successfully completed Level 1A. This course continues the development of the four skills; expanding vocabulary and basic grammatical particles. Students will continue working on character recognition and will be introduced to modern Chinese society and culture.

## 0228 Spanish 1B

Grade 8

This course is offered to the students who have successfully completed Level 1A. This course continues the development of the four skills, expanding vocabulary and grammar. Pertinent aspects of Hispanic culture are included.

## Upper School World Languages

### Honors/AP Level Requirements

Beginning in the second level of all languages, the department offers both a college-preparatory and an honors course. In order to receive a recommendation from the World Languages Department for entrance into an honors-level or AP course, students must earn at least an A test average and at least a B+ on a placement exam. A student considering an honors-level course must consistently demonstrate substantive and engaged participation in class and exceed expectations of written and oral tasks. Students who are recommended by the department to move from the college-preparatory level to the honors level must complete supplemental work over the summer. Once enrolled in an honors-level course, students must maintain a B test average in order to be eligible for subsequent courses in the honors sequence.

● **Any second world language is considered an approved Global Citizen Scholar course**

## French

### 2071 French I

Grades 9, 10, 11, 12 1 credit

This course begins the development of the four language skills (listening, speaking, reading, and writing) through study of grammatical structures and vocabulary. It is designed to help students develop linguistic proficiency and cultural sensitivity by interweaving language and culture. There is an additional emphasis on reading, writing and Francophone culture.

### 2081 French II

Grades 9, 10, 11, 12 1 credit

This course continues the development of the four language skills through further study of grammatical structures and vocabulary. It is designed to help students develop linguistic proficiency and cultural sensitivity by interweaving language and culture. There is additional emphasis on reading, including completion of a short chapter book. Other emphasis includes focus on writing and French culture. Spontaneous oral work is an integral part of this course.

**Prerequisite:** Successful completion of French I with at least a C test average, and the recommendation of the French I teacher.

### 2082 Honors French II

Grades 9, 10, 11, 12 1 credit

In addition to covering the French II material at an accelerated pace and in more depth, students in Honors French II complete one additional chapter in the text, two additional small chapter books, and four additional short stories and/or poems. In preparation for the National French Contest given in the spring, students also learn the imperfect tense, as well as additional vocabulary and expressions. Spontaneous oral work and extensive writing are integral components of this course.

**Prerequisites:** Successful completion of French I and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

### 2111 French III

Grades 10, 11, 12 1 credit

This course gives students the opportunity to continue the development of the four language skills (listening, speaking, reading, and writing) by using the vocabulary and the basic structures learned. It immerses the student in authentic cultural contexts and language designed to develop and expand effective communication in French. It provides extensive reading opportunities, varied writing practice, continuing thematic vocabulary and language development, and a wide range of communication activities.

**Prerequisite:** Successful completion of French II with at least a C test average, and the recommendation of the French II teacher.



**2101 Honors French III****Grades 10, 11, 12****1 credit**

In this course emphasis is placed on speaking and writing skills through discussion (oral and written) of current topics and selected readings. Course material is presented at a challenging pace. Students are expected to complete independent work including supplementary readings, oral recordings, and three research projects.

**Prerequisites:** Successful completion of Honors French II or French II and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2121 French IV****Grades 11, 12****1 credit**

A systematic review and refinement of grammatical structures learned during previous years is included in this course. Emphasis is placed on speaking and writing skills through discussion (oral and written) of current topics and selected readings. Students will complete an extensive research project, supplementary reading (*Le Petit Prince*), and frequent writing assignments to provide opportunities for independent research on culture and life in the Francophone world.

**Prerequisite:** Successful completion of French III with at least a C test average, and the recommendation of the French III teacher.

**2131 Honors French IV****Grades 11, 12****1 credit**

Emphasis in this course is placed on speaking and writing skills through discussion (oral and written) of current topics and selected readings as well as through the refinement of previously learned grammatical structures. In addition to mastering the basic French IV course material at an accelerated pace, students are expected to complete independent work including supplementary readings (*Le Petit Prince*), oral recordings, vocabulary acquisition, an extensive research project and frequent compositions. In preparation for the National French Exam given in the spring, they also learn additional vocabulary and grammatical concepts.

**Prerequisites:** Successful completion of Honors French III or French III, recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2141 French V****Grade 12****1 credit**

Students continue the development of the language skills through oral and written discussion of current topics and selected readings. A selection of poems are read and discussed. In addition, the geography and history of France are studied with frequent projects based on Francophone culture and historical periods.

**Prerequisites:** Successful completion of French IV with at least a B test average and recommendation of the World Languages Department.

**2151 AP French Language and Culture ****Grade 12****1 credit**

This one-year college-level course is intended for those students who wish to develop their proficiency in French. The course emphasizes the development of the student's abilities to understand spoken French, to read, and to express ideas orally and in writing with reasonable fluency. This course gives students the opportunity to continue the development of the four language skills—listening, speaking, reading, and writing—through a systematic review and expansion of syntactical structures, vocabulary expansion, selected readings, oral exercises, and communicative activities. Upon successful completion of this course, students are able to function at the intermediate-high level of proficiency in the four language skills. Students are prepared for and required to take the AP French Language and Culture exam in May.

**Prerequisites:** Successful completion of Honors French IV or Honors French III and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**Latin****2161 Latin I****Grades 9, 10, 11, 12****1 credit**

This course introduces the fundamentals of Latin grammar and the basic structures of the language: five declensions of nouns, the case names and endings; three declensions of the adjectives, case endings and uses with nouns; four conjugations of verbs, use of the six tenses, active and passive voices; and prepositions and their uses in sentences. Aspects of Roman culture, history, art, architecture, and daily life are studied. Stories of Roman mythology are read in Latin as students gain facility in handling Latin sentences.

**2171 Latin II****Grades 9, 10, 11, 12 1 credit**

This course begins with an intensive review of the vocabulary and grammar taught in Latin I. New vocabulary and new grammatical constructions are introduced. The subjunctive mood is studied in detail because of its consistent use in various types of Latin clauses. Certain aspects of Roman history and important historical and legendary characters are read and discussed with concentration on the Labors of Hercules and Livy's *History of Rome*. Excerpts from Ovid are also read. Oral reports may be assigned on historical topics, such as Roman Women. An attempt is made to establish connections between the people of ancient times to the people of our own time.

**Prerequisites:** Successful completion of Latin I with at least a C test average, and the recommendation of the teacher.

**2172 Honors Latin II****Grades 9, 10, 11, 12 1 credit**

In addition to covering the Latin II material in more depth, students in Honors Latin II will have the opportunity to read additional selections from the works of Classical and Post-Classical Latin authors. Students will also be introduced to the study of Latin epigraphy and the uses of Latin outside of literary works.

**Prerequisites:** Successful completion of Latin I and the recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2182 Latin III****Grades 10, 11, 12 1 credit**

This course in Latin literature introduces students to the poetry and politics of the Augustan period. Focusing on the writings of the Augustan poets, students attain proficiency in Classical Latin grammar and syntax while also learning about the standard rhetorical and poetic devices of the period. Students will also explore the connections between the texts they read and political and social developments at Rome. The principal authors under consideration will be Ovid, Horace, and Propertius. Prose of the early imperial period will also be studied.

**Prerequisite:** Successful completion of Latin II with at least a C test average, and the recommendation of the teacher.

**2183 Honors Latin III****Grades 10, 11, 12 1 credit**

In addition to covering the material in Latin III in more depth, students in Honors Latin III will complete readings in Latin literature of the imperial period. These may include selections from Pliny's *Letters*, Livy's *Ab Urbe Condita*, and Tacitus' *Annals*. Students will also be expected to develop their skills in prose composition.

**Prerequisites:** Successful completion of Honors Latin II or Latin II and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2190 Latin IV****Grades 11, 12 1 credit**

This course in Latin literature introduces students to the poetry and politics of the Augustan period. Focusing on the writings of the Augustan poets, students attain proficiency in Classical Latin grammar and syntax while also learning about the standard rhetorical and poetic devices of the period. Students will also explore the connections between the texts they read and political and social developments at Rome. The principal authors under consideration will be Ovid, Horace, and Propertius. Prose of the early imperial period will also be studied.

**Prerequisite:** Successful completion of Latin III with at least a C test average, and the recommendation of the teacher.

**2191 Honors Latin IV****Grades 11, 12 1 credit**

In addition to covering the material in Latin IV in more depth, students in Honors Latin IV will complete readings in Latin literature of the imperial period. These may include selections from Pliny's *Letters*, Livy's *Ab Urbe Condita*, and Tacitus' *Annals*. Students will also be expected to develop their skills in prose composition.

**Prerequisites:** Successful completion of Honors Latin III or Latin III and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2195 AP Latin** **Grades 11, 12****1 credit**

This one-year college-level course introduces students to the writings and thoughts of Julius Caesar and of Vergil. Students will read selections from Caesar's *Gallic War* and Vergil's *Aeneid* and analyze the literary and rhetorical devices contained in these works. The study of the *Aeneid* will include a consideration of Latin metrics and scansion. Additionally, students will explore the historical contexts in which these works were produced, the Late Republican and early Augustan periods respectively. Topics to be studied include ethnography and empire, Roman religion and the state, and the depiction of women. Students will also work on improving their sight translation skills. Students are prepared for and required to take the AP Latin Exam in May.

**Prerequisites:** Successful completion of Honors Latin III and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2185 Advanced Independent Study in Latin Literature****Grade 12****1 credit**

This advanced independent study affords students the opportunity to read selected works of Latin literature under the supervision of a teacher. Through a series of independent projects, the student will research the socio-political context of the works in question, the reception and influence of the texts, and approaches to their interpretation. Possible topics include: the Roman Dramatic Tradition, Silver Age Epic, Philosophy in the Roman Empire, and the Latin of New Spain.

**Prerequisites:** Successful Completion of AP Latin and recommendation of the World Languages Department

**2192 Latin V****Grade 12****1 Credit**

This advanced reading course in Latin literature affords students the opportunity to read selected works of Latin poetry and prose. Texts will be chosen in accordance with student interest. Students will research the socio-political context of the works in question, the reception and influence of the texts, and approaches to their interpretation. Possible topics include: the Roman Dramatic Tradition, Silver Age Epic, Philosophy in the Roman Empire, and Renaissance Latin.

**Prerequisites:** Successful Completion of Latin 4 or AP Latin with at least a B test average and the recommendation of the World Languages Department

**Mandarin Chinese****2402 Mandarin Chinese I****Grades 9, 10, 11, 12****1 credit**

This course serves as an introduction to Modern Standard Chinese (Mandarin) as a world language for beginners. The main goal for this course is for students to acquire a culturally contextualized working knowledge of and essential skills in introductory Chinese. The course aims at developing four basic skills, reading, writing, listening, and speaking, and at building a solid foundation in preparation for more advanced studies.

**2403 Mandarin Chinese II****Grades 9, 10, 11, 12****1 credit**

Based on the introductory knowledge learned in Mandarin Chinese I, students continue to explore communicative knowledge and build conversations in a variety of contexts. The course aims at improving fluency in speaking and vision memorization for writing characters. All four language skills, reading, writing, listening and speaking, will be strengthened by doing contextualized work. Students will also be using their language knowledge to explore diverse cultural topics, such as various genres in literature and contemporary social life. Students should reach to lower intermediate level when they finish Mandarin Chinese II.

**Prerequisite:** Successful completion of Mandarin Chinese I with at least a C test average, and the recommendation of the teacher.

**2413 Honors Mandarin Chinese II****Grades 9, 10, 11, 12 1 credit**

In addition to covering the Mandarin Chinese Chinese II material, students in Honors Mandarin Chinese II complete two additional poems and four additional short stories as separate projects. They also learn additional vocabulary and expressions from the HSK test guide. Spontaneous oral work and extensive writing are integral components of this course.

**Prerequisites:** Successful completion of Mandarin Chinese Chinese I and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

\*HSK: a series of standard tests developed by Chinese Educational Bureau to assess Mandarin Chinese learners' language and culture knowledge.

**2404 Mandarin Chinese III****Grades 10, 11, 12 1 credit**

This course includes a review of all basic grammar structures. Students will learn more advanced sentence structures and transitional phrases in formal writing and presentations. Students will be given longer essays and stories to enhance their reading skills. A significant part of the course is devoted to spontaneous conversation using the new phrases and sentence structures.

**Prerequisite:** Successful completion of Mandarin Chinese II with at least a C test average, and the recommendation of the teacher.

**2414 Honors Mandarin Chinese III****Grades 10, 11, 12 1 credit**

Students will learn more extensive grammatical structures and idioms from additional reading materials, speaking and writing practice. Students in this level complete additional projects integrating studying contemporary Chinese society and enhancing four language skills. In preparation for the HSK level three, students will commit extra time in character learning.

**Prerequisites:** Successful completion of Honors Mandarin Chinese II or Mandarin Chinese II and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

\*HSK: a series of standard tests developed by the Chinese Educational Bureau to assess Mandarin Chinese learners' language and culture knowledge.

**2405 Mandarin Chinese IV****Grades 11, 12 1 credit**

In Mandarin Chinese IV, students will further develop their skills in grammatical structures. The course places emphasis on applying grammatical structures into speaking and writing tasks. Students continue the development of all four language skills using the textbook's high-interest topics, such as the world of employment, sports and activities, travel, and society. Students will read original texts containing characters only to strengthen their reading skills.

**Prerequisites:** Successful completion of Mandarin Chinese III with at least a C test average, and the recommendation of the teacher.

**2415 Honors Mandarin Chinese IV****Grades 11, 12 1 credit**

In addition to covering the Mandarin Chinese IV material at an accelerated pace and in more depth, students in Mandarin IV Honors complete three independent projects associated with the textbook material. Each project includes one long primary source reading and several speaking and writing tasks. Students are asked to either write a report or give a presentation by the end of each project.

**Prerequisites:** Successful completion of Honors Mandarin Chinese III or Mandarin Chinese III and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

## **Mandarin Chinese V**

**Grades 11, 12**

**1 credit**

This advanced course is designed for students to improve their listening, speaking, reading, and writing proficiency in Mandarin. Specifically, students will be able to understand sentence-length utterances, apply internalized grammar rather than relying solely on memorized material, and make speeches or write short narratives and essays on the world's trending topics. Students will read supplementary materials with original texts to comprehend Chinese traditional/contemporary culture. Chinese is the main medium in the classroom.

***Prerequisites:** Successful completion of Mandarin 4 with at least a B test average and the recommendation of the World Languages Department*

## **2425 AP Mandarin Chinese** 🇨🇳

**Grades 11, 12 1 credit**

The AP course prepares students to demonstrate their level of Chinese proficiency across the three communicative modes (interpersonal, interpretive, and presentational). Its aim is to provide students with ongoing and varied opportunities to further develop their proficiencies across the full range of language skills within a cultural frame of reference reflective of the richness of Chinese language and culture. The course focuses on language proficiency while interweaving level-and age-appropriate cultural content throughout the course. The teacher provides formative assessments of students' developing language skills within the context of their learning.

***Prerequisites:** Successful completion of Honors Mandarin Chinese IV and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)*

## **Spanish**

### **2221 Spanish I**

**Grades 9, 10, 11, 12 1 credit**

Beginning students concentrate on acquiring the four skills of listening, speaking, reading and writing. The focus is on communication with an oral/aural approach to learning vocabulary and grammar. Pertinent aspects of Hispanic culture are introduced.

### **2244 Spanish II**

**Grades 9, 10, 11, 12 1 credit**

In this course the four skills of listening, speaking, reading, and writing continue to be stressed with a primary focus on communication. The course is designed to help students develop linguistic proficiency and cultural sensitivity by interweaving language and culture.

***Prerequisite:** Successful completion of Spanish I with at least a C test average, and the recommendation of the teacher.*

### **2242 Honors Spanish II**

**Grades 9, 10, 11, 12 1 credit**

In addition to covering the Spanish II material at an accelerated pace and in more depth, students in Honors Spanish II complete one additional chapter in the text and three short readers. In preparation for the National Spanish Exam given in the spring they also learn additional vocabulary and grammatical concepts. Spontaneous oral work and extensive writing are integral components of this course.

***Prerequisites:** Successful completion of Spanish I and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)*

### **2254 Spanish III**

**Grades 10, 11, 12 1 credit**

This course gives students the opportunity to continue the development of the four language skills (listening, speaking, reading and writing) by using the vocabulary and the grammatical structures learned. This course includes a review of all basic grammar structures. Further development of more difficult structures is completed through written and oral exercises. A significant part of the course is devoted to listening exercises and to spontaneous conversation using the new vocabulary and with a focus on pronunciation.

***Prerequisites:** Successful completion of Spanish II and at least a C test average, and the recommendation of the Spanish II teacher.*

**2261 Honors Spanish III****Grades 10, 11, 12****1 credit**

This course gives students the opportunity to continue the development of the four language skills (listening, speaking, reading and writing) by using the vocabulary and the grammatical structures learned. The accelerated pace of this class allows for more extensive and more in depth coverage of grammatical points and for additional reading, speaking and writing opportunities. The students in this level complete an additional chapter in the Realidades textbook, and an additional chapter in the Schaum's textbook. Tests for this level require more compositions and a deeper understanding of the material. On all evaluations in this course, students are expected to perform with superior accuracy and fluency. Students also are expected to be able to work independently.

**Prerequisites:** Successful completion of Honors Spanish II or of Spanish II with the recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2272 Spanish IV****Grades 11, 12****1 credit**

This course places emphasis on the further development of grammatical structures and speaking, reading and writing skills. Students continue the development of these skills using the textbook's high-interest topics, such as the world of employment, sports and activities, travel, and society.

**Prerequisite:** Successful completion of Spanish III with at least a C test average, and the recommendation of the Spanish III teacher.

**2271 Honors Spanish IV****Grades 11, 12****1 credit**

Spanish IV Honors, a continuation of the Honors program, is a rigorous course designed to accelerate the student's proficiency and achievement in the skills of listening, speaking, reading, and writing. Emphasis is placed on the speaking and writing skills. Students review all grammatical concepts presented in Spanish III Honors, and complete their study of advanced structures and their applications. Reading and discussion topics include the culture of Spain and Latin America, as they are presented in the selected readings. Students read advanced works, as well as articles from authentic sources. Students are expected to complete independent projects including many compositions and comprehensive group projects on Hispanic culture and customs. Students also study additional vocabulary in preparation for the National Spanish Exam.

**Prerequisites:** Successful completion of Honors Spanish III or Spanish III and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)

**2281 Spanish V****Grade 12****1 credit**

The selected readings in this course include essays, letters, poems and short stories. Oral and written reports focusing on the history, geography, culture and current events of Spanish speaking countries are assigned regularly. A review and refinement of grammatical structures learned during previous years is included.

**Prerequisites:** Successful completion of Spanish IV with at least a B test average and recommendation of the World Languages Department.

**2301 AP Spanish Language and Culture** **Grade 12****1 credit**

This one-year college-level course is intended for those students who wish to develop their proficiency in Spanish. The course emphasizes the development of the student's abilities to understand spoken Spanish, to read, and to express ideas orally and in writing with reasonable fluency. This course gives students the opportunity to continue the development of the four language skills—listening, speaking, reading, and writing—through a systematic review and expansion of syntactical structures, vocabulary expansion, selected readings, oral exercises, and communicative activities. Upon successful completion of this course, students are able to function at the intermediate-high level of proficiency in the four language skills. Students are prepared for and required to take the AP Spanish Language and Culture exam in May.

**Prerequisites:** Successful completion of Honors Spanish IV or Honors Spanish III and recommendation of the World Languages Department based on the Honors/AP Level Requirements. (See above page 39.)