## COURSE CATALOG

## OUR MISSION:

To inspire academic excellence, nurture personal growth and foster integrity and compassion in young men of diverse talents, backgrounds, and beliefs through our Catholic, Holy Cross tradition.

## OUR VISION:

To be a transformative leader in educating the minds and hearts of young men by maximizing innovation, tradition, and the strength of our community to empower every Notre Dame student to realize his full potential.

## OUR CORE VALUES:

Innovation: We embrace innovative teaching practices and support diverse learning styles to help students become flexible, independent, 21 st century thinkers

Tradition: Notre Dame High School remains anchored in the Holy Cross mission to educate the minds and hearts of young men.

Transformation: We help develop each Notre Dame Student into a young man of character, compassion, and confidence who is college- and life-ready.


## OUR PHILOSOPHY:

Notre Dame High School is a Catholic independent secondary school admitting students of any race, nationality or religion to all the rights, privileges, programs and activities generally made available at the School. Its primary purpose is to assist the parents and guardians of its students in the education of their sons by providing a college preparatory curriculum. Notre Dame is founded upon the Catholic philosophy in the Holy Cross tradition which offers the student a greater appreciation of his personal worth and dignity as a creature of a loving God and of the equality of all human life. A Notre Dame education offers a holistic approach which develops integrity, independence, leadership, and values. Notre Dame High School further fosters an environment where students, administration, faculty, and parents or guardians work together toward faith development, moral self-discipline, and academic excellence.

## ACADEMIC GUIDELINES

## GRADUATION REQUIREMENTS:

## Class of 2025 and Class of 2026

The minimum course requirements to be eligible to receive a diploma for the Class of 2025 and The Class of 2026 from ND are:

| Religious Studies | 4 credits |
| :--- | :--- |
| English | 4 credits |
| Social Studies | 3 credits |
| Math | 4 credits |
| Science | 3 credits |
| Foreign Language | 2 credits |
| Fine Arts | 0.5 credit |
| Life Skills | 0.5 credit |
| Physical Education | 0.5 credit |
| Experiential Learning | 2 credits |
| Electives | 2.5 credits |
| TOTAL CREDITS REQUIRED FOR GRADUATION ARE 26.00 |  |

## Class of 2024

The minimum course requirements to be eligible to receive a diploma for the Class of 2024 from Notre Dame High School are:

| Religious Studies | 4 credits |
| :--- | :--- |
| English | 4 credits |
| Social Studies | 3 credits |
| Math | 4 credits |
| Science | 3 credits |
| Foreign Language | 2 credits |
| Fine Arts | 0.5 credit |
| Life Skills | 0.5 credit |
| Physical Education | 0.5 credit |
| Experiential Learning | 1.5 credits |
| Electives | 2.5 credits |
| TOTAL CREDITS REQUIRED FOR GRADUATION ARE 25.50 |  |

## Class of 2022 and Class of 2023

The minimum course requirements to be eligible to receive a diploma for the Class of 2022 and the Class of 2023 from ND are:

| Religious Studies | 4 credits |
| :--- | :--- |
| English | 4 credits |
| Social Studies | 3 credits |
| Math | 4 credits |
| Science | 3 credits |
| Foreign Language | 2 credits |
| Fine Arts | 0.5 credit |
| Life Skills | 0.5 credit |
| Physical Education | 1.0 credit |
| Experiential Learning | 1 credits |
| Electives | 2 credits |

TOTAL CREDITS REQUIRED FOR GRADUATION ARE 25.0

Course Levels: All courses are college preparatory. Levels are assigned to courses based on content, Level of difficulty of texts, the nature and difficulty of assignments and projects, as well as the pace of instruction. Students are placed in Levels based on past academic record and the results of the Admissions Test.

Level * - Enrichment - courses not included in overall weighted average

Level I - College Preparatory - courses emphasize study skills within the content area

Level 2 - Accelerated College Preparatory courses are challenging to the average student

Level 3 - Honors - courses are Honors Level
Level 4 - Advanced Placement Courses International Baccalaureate Early College Experience Courses

Honor Roll: Course Levels do not affect Honor Roll status. All courses are treated equally and considered in calculations for the marking period average.

Overall Weighted Average: All final grades received in courses designated as Level I through 4 will be used to determine the overall weighted average.A course designated as belonging to the Level * category, although important and necessary to the curriculum, will not be included. Transfer students' grades will be converted into our grading system and used to determine their overall weighted average.

## ACADEMIC POLICIES

Academic Probation: A student who continues to demonstrate a lack of academic achievement may be placed on Academic Probation with specific terms for continued enrollment.

Course Changes: All course changes are made through the School Counseling Office. Courses that are dropped after seven teaching days will have a WP (Withdrawal Pass) or WF (Withdrawal Fail) recorded on the report card and permanent record.

Course Failures: If a student receives a final average below $65 \%$ at the end of the course, it must be made up in an approved summer school. Any student who loses three credits because of failure, or who does not make up a course or credit in an approved summer school, or who fails a required course in summer school, typically must withdraw from Notre Dame High School.

Academic Course Load: All students are required to take a minimum of six credits per year. In all cases, four (4) of the courses must be from Levels I through 4 and the remaining may be from any of the five Levels. In exceptional cases, the Vice President for Academic Affairs or Vice President for Student Success may adjust these regulations after serious consideration.

## INDEX

ACADEMIC GUIDELINES ..... 2
ACADEMIC POLICIES ..... 3
ACADEMIC OFFERINGS ..... 4
INTERNATIONAL BACCALAUREATE PROGRAM ..... 6
SIGNATURE PROGRAMS ..... 15
ENGLISH DEPARTMENT ..... 19
FAITH FORMATION DEPARTMENT ..... 23
FAITH FORMATION COURSES. ..... 25
FINE ARTS DEPARTMENT ..... 27
VIDEO PRODUCTION PROGRAM. ..... 29
MATHEMATICS DEPARTMENT ..... 30
MODERN AND CLASSICAL LANGUAGE DEPARTMENT ..... 33
SCIENCE DEPARTMENT ..... 36
SPORTS MEDICINE PROGRAM ..... 40
ENGINEERING PROGRAM ..... 41
SOCIAL STUDIES DEPARTMENT ..... 43
PHYSICAL EDUCATION DEPARTMENT. ..... 46

## ACADEMIC OFFERINGS

A typical four-year program would be:

## Freshmen

Jesus the Church and Holy Cross or Jesus the Church and Holy Cross Moreau Honors
English I or English I Moreau Honors
Algebra I, Honors Algebra I, or Honors Algebra II Western Civilizations or World Cultures Moreau Honors Foreign Language or Developmental Reading
Fine Art
Conceptual Physics or Honors Conceptual Physics

## Sophomores

Hebrew Scriptures or Hebrew Scriptures Moreau Honors
English II or English II Moreau Honors Algebra II or Honors Algebra II

Chemistry or Honors Chemistry
Foreign Language
Fine Art or Physical Education IO Life Skills

## Juniors

Christian Morality and Christian Doctrine
English III American Literature or English III or Honors American Literature or AP English Composition
U.S. History or Honors US History or AP U.S. History Geometry or Honors Geometry and Honors Trig Biology or Honors Biology or Biology L4
Foreign Language and/or an Elective

## Seniors

Global Issues, Psychology and Religion, Comparative Religions or Peer Counseling
English IV World Literature or Honors World Literature or AP English Literature and an English Elective
U.S. Government or Honors US Government and Modern US History or Honors Modern US History or AP U. S. Government \& Politics
+3.5 credits of electives

Academic Center: The Notre Dame High School Academic Center provides students with documented learning disabilities services during regularly scheduled sessions, which meet during the students' study periods. The academic support services are designed to help students become confident, independent learners with a solid foundation of skills required to achieve educational success.

National College Athletic Association Requirements: In order to participate in Division I or II athletics, students must meet the initial-eligibility rules. Please check with a school counselor or the website www.ncaaclearinghouse. net for the specific requirements. In general, a student must have a minimum grade point average of a 2.0 on a 4.0 scale in the core curriculum and meet a minimum SAT/ACT score. The minimum SAT/ACT score students can receive is based on overall grade point averages. Courses with NCAA listed next to their Level are all considered core courses. If you have any questions concerning the NCAA requirements, please see your school counselor for more details.

Advanced Placement Courses: Presently, Notre Dame High School offers the following Advanced Placement courses: Calculus AB, English Composition and Literature, Government \& Politics, Italian, Physics, Spanish, and U.S. History. Additional AP courses are also available in the Virtual High School. The Advanced Placement examinations are offered in May by the College Board. Students who do well on these exams may receive college credit from the college they eventually attend. Students enrolled in Advanced Placement courses are highly encouraged to take the AP exam. If a student does not take the AP Exam, he will have to take the final exam in the course regardless of his average.

University of Connecticut Early College Experience: UConn Early College Experience (ECE) provides academically motivated students the opportunity to take university courses while still in high school. These challenging courses allow students to preview college work, build confidence in their readiness for college, and earn UConn college credits that provide both an academic and a financial head start on a college degree. ECE instructors, who are certified as adjunct professors by UConn faculty, create a classroom environment fostering independent learning, creativity, and critical thinking - all pivotal for success in college. Notre Dame offers ECE courses in English, Science, and Foreign Language. To support rigorous learning, University of Connecticut library resources are also available to students. ECE students must successfully complete the course with a grade of $C$ or better to receive university credit. University credits are usually transferable to other universities. Students are charged a fee per credit by the University of Connecticut. For additional information visit: www.ece.uconn.edu.

The International Baccalaureate Diploma Program: A two-year program starting in the junior year. Students apply and are interviewed to gain admission to the program in their sophomore year. Admitted students take six courses in the junior and senior year in all areas of human knowledge which are externally assessed with exams created by the IB organization and internally assessed with in-class work, samples of which are then moderated by the organization. These assessments taken together produce a final IB exam grade which is on a scale of I to 7 with a 4 being considered a passing score. In addition to the six courses, most of which are two years in length, students also take the Theory of Knowledge course.TOK is a course where students are asked to consider, discuss, and write about the interdisciplinary nature of knowledge, to consider the strengths and limitations of how we know, and to see how each of the disciplines they take in IB work in the real world. IB students also write a 4,000 -word Extended Essay over the two-year period on a topic of their choice. This essay is an exposure to serious academic writing, advised by an IB teacher of the student's choosing, that is designed to sharpen critical thinking, research, and writing skills. Finally, students in the IB participate in activities through the Creativity, Action, and Service requirement that enrich their lives outside of the classroom, require that they reflect and write about their experiences, and that can serve to focus areas of future life interests. Students who complete all IB requirements and pass their examinations earn the IB Diploma, considered a gold standard in preuniversity education.

Virtual High School: Virtual High School: Notre Dame High School students are able to take online courses through our partnership with the Virtual High School (VHS). This provides students with the opportunity to take standards-based, student centered, online courses that expand their educational opportunities and help develop 21st century skills. There are presently more than 200 courses offered, and they are designed and delivered to promote a high quality collaborative learning environment in which student exchange and interaction is a valued component of the instructional process. Courses matriculated through the Virtual High School will be posted on the student's transcript. These courses will be included in the student's GPA and will be added to the credits required for graduation. Students need an overall 88 average and permission from their school counselor in order to matriculate VHS courses. For additional information, please visit www.govhs.org.

## INTERNATIONAL BACCALAUREATE PROGRAM


#### Abstract

The International Baccalaureate Program was started in Geneva, Switzerland in 1968 as a way to allow families that relocated frequently for business from country to country to have a common curriculum that could be offered at the schools where they enrolled their children. Soon, the strength of the program made it attractive to all different types of schools, including private and Catholic schools, There is a strong interface between the IB and Notre Dame's commitment to educate young men in the Holy Cross Tradition, men with the Character to Lead, the Compassion to Serve, and the Confidence to Excel. Its focus on offering a two year, rigorous but intellectually engaging pre-university curriculum has blossomed into an organization that services over 1.4 million students in almost 5,000 schools in 150 countries. The IB has become the gold standard for education worldwide. For our school, the IB will be the program where our most hard-working and intellectually curious students will want to be. With a focus on developing strength in all subject areas, the program seeks to foster creative, critical thinkers who can think globally and act locally to make their world a better place. The program also creates a resilience that serves students well in college and beyond and produces strong writing, research, and presentation skills that serve students well regardless of career choice. An IB Diploma will greatly enhance an ND graduates' credentials for college admission both nationally and abroad. The IB Diploma serves as proof of a strong work ethic and a desire to understand beyond the surface. The sum of the IB experience is that IB graduates will not only be better prepared for college, but they will also be able and willing to engage in a world with growing challenges that require critical thinking, compassion, and an understanding of cultural differences.


## Requirements of the IB Program

The International Baccalaureate is a two-year program starting in the junior year. Students apply and are interviewed to gain admission to the program in their sophomore year.Admitted students take six courses in the junior and senior year in all areas of human knowledge which are externally assessed with exams created by the IB organization and internally assessed with in-class work, samples of which are then moderated by the organization. These assessments taken together produce a final IB exam grade which is on a scale of I to 7 with a 4 being considered a passing score. In addition to the six courses, most of which are two years in length, students also take the Theory of Knowledge course.TOK is a course where students are asked to consider, discuss, and write about the interdisciplinary nature of knowledge, to consider the strengths and limitations of how we know, and to see how each of the disciplines they take in IB work in the real world. IB students also write a 4,000 -word Extended Essay over the two-year period on a topic of their choice. This essay is an exposure to serious academic writing, advised by an IB teacher of the student's choosing, that is designed to sharpen critical thinking, research, and writing skills. Finally, students in the IB participate in activities through the Creativity, Action, and Service requirement that enrich their lives outside of the classroom, require that they reflect and write about their experiences, and that can serve to focus areas of future life interests. Students who complete all IB requirements and pass their examinations earn the IB Diploma, considered a gold standard in preuniversity education.

## The Flexibility of the IB Program

The IB allows students to select some coursework to more closely parallel their interests and preparation for university study.

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IB Science \& Math track <br> English <br> Spanish/Latin <br> History <br> Biology <br> Math <br> Physics <br> | IB Languages track | IB Social Sciences track |
| :--- | :--- |
| English | English |
| Spanish | Spanish |
| History | History |
| Biology | Biology |
| Math | Math |
| Latin | Psychology |

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## IB Arts track

English
Spanish
Psychology
Biology
Math
Music/Visual Art

## Distinction between Higher Level (HL) and Standard Level (SL) Courses

Courses in the IB are designated as either high level (HL) or standard level (SL).Theory of Knowledge is the only IB course that does not receive either designation, being considered a "Core Requirement". HL courses involved students learning for at least 240 hours over a two year period, whereas SL courses carry a reduced requirement of I50. Generally, SL courses are still taught over a two year period (such as in SL Spanish and Math) to provide students with sufficient background and practice to deepen their understanding and learning. Some courses, such as Psychology or SL Science courses need only be one year courses. IB examinations do hold HL subjects as areas of specialization and therefore are treated more stringently in terms of the need for these exams to be passed.

## Earning the IB Diploma

To earn the IB Diploma, a student must pass their exams (24 points on their six exams out of a possible 42 is the threshold for passing, although there are some exceptions such as receiving less than a passing grade on two HL subjects), submit an Extended Essay to IB that receives a passing grade, complete the internal requirements for the TOK course, and submit their CAS portfolio with evidence of participation and reflection. The three Core Requirements are graded on a matrix that can earn students an additional 3 points depending on the quality of work submitted. IB notifies students in July after graduation as to whether they received the Diploma. Those students who do not receive the IB Diploma will still receive their Notre Dame Diploma if they fulfill all the requirements, and can also receive college credit for exams passed. Colleges and Universities have particular policies on awarding college credit for IB courses passed, but all see participation as a strong indicator of strong college preparation.

## IB Courses Offered at Notre Dame

The IB divides courses into six groups: Studies in Language and Literature, Language Acquisition, Individuals and Societies, Sciences, Mathematics, and The Arts. Students must take at least one course from each group. In place of a course from the Arts, a student can select a course from another group except mathematics.TOK is considered a Core Requirement and is not placed in any of these groups.

## Studies in Language and Literature

## IB English: Language and Literature (HL) I

IB English: Language and Literature $(\mathrm{HL}) \mathrm{I}$ is a two-year course that introduces the critical study and interpretation of written and spoken texts from a wide range of literary forms and non literary text-types. The course is organized into three areas of exploration and seven central concepts, and focuses on the study of both literary or non-literary texts. Together, the three areas of exploration of the course allow the student to explore English through its cultural development and use, its media forms and functions, and its literature. This first year focuses on creating a learner portfolio, which is a place for a student to explore and reflect upon literary and non-literary texts, and to establish connections among them and with the areas of exploration and the central concepts in the subject. Students will also start work on their HL essay, which develops a particular line of inquiry of their own choice in connection with a non-literary text, a collection of non-literary texts by one same author, or a literary text or work studied during the course. Finally, students will prepare for their individual oral assessment, in which they examine the ways in which the global issue of their choice is presented through the content and form of one of the works and one of the texts that they have studied. The individual oral is based on the exploration the student has carried out in the learner portfolio.

## IB Language and Literature (HL) II

IB English: Language and Literature (HL) II is a continuation of IB English: Language and Literature (HL) I. This second year continues the critical study and interpretation of written and spoken texts from a wide range of literary forms and non-literary text types. Students continue to develop their portfolios and use them to make critical decisions to prepare for their assessments this year. Students prepare for paper I, which contains two previously unseen non-literary passages. Students are instructed to write a separate guided analysis of each of these passages. A guided analysis in this context refers to an exploration of the passage supported by a guiding question that asks the students to consider a technical or formal aspect of the passage. Students also prepare for Paper 2, which requires students to use a prepared guiding question to write a comparative essay referring to two works studied during the course. Students leave the program with a profound understanding of how meaning is constructed within belief or value systems, and how it is negotiated across multiple perspectives generated by single or multiple readers. They are able to think critically about texts, as well as responding to, producing, or performing them, leading to an understanding of how language sustains or challenges ways of thinking and being.

## Language Acquisition

## IB Spanish (SL) I/II

IB Spanish SL (standard level) is a 2 year language course conducted in the target language which extensively builds upon the reading, writing, speaking and listening skills developed in previous levels. The standard level track introduces students to the IO attributes of the IB Learner Profile, the five prescribed themes covered throughout the 2 years, and internal as well as external exam review that is conducted in the 2nd year of study. This course promotes intercultural understanding and respect among Global minded citizens who feel committed to create a better and more peaceful world. Students will prepare for IB external assessments for May of Senior Year.

## IB Spanish (HL) I/II

IB Spanish HL (higher level) is a 2 year language course conducted in the target language which extensively builds upon the reading, writing, speaking and listening skills developed in previous levels. This higher level track engages students' critical receptive skills, engaging them to create oral presentations with fluency and accuracy to prepare for individual oral assessments and respond to written texts in the five prescribed themes covered throughout the 2 years. Students at this level articulate in a strong command of the target language and field questions to SL students to practice listening comprehension and oral communication. Internal and external exam review is conducted to prepare for assessments for the IB Diploma. This course continues promoting intercultural understanding and respect among Global minded citizens who feel committed to create a better and more peaceful world. Students will prepare for IB external assessments for May of Senior Year.

## IB ab initio Spanish or Italian (SL) I/II

The ab initio (Latin for "from the beginning") is a 2 year course for students with no prior experience of a second language, or for those students with very limited previous experience. Students develop the ability to communicate in Spanish or Italian through the study of language, themes and texts. In doing so, they also develop conceptual understandings of how language works. Communication is evidenced through receptive, productive and interactive skills across a range of contexts and purposes that are appropriate to the level of the course.The Spanish and Italian ab initio syllabus is organized into five prescribed themes: identities, experiences, human ingenuity, social organization and sharing the planet. Students will prepare for IB external assessments for May of Senior Year.

## IB Latin (SL) I/II

IB Latin SL (standard level) is a 2 year language course focused on applying the grammatical skills acquired in previous courses to reading a broad range of unadapted Latin literature. The standard level track has a core set of texts that are explored in depth, which are supplemented with readings taken from the many different genres, eras, and regions for which Latin was a mode of expression. Detailed discussion of the nuances of the language are balanced with examinations of the various social, cultural, and historical questions that arise from the study of the ancient world, as preparation for both the formal internal and external assessments that are administered in the 2 nd year of study. Focus is also given to the connections between the classics and other areas of study, as well as the metacognitive considerations that are raised in the TOK (Theory of Knowledge) course. Students will prepare for IB external assessments for May of Senior Year.

## IB Italian (SL) I/II

IB Italian is a 2 year language course conducted in the target language which extensively builds upon the reading, writing, speaking and listening skills developed in previous levels. This course promotes intercultural understanding and respect among Global minded citizens who feel committed to create a better and more peaceful world. The standard level track introduces students to the 10 attributes of the IB Learner Profile, the five prescribed themes covered throughout the 2 years, and internal as well as external exam review that is conducted in the 2nd year of study. Students will prepare for IB external assessments for May of Senior Year.

## Individuals and Societies

## IB History of the Americas (HL) I

IB History of the Americas I will cover various topics focused on the region of the Americas. United States History will be a primary focus with comparative cases from other countries in the region. Main topics will include: US Civil War: causes, course and effects (I840-I877), Emergence of the Americas in global affairs (I880-1929), and The Great Depression and the Americas (mid 1920s-1939). Students will also be required to complete a historical investigation into a topic of their choice. The emphasis must be on a specific historical inquiry that enables the student to develop and apply the skills of a historian by selecting and analyzing a range of source material and considering diverse perspectives.

## IB History of the Americas (HL) II

IB History of the Americas (HL) II is a continuation of IB History of the Americas (HL) I and covers various topics focused on the region of the Americas. World History will be a primary focus with comparative cases from countries around the world. Main topics will include: Causes and effects of 20th century wars, The Cold War: Superpower tensions and rivalries (20th century), and The struggles for rights and freedoms in the mid20th century. Students will prepare for IB external assessments for May of Senior Year.

## IB Psychology (SL)

IB Psychology teaches students to develop an understanding of how psychological knowledge is generated, developed and applied and will allow them to have a greater understanding of themselves and appreciate the diversity of human behavior. The course teaches students to develop and apply an understanding of the biological, cognitive and sociocultural factors affecting mental processes and behavior and to understand diverse methods of inquiry and the importance of ethical practice in psychological research in general and observe ethical practice in their own inquiries and how to ensure that ethical practices are upheld in all psychological inquiry and discussion. Students complete the Experiment component of the Internal Assessment and prepare for the IB External Assessment given in May.

## IB Design Technology (SL/HL)

Design technology is the study of how the resultant development of new technologies has given rise to profound changes in society: transforming how we access and process information; how we adapt our environment; how we communicate with others; how we are able to solve problems; how we work and live. Design is the link between innovation and creativity, taking thoughts and exploring the possibilities and constraints associated with products or systems, allowing students to redefine and manage the generation of further thought through prototyping, experimentation, and adaptation. Students will complete the Group 4 project component of the Internal Assessment. Students will prepare for IB external assessments for May of Senior Year.

## Sciences

## IB Biology (HL) I

IB Biology (HL) is a 2 year course that teaches students to become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, the emphasis is on a practical approach. In addition, through the overarching theme of the "Nature of Science" knowledge and skills will be put into the context of the way science and scientists work in the 21 st Century and the ethical debates and limitations of creative scientific endeavor. Students have opportunities to design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers and evaluate and communicate their findings. The investigations may be laboratory based or they may make use of simulations and data bases. IB Biology I concentrates on overarching concepts that connect all aspects of Biology, Microscopy, Cells, and Cell Processes, Cellular Respiration and Photosynthesis, an introduction to Molecular Biology, and DNA and Mendelian Genetics. Students will begin the practical interdisciplinary Group 4 project component of the Internal Assessment.

## IB Biology (HL) II

IB Biology (HL) II is a continuation of IB Biology I in which students continue to explore the way science and scientists work in the 2Ist century and develop the skills to work independently on their own design and collaboratively to mirror the way in which scientific research is conducted in the wider community. IB Biology II concentrates on Genetic Technology, Evolution, Plant Structure and Function, Human Body Systems, and Ecology. Students will complete the Group 4 project component of the Internal Assessment, short-term and long-term experiments and investigations, and prepare for IB external assessments for May of Senior year.

## IB Physics

IB Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself from the very smallest particles-currently accepted as quarks, which may be truly fundamental-to the vast distances between galaxies. The Diploma Programme physics course allows students to develop traditional practical skills and techniques and increase their abilities in the use of mathematics, which is the language of physics. It also allows students to develop interpersonal and digital communication skills which are essential in modern scientific endeavour and are important life-enhancing, transferable skills in their own right.The Diploma Programme physics course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students

## IB Chemistry

IB Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. It is often called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment. The Diploma Programme chemistry course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students.

## Mathematics

## IB Mathematics: Analysis and Approaches (SL/HL) I

IB Mathematics:Analysis and Approaches recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. The focus is on developing important mathematical concepts in a comprehensible, coherent and rigorous way, achieved by a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solve abstract problems as well as those set in a variety of meaningful contexts. This course serves to accommodate the range of needs, interests and abilities of students, and to fulfill the requirements of various university and career aspirations. This course will enable students to develop mathematical knowledge, concepts and principles, and logical, critical and creative thinking. Students employ and refine their powers of abstraction and generalization. IB Mathematics: IB Mathematics:Analysis and Approaches I concentrates on foundational topics including functions, sequences and series, coordinate geometry, and introduction to statistics. The IB internal assessment in Mathematics is an individual Exploration. This is a piece of written work that involves investigating an area of mathematics allowing students to develop independence in mathematical learning.

## IB Mathematics: Analysis and Approaches (SL/HL) II

IB Mathematics:Analysis and Approaches II is a continuation of IB Mathematics:Analysis I with a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students should expect to develop insight into mathematical form and structure and should be intellectually equipped to appreciate the links between different topic areas. Students are encouraged to continue to develop their mathematical knowledge and thinking, and their mathematical growth in other learning environments. IB Mathematics: Analysis and Approaches II concentrates on trigonometry, probability, and calculus topics. Students will prepare for IB external assessments for May of Senior Year.

## The Arts

## IB Visual Art (SL) I

IB Visual Art (SL) I is a 2 year course in which students will experiment with a variety of media and techniques, analyze, compare, and write about artworks from different cultures and time periods, document their individual interests and media explorations, critique and reflect on their own work, skillfully present those works, and ultimately allow these activities to direct their visual art journey.

## IB Visual Art (SL) II

IBVisual Art (SL) II is a continuation of IBVisual Art for the Diploma Programme (SL) I. In the second year, this course involves preparation for the three assessed portions of the course, which include The Comparative Study, The Process Portfolio and The Exhibit. Students will be coached and provided with individual assistance in completing and submitting these final components to IB examiners.

## IB Music (SL/HL) I

IB Music (SL/HL) I is a 2 year course in which students develop their knowledge and potential as musicians, both personally and collaboratively. This course has been designed to prepare the 21 st century music student for a world in which global musical cultures and industries are rapidly changing. The course is grounded in the knowledge, skills and processes associated with the study of music and offers a strengthened approach to student creativity through practical, informed and purposeful explorations of diverse musical forms, practices and contexts. The course also ensures a holistic approach to learning, with the roles of performer, creator and researcher afforded equal importance in all course components. In IB Music (SL/HL) I students explore IB Music involves aspects of the composition, performance and critical analysis of music, and exposes students to forms,
styles and functions of music from a wide range of historical and socio-cultural contexts. Students create, participate in, and reflect upon music from their own background and those of others. They develop practical and communicative skills which provide them with the opportunity to engage in music for further study, as well as for lifetime enjoyment.

## IB Music (SL/HL) II

IB Music (SL/HL) II is a continuation of IB Music (SL/HL) I in which students explore a range of musical contexts and make links to, and between, different musical practices, conventions and forms of expression. Students acquire, develop and experiment with musical competencies through a range of musical practices, conventions and forms of expression, both individually and in collaboration with others. Students will evaluate and develop critical perspectives on their own music and the work of others. Higher level $(\mathrm{HL})$ music students are required to study musical perception and are required to present both creating and solo performing.

## IB Core Requirements

## Creativity, Activity, and Service (CAS)

Creativity, activity, service (CAS) is at the heart of the DP.With its holistic approach, CAS is designed to strengthen and extend students' personal and interpersonal learning organized around the three strands of creativity, activity and service defined as follows.

- Creativity-exploring and extending ideas leading to an original or interpretive product or performance.
- Activity-physical exertion contributing to a healthy lifestyle.
- Service-collaborative and reciprocal engagement with the community in response to an authentic need.

CAS aims to develop students who enjoy and find significance in a range of CAS experiences and purposefully reflect upon their experiences. Students identify goals, develop strategies and determine further actions for personal growth, and explore new possibilities, embrace new challenges and adapt to new roles. Students actively participate in planned, sustained and collaborative CAS projects and understand they are members of local and global communities with responsibilities towards each other and the environment.

The CAS programme formally begins at the start of the DP and continues regularly for at least 18 months with a reasonable balance between creativity, activity and service. A CAS experience must: fit within one or more of the CAS strands; be based on a personal interest, skill, talent or opportunity for growth; provide opportunities to develop the attributes of the IB learner
Profile; not be used or included in the student's DP course requirements.
All CAS students are expected to maintain and complete a CAS portfolio as evidence of their engagement with CAS. The CAS portfolio is a collection of evidence that showcases CAS experiences and student reflections; it is not formally assessed. CAS students have guidance at the school level through a variety of resources including the school's CAS handbook, information sessions and meetings. In addition, students have three formal interviews with the school's CAS coordinator/adviser. Typically, students' service experiences involve the following stages: I) Investigation, preparation and action that meets an identified need; 2) Reflection on significant experiences throughout to inform problem-solving and choices; 3) Demonstration allowing for sharing of what has taken place.

## IB Theory of Knowledge/Religion (TOK) I

Theory of knowledge (TOK) is a course about critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. It plays a special role in the DP by providing an opportunity for students to reflect on the nature of knowledge, to make connections between areas of
knowledge, and to become aware of their own perspectives and those of the various groups whose knowledge they share. The overall aim of TOK is to encourage students to formulate answers to the question "how do you know?" in a variety of contexts, and to see the value of that question. Students in year I of TOK will complete their Exhibition component of the internal assessment

## IB Theory of Knowledge/Religion (TOK) II

IB TOK 2 is a continuation of IB TOK I and continues to develop critical thinking and inquiry skills. As a core requirement of the IB Program, students continue to explore how knowledge is connected across disciplines and how their own perspectives shape that knowledge. Students will prepare for IB external assessments for May of Senior Year.

## The Extended Essay

The extended essay is an in-depth study of a focused topic of some 4,000 words, chosen from the list of available Diploma Programme subjects for the session in question. This is normally one of the student's six chosen subjects for those taking the IB diploma, or a subject that a course student has a background in. It is intended to promote academic research and writing skills, providing students with an opportunity to engage in personal research in a topic of their own choice, under the guidance of a supervisor (an appropriately qualified member of staff within the school). This leads to a major piece of formally presented, structured writing, in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject chosen. It is mandatory that all students undertake three reflection sessions with their supervisor, which includes a short, concluding interview, or viva voce, with their supervisor following the completion of the extended essay.

## MOREAU HONORS

The Moreau Honors Program is a two-year program for freshmen and sophomores. This is an interdisciplinary program with an emphasis on reading, critical thinking, analytical writing and presentation skills.


> Sophomore Year

English
Religion

## Signature Programs

## LEADERSHIP PROGRAM

The Certificate in Leadership involves students following an alignment of core classes with electives and active participation in extracurricular clubs and activities beginning in the 202I-22 school year.


## Freshman Curriculum World Cultures, English \& Religion Classes



Complete Service Requirements

$\qquad$
Junior Leadership Sessions
Leadership Elective
or Peer Counseling
Senior Year

## Habitudes Curriculum:

-Tier I- Freshman

- Tier 2- Sophomores (Life Skills)
- Tier 3- Juniors (Doctrine)
- Tier 4- Seniors (Elective or P.C.)
- Tier 5- Leadership Sessions


## Signature Programs SPORTS MEDICINE PROGRAM

The Certificate in Sports Medicine involves students following an alignment of core classes with electives, beginning in the 2021-22 school year. Students will gain both classroom and clinical experience in Sports Medicine and Athletic Training while having the opportunity to explore essential elements of Exercise Physiology, Coaching, and Strength \& Conditioning.


## Signature Programs

## ENGINEERING PROGRAM

The certificate in Engineering involves the completion of one of the three tracks illustrated below.

## ENGINEERING

Track I


Specialized Course DE or CEA or AE

Track 2


Track 3


## ENGLISH DEPARTMENT

The mission of the Notre Dame English Department is to prepare our students for the demands of college reading and writing, nurturing and ease of expression, and a love for the written word. Through the literary selections, students learn empathy and reach a deeper understanding of the universal human experience through diverse voices, time periods, and cultures.

English is taken each year. Every student will demonstrate their ability to write by constructing a five paragraph essay by the end of the first semester of English I. Notre Dame High School also offers a Developmental Reading and Writing Course to which Level I English students are recommended by their counselors. In an effort to prepare our students for college entrance exams, practice SAT/ACT tests are administered. Grammar and writing skills are taught and/or reinforced at all Levels, as are vocabulary and critical reading skills for both fiction and nonfiction selections. Academic papers and projects are assigned to further our students' acquisition of the necessary research, presentation, and technology skills. Novels, which students must examine critically using print and online resources, are assigned in class.

## \#EI3A/B English I Moreau Honors

## I Credit Level 3 NCAA

This Honors English course is one component of the interdisciplinary Moreau Honors Program that integrates the English,World Cultures, and Faith Formation courses through long-term projects, and class interaction. The purpose of this course is to provide an accelerated and enriched course for students of superior ability and achievement. The course emphasizes the following skills: thinking and synthesizing, critical reading, journal writing, research methods, and collaboration. In addition to the required grammar units, outside reading, and research paper, this course surveys the elements of tragedy and entails extensive reading and independent thinking. Constructing a research paper and journal writing are course requirements. Students must also pass the Freshman Writing Assessment during the first semester.
Requirements for placement: previous record: high verbal scores on the entrance exam: signature of school counselor

## \#EI2A/B English I

## I Credit Level 2 NCAA

The central purpose of this class is to emphasize the fundamentals of writing. Students are taught the fundamentals of grammar, parts of speech, parts of a sentence, parts of a paragraph, and paragraph structure. There is a concentration on structure of paragraphs and essays. The necessity of proper citation and the structure of an MLA formatted research paper are taught. During the second semester, students are taught the skills needed to further develop their writing through the practice of pre-writing, composing rough drafts, and the construction of a thesis statement. Various forms of literature, such as the short story, novel, and poetry will be utilized throughout the semester. Constructing a research paper and journal writing are course requirements. Students must also take a Writing Assessment at the end of the first semester.
Requirements for placement: freshman status

## \#EOI A/B Reading and Writing Strategies

## I Credit Level I

The Reading and Writing Strategies course is designed for those students in English I Level 2 who need to strengthen their skills in reading and writing. Building reading and writing skills is a primary purpose of the course and skills such as note taking, proofreading, sequencing, and synthesising are developed. Additionally the instructor will coordinate assignments so that students' work in content areas is supported and reinforced. Requirements for placement: freshman status: previous record: entrance exam results: signature of school counselor

## \#E23A/B English II Moreau Honors

I Credit Level 3 NCAA
This course provides accelerated study for students of superior ability and achievement. English II Honors builds on the cross-curricular program of Moreau Honors English I in that ethical issues and themes from the sophomore Faith Formation course are traced throughout the literature read in English. Students develop critical thinking, reading, and writing skills through assignments that require them to make independent connections across time periods, literary genres, and academic disciplines. Students are required to prepare and present oral reports, speeches, and recitations from memory, as well as develop audio/visual presentations. Vocabulary is assigned frequently. An academic paper, journal writing, and a grammar unit are requirements of this course. Requirements for placement: 85 in English I Honors: 90 in English I LV2 and successful completion of writing assessment: signature of English teacher

## \#E22A/B English II

I Credit Level 2 NCAA
Designed to acquaint students with a variety of authors, themes, and literary genres, the course's emphasis is to have students recognize literary devices and themes as they occur in literature. Vocabulary is assigned frequently and short themes are assigned to perfect the students' writing abilities. This course uses novels and a variety of genres and shorter selections. In addition, an academic paper, journal writing, a grammar unit, and oral presentations are required.
Requirements for placement: sophomore status
Juniors are required to take two semesters of English. Advanced Placement Language is a two semester class which fulfills this requirement. American Literature Level 3 and 2 are one semester classes. Students in these classes must take a second English class and can select one course from the English electives.

## \#E34A/B English III

I Credit Level 4 NCAA
This is a college Level course offered to prepare students for the Advanced Placement Language and Composition examination, which is offered in May. Students enrolled in this course are encouraged to take the Advanced Placement Exam. This course requires students to develop evidencebased analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite sources and text to support their arguments. Students taking this course must be prepared to read and analyze text to examine its rhetorical elements, literary techniques, and stylistic devices and write about how those elements impact texts. This course is intended for the student who is capable and willing to manage a substantial amount of writing. Grammar, standard written English, and vocabulary preparation are stressed. Academic papers, the dialectical journal, and projects are requirements of this course.
Requirements for placement: 90 in English II Honors, 95 in English
II LV2: 90 overall average: signature of English teacher.

## \#E33A Honors American Literature 0.5 Credit Level 3

NCAA
This course approaches American Literature chronologically and is for students who have demonstrated superior ability and achievement in English II. There are extensive supplementary readings, and the focus is on more sophisticated and more frequent writing assignments. Students use and practice vocabulary on a regular basis. Academic paper and dialectical journal are requirements of this course.
Requirements for placement: 85 in English II Honors:90 in English II LV2: signature of English teacher

## \#E32A American Literature

0.5 Credit Level 2

NCAA
Intended to give students a view of American literary heritage through the various genres, this course approaches the readings chronologically. Vocabulary, and grammar study are emphasized. A study of common errors made in composition is also undertaken. Composition centers on sophisticated writing dealing with analysis of character development, style, and other literary elements. Writing is a focal point of this course, and students are required to keep a dialectical journal. In addition, a minimum of three compositions will be assigned each semester. Academic paper and dialectical journal are requirements of this course.
Requirements for placement: junior status

Junior English Second Semester Courses<br>Students registered for Honors American Literature or American Literature must select one of the following courses

## \#EE4A American Reflection

0.5 Credit Level 3 NCAA

In this class, students will gain the skills necessary to conduct college-Level research as they examine important events in American history and the literature surrounding them in order to see how they reflect change in America. Literature in this course will include not only books and short stories, but also news, opinion columns, political speeches, music, political cartoons, short stories, movies, and anecdotes. The choice of event is left to each student, and it will form the basis for a semester-long research project that will culminate in a paper and presentation on the connection between the chosen event and its reflection in American literature. By the end of the course, students will be equipped to conduct the type of research that will be required of them in college classes. Requirements for Placement: 85 in English II Honors: 90 in English II LV2: signature of English teacher

## \#EE8A African American Literature

0.5 Credit Level 2

NCAA
This course explores African American literature from the Middle Passage and Reconstruction to the Protest Movement and Modern and Contemporary literature. Students will have the opportunity to reach a deeper understanding of how African American literature has changed and shaped both American culture and identity. Representative authors include: Frederick Douglass, Langston Hughes, Zora Neale Hurston, Gwendolyn Brooks, James Baldwin, Martin Luther King, Jr., Malcolm X, Maya Angelou,Toni Morrison,AliceWalker, and AugustWilson.
Requirements for placement:junior status

## \#EE5A Literature of Mythology and Folklore 0.5 Credit Level 2 NCAA

In this Level 2 course, students will develop a thoughtful perspective on mythologies and folklore from around the world.They will engage in an exploration of different theories of the cultural meanings and functions of myth, past and present. In addition, students will be introduced to various ways of interpreting and experiencing myth and folklore as texts with oral origins. In this course students will produce projects, essays, and dialectical journal entries.
Requirements for placement: junior status
Seniors are required to take two semesters of English. Advanced Placement Literature which fulfill this requirement. Honors World Literature Level 3 and World Literature Level 2 are one semester classes. Students in these classes must take a second English class and can select one course from the English Required Electives.

## \#E44A/B English IV, Advanced Placement Literature <br> I Credit Level 4 NCAA

The course is designed to involve students in the study and practice of writing and the study of literature. A critical approach is fostered with the view to developing a true appreciation of literary works and a facility for critical response, both oral and written. The course is intended for the student who is capable and willing to manage a substantial amount of reading and writing. The course relies heavily on student preparation and presentation of the materials presented. Grammar, standard written English, and vocabulary preparation are stressed. Academic papers, the dialectical journal and projects are requirements of this course. This is a college Level course offered to prepare students for the Advanced Placement Literature and Composition examination, which is offered in May. Students enrolled in this course are encouraged to take the Advanced Placement Exam. English IV, Level 4 is a UConn ECE approved course for college credits.
Requirements for placement: 85 in English III Level 4; 90 in Honors American Literature Level 3; 95 in American Literature Level 2; 90 overall average: signature of English teacher

## \#E43A Honors World Literature

 0.5 Credit Level 3This English course is taken during the first semester during which students will write the College Essay. This course uses longer works from mostly European authors, such as novels and plays, to hone 2 Ist century learning skills. Longer writing assignments are required and will develop students' critical reading, thinking and writing skills. Vocabulary study will support understanding of diction within the readings. Students will also prepare for the SAT and ACT tests. Academic paper and the dialectical journal are requirements of this course. Requirements for placement: 85 in American Literature Level 3: 90 in American Literature Level 2: 85 overall average or above: signature of English Department Chair

## \#E82A World Literature Level 2

### 0.5 Credit Level 2 NCAA

This English course is taken during the first semester during which students will write the College Essay. This is a survey course which stresses 21 st century learning skills and covers poetry, short stories, and excerpts from longer works. Readings are chosen from the literature of the Ancient World, Asia, Russia, Africa, Europe and Latin America and will be the basis for several writing assignments.Vocabulary study will support understanding of diction within the readings. Academic paper and the dialectical journal are requirements of this course. Requirements for placement: senior status

## Senior English Second Semester Courses

Students registered for Honors World Literature or World Literature must select one of the following courses

## \#EN6A Latin American Literature

### 0.5 Credit Level 3 NCAA

When the fantastic and magical occur in the world of an otherwise normal story, and nobody thinks it's strange, that's Magical Realism, a popular genre of Latin American Literature. Students in this Level 3 course will read works from the major authors including Gabriel Garcia Marquez and Isabel Allende, as well as other authors they influenced (Paul Auster, Louise Erdrich, Alice Hoffman, Salman Rushdie). Students may also look at Magical Realism in movies and other art forms.
Requirements for placement: senior status; 85 in the honors Level 3 English class for sophomore or junior year; 90 in the Level 2 English class for the sophomore or junior year; signature of the Junior year English teacher

## \#EE3A Communications - American Rhetoric 0.5 Credit Level 3 NCAA

This course is devoted to the study of the foundations of speech, verbal and nonverbal messages, and effective listening. It also introduces students to the major areas of human communication, emphasizing public speaking, small group, and interpersonal skills. The students focus on public speaking by preparing and delivering informative, process, and persuasive speeches that mimic real world situations such as delivering a presentation, introducing a speaker, giving instructions, or persuading a group. Students in the class practice critical thinking and listening skills by evaluating speeches in a variety of contexts. Students will use their recordings to reflect, set personal goals, and make changes in order to deliver speeches in a clear, concise, audience-appropriate manner.
Requirements for placement: senior status

## \#E72A Literature into Film

0.5 Credit Level 2 NCAA

This Level 2 course offers students the opportunity to study literary devices taught in their English classes through the medium of film. In addition to the study of literary terms and essay writing, it is the goal of the course to foster an appreciation of film. Students will be required to write analytical essays throughout the semester.
Requirements for placement: senior status

## \#EN4A Gothic Literature and Graphic Novel 0.5 Credit Level 2 <br> NCAA

Terror.Monsters. The supernatural. Gothic literature has been a major literary genre since the I8th century. Graphic novels have become a popular and respected medium to tell these stories. This course will read graphic novel versions of Gothic literature selections including Dracula, Frankenstein and Neil Gaiman's Neverwhere. Students will study Gothic elements like a thrilling psychological environment, good versus evil, horror and other elements of dark fiction. Traditional texts and graphic novels will be employed.
Requirements for placement: senior status

## FAITH FORMATION DEPARTMENT

The Faith Formation Department provides a robust and unique experience that blends together religious studies, liturgical and prayer life, retreat ministry, and service learning. Seeking to engage both the minds and hearts of students in the spirit of Blessed Basil Moreau, we provide an environment in which students develop their faith and understanding of God, in and out of the classroom.

Grounded in the Holy Cross charism and spirit, the Faith Formation Department strives to cultivate a deeper and more mature reflection on Jesus' message, Church teachings, and our individual and communal response to these. Students are presented with an academic and pastoral understanding of the Catholic faith that empowers them to make an informed and intelligent commitment to their own personal faith, life, and tradition.

## SERVICE PROGRAM

The Notre Dame High School Community lives the Gospel call to serve through the vision of the founder of the Congregation of Holy Cross, Blessed Basil Anthony Moreau. Moreau's vision is summed up in these words regarding our students:

We shall always place education side by side with instruction; the mind will not be cultivated at the expense of the heart. -BI. Basil Moreau C.S.C, Circular Letter 36, I849

Therefore, the student, being educated in the tradition of the Congregation of Holy Cross, will find the challenge to growth directed toward both his mind and his heart. Christian service is then an integral and necessary part of a Notre Dame education in the Holy Cross tradition.

The Service Program at Notre Dame High School was conceived in an effort to respond to the recent challenges of the global pandemic and our response as people of hope. More importantly, it serves to fulfill our mandate as Holy Cross people of faith to have the competence to see and courage to act.

> The mission is not simple, for the impoverishments we would relieve are not simple.There are networks of privilege, prejudice and power so commonplace that often neither oppressors nor victims are aware of them. We must be aware and also understanding by reason of fellowship with the impoverished and by reason of patient learning. For the kingdom to come in this world, disciples must have the competence to see and the courage to act.
> -Holy Cross Constitutions

## The Competence to See and Courage to Act

The service program is designed around six key components; Research, Inquiry, Engagement and Resilience, Creativity, Documentation, and Reflection. Each of these components can be found in detail on the Service Ministry Google Classroom Page. Code: vpvwpd3 A list of steps, student guide, and other resources are available here.

Teacher guidance, progress, and reflection will all be an important part of our teacher advisory program throughout the academic year.

## FRESHMEN

Members of the Class of 2025 will complete their service projects within their Teacher Advisory Class. TA Teachers and Senior Peer Counselors will guide the TA group to design their projects in September, and carry out their service projects throughout the school year.

## SOPHOMORES AND JUNIORS

Members of the Classes of 2024 and 2023 will complete their service requirements individually. Students may also work collaboratively in small groups if they choose to. Students may choose to begin their service projects during the summer months, or begin them at the onset of the new school year. Each step will have an assigned due date throughout the first semester. Steps I-3 will be due during Quarter I ,Steps 4-6 will be due during Quarter 2. All service requirements will be due by the end of the first semester.

## SENIORS

Senior service will be completed through the Social Studies Department. This will include a service requirement of volunteer work for a political campaign. The candidate will be of the student's choice.
Students will also complete a Faithful Citizenship Project connecting the political campaign to the Church's teachings.
As a Holy Cross community, we are called to inspire each other to ask the tough questions and more importantly take action.

## The Competence to See and Courage to Act

Step I: Research

- Interest Survey
- Identify areas of student civic interest
- Identify local/national/international organizations and nonprofit entities that support efforts in chosen areas of interest that serve the community.
- Suggestions: Environmental agencies, nursing homes, libraries, schools, churches, food banks, veteran affairs, Rotary, Lions, Elks, Read to Grow
Step 2: Inquire
- Choose and contact an organization and ask; How can I help? Make suggestions
- Be resilient. Don't give up. If your first choice says "no thank you" then try another

Step 3: Engagement

- Establish a contact person and become part of their team.

Step 4: Create

- Design your project. What is it you are going to do? How are you going to do it? Who are you going to serve?

Step 5: Document

- Keep records of time and activity. If permitted, take videos, pictures, etc

Step 6: Reflection and Presentation. Respond to these 6 reflection questions and make a presentation to your TA.
-Why did you choose this area of interest (Step I Research \& Step 2 Inquiry)

- Why did you choose this organization (Step I Research \& Step 2 Inquiry).
-What did you do? (Step 3 Engagement, Step 4 Create, Step 5 Documentation)
- How did this make you more caring?
- How has this challenged you, or changed your perspective?
- How did you achieve the competence to see and what gave you the courage to act?


## FAITH FORMATION COURSES

The mission of the Faith Formation Department's academic curriculum is proclaiming the Gospel of Jesus by educating both the minds and hearts of students, through the promotion of collaborative teamwork, cultural awareness, creativity, and personal reflection. It is our desire to make God known, loved, and served, as we form students into young men of intellect, compassion, justice, and love.

In addition to specific course content, each course will acquaint students with the history and distinctive and timeless spirituality of the Congregation of Holy Cross and the lives of figures such as Blessed Basil Moreau and St. André Bessette, as well the development of the Congregation in the New World. Students will also be invited to engage in Catholic Holy Cross spirituality and examine the central themes of various Holy Cross writings, and gain perspectives on the missionary and educational charisms of Holy Cross.

## \#RI4A/B Jesus the Church and Holy Cross I Credit Level 2

This two-semester introductory course examines the life and teachings of Jesus and his effect not only on human life and history itself, but on the life of the student in particular. The students study the Jesus of History-the divine Son of God who lived, preached, and healed at a particular place and time. Major topics covered include the religion of the time, the politics of the time, the Gospels and their themes, parables, miracles, and the historical events of Jesus' life. The students also study the Christ of Faith--the title for Jesus that expresses our Catholic understanding that He is our Lord and Savior today. The seven sacraments of the Catholic Church are studied as signs of His living presence in our world. They are presented as ways in which God reaches out to us in friendship and invites us to respond to a Divine Love. Major topics include the historical development, the symbols and rituals used, and the central meaning of the individual sacraments.
Requirements for placement: Freshmen status

## \#RI5A/B Jesus the Church and Holy Cross Moreau Honors I Credit Level 3

This two-semester introductory course examines the life and teachings of Jesus and his effect not only on human life and history itself, but on the life of the student in particular. The students study the Jesus of History-the divine Son of God who lived, preached, and healed at a particular place and time. Major topics covered include the religion of the time, the politics of the time, the Gospels and their themes, parables, miracles, and the historical events of Jesus' life. The students also study the Christ of Faith--the title for Jesus that expresses our Catholic understanding that He is our Lord and Savior today. The seven sacraments of the Catholic Church are studied as signs of His living presence in our world. They are presented as ways in which God reaches out to us in friendship and invites us to respond to a Divine Love. Major topics include the historical development, the symbols and rituals used, and the central meaning of the individual
sacraments.As a component of the freshman Moreau Honors curriculum, this learning experience blends with the English and Social Studies departments for an advanced humanitiesbased approach to biblical studies. Cross-curriculum projects will be a standard feature of the course.
Prerequisites: Previous record; signature of the school counselor; freshman status

## \#RIOA Hebrew Scriptures

## I Credit Level 2

Through a thorough examination of the Hebrew Scriptures/ Old Testament, this two-semester course explores God's relationship with the Abrahamic People of Israel and ourselves. Through their reading of each book of the Hebrew Scriptures, students will examine the rich historical and cultural traditions of Judaism and Islam, leading them to a deeper understanding of Jesus and the Church. Topics include creation, covenant, exodus, suffering, bearing witness, worship, and prophecy.
Prerequisites: Sophomore status

## R03A/B Hebrew Scriptures Moreau Honors I Credit Level 3

Through a thorough examination of the Hebrew Scriptures/ Old Testament, this two-semester course explores God's relationship with the Abrahamic People of Israel and ourselves. Through their reading of each book of the Hebrew Scriptures, students will examine the rich historical and cultural traditions of Judaism and Islam, leading them to a deeper understanding of Jesus and the Church. Topics include creation, covenant, exodus, suffering, bearing witness, worship, and prophecy. As a component of the sophomore Moreau Honors curriculum, this learning experience blends with the English department for an advanced humanitiesbased approach to biblical studies. Cross-curriculum projects will be a standard feature of the course. Prerequisites: Freshman/Sophomore Moreau Honors Requirements for placement: Sophomore status

## \#R32A Christian Doctrine <br> 0.5 Credit Level 2

This one semester course is designed to teach students what Catholics believe and why. The students are encouraged to see the stable, gradual nature of Catholicism. By discussing God's Word found in Scripture, the Church and Christ, and our response to God's Word, the relationship to faith is explored. Emphasis is placed on prayer and intellectual study as a means to strengthen a lifelong Catholic commitment to faith. An historical review of Church doctrines such as the Trinity, Resurrection, grace, teachings concerning Mary, and eternal life are discussed.
Requirements for placement: junior status

## \#R32B Christian Morality

0.5 Credit Level 2

This one semester course is an examination of who we are as human beings. The goal of the course is to develop an understanding of our relationship with God, our neighbor, and ourselves. The student is encouraged to look within himself, his life experience, and the society within which he lives. He is asked to study Scripture, the person of Jesus, and Church teaching. Ultimately, the course challenges the student to pull these many factors together in order to lead a coherent, reflective Christian life of service according to God's plan for us all.
Requirements for placement: junior status

## \#R52A/B Peer Counseling

## I Credit Level 2

This two semester course trains its participants in a yearlong experience of "Servant Leadership". The course begins with a required four-day summer retreat/workshop. The course stresses training in leadership, counseling, and group skills, all of which are presented as a response to the Gospel, the teaching of the Church, and the mission of the Congregation of Holy Cross.These skills are used in leading small groups, retreats, workshops, and directed service to their peers. The course seeks to take students interested in growth and equip them for lifestyles of leadership through service.
Requirements for placement: senior status; application process

## \#R42A Global Issues

### 0.5 Credit Level 2

Examining the concept of justice in human culture, this one semester course explores current social issues encountered on the local, national, and global Levels through the lens of Catholic social teaching. Topics such as genocide, environmental stewardship, war, and peace will be covered, as well as human dignity and fundamental rights of every person. Students will use references of papal encyclicals, pastoral letters of the United States Conference of Catholic Bishops, and documents of Vatican Council II.
Requirements for placement: senior status

## \#R82B Science and Religion

### 0.5 Credit Level 2

Often seen as two conflicting dominant forces, the concepts of science and religion are intensely examined in this one semester course. Students will investigate if this notion is true, or if they are parallel ways that partner in the understanding of reality and the quest for truth. There will also be the examination of the relationship between science and religion beginning with an inquiry into two important controversies: the Galileo affair and the theory of evolution. Other topics will include science vs. pseudoscience: verification and falsification in science and religion: modern cosmology and divine creation:biblical miracles and quantum mechanics: human freedom and divine action.
Requirements for placement: senior status

## \#R72A Comparative Religions

### 0.5 Credit Level 2 <br> NCAA

The purpose of this one semester course is to offer students the opportunity to examine non-Christian religious traditions. The course begins with an in-depth historical approach to the Roman Catholic Church's current teaching regarding non-Christian religions. This course helps the student appreciate the diverse world in which he lives as well as grow in respect for God's work among all people. The course aims to deepen the student's understanding of Catholicism, the dimensions of faith that are common to all humanity, and the elements of individual faith traditions that are unique.
Requirements for placement: senior status

## FINE ARTS DEPARTMENT

The Notre Dame Fine Arts Department provides students with opportunities to develop their individual artistic talents and skills within a collaborative working environment that fosters respect and encourages students to work to their highest potential.We strive to instill a lifelong appreciation for the Arts.

## ART ELECTIVES

## \#AIOA Art I

### 0.5 Credit <br> Level *

An entry level course that ensures student success. Students will create artworks in a variety of media while learning the basic Elements of Art and Principles of Design. Projects are based on a semester theme of symbolism in art.

## \#A20A Art II

### 0.5 Credit Level *

Students will build on basic skills learned in Art I.Activities in drawing, painting and sculpture are designed to help students improve art abilities while creating still life, landscape, and portrait works.

## \#A32A Art III

### 0.5 Credit Level *

Students will be able to draw on previous experience while building their repertoire of art skills. Grade II students will build a portfolio of 2-D and 3-D works to photograph and submit with their college admissions materials. Projects are individualized to meet the needs and interests of the student. Media and techniques can be traditional or digital.

## \#A42A Art IV

### 0.5 Credit Level *

Students will be solving college-level problems in creating their artworks in this advanced course. Projects will be sophisticated, and student centered, realistic and abstract, and prepare art students for working on a more elevated and elite level

## A50A World Art <br> 0.5 Credit <br> Level*

Students will imagine, create and paint artworks from various countries and cultures around the world. Expression and communication of creative ideas in a variety of media is stressed. Projects can include Asian scroll painting,Aboriginal dot painting, Mexican mask-making and other interesting forms. Students discover how to imagine, research, plan, explore, create, and improve unique creations.
Requirements for placement: Completion of Art I or Junior or Senior Status

## R5 I A Religion and Art 0.5 Credit

## Level*

Students will create art pieces that express their spirituality and reflect the traditions and symbolism of a variety of cultures and beliefs. Exploration of the historical connections between religion and art is included while creating a variety of projects.
Requirements for placement: Completion of Art I or Junior or Senior Status

## \#AAOI Portfolio Prep

### 0.5 Credit Level*

Grade II Students will build a portfolio of 2-D and 3-D works to photograph and submit with their college admissions materials. Projects are individualized to meet the needs and interests of the students. Media and techniques can be traditional or digital.
Requirements for placement: Junior status, signature of the Art teacher

## PERFORMANCE-BASED MUSIC ELECTIVES

(Performanced-based courses with mandatory concerts serving as assessments)

## \#CIOA/B Concert Chorus

## I Credit Level*

The primary purposes of this course are the development of student musicianship and vocal technique, as well as the study and performance of a variety of musical styles through the medium of choral ensemble. The chorus performs at major school concerts and liturgies and presents additional programs outside the school. Additional solo and small group performance opportunities are available to interested students. Full year course, but semesters are negotiable pending approval from music department.
Requirements for placement: signature of Fine Arts Chairperson

## \#B34A Drumline

## I Credit

## Level*

Percussion students in grades $9-12$ will work on Marching Band Stand Music as well as cadences. Students will also be able to perform completely on their own as a Drumline at football games and other performance opportunities. Percussion Ensemble Music will also be introduced as we get closer to the Christmas Concert. Students in this class are required to be in the Notre Dame Marching Band. Full year course, but semesters are negotiable pending approval from music department.
Requirements for placement: signature of Fine Arts Chairperson

## \#B32B Varsity Band

## I Credit Level *

Students will perform advanced concert band repertoire of the highest quality.All members of the Band are encouraged to take private lessons. These private lessons can be provided on site by professional musicians. Lessons will take place during Band Rehearsals, or other times such as after school or during a study hall. The first semester is dedicated to Marching Band/Pep Band music. The second semester dives into more traditional concert band music. Students in this class are required to be in the Notre Dame Marching Band. Full year course, but semesters are negotiable pending approval from music department.
Requirements for placement: signature of Fine Arts Chairperson

## \#BBIA Orchestra

## I Credit

## Level *

Open to students in grades $9-12$ with experience playing a Violin,Viola, Cello, or Upright Bass. The ensemble performs in both semesters. Students will prepare for a Christmas Concert, and a Pops Concert in May.Additional solo and small group opportunities are available to interested students. Full year course, but semesters are negotiable pending approval from music department.
Requirements for placement: signature of Fine Arts Chairperson

## GENERAL MUSIC ELECTIVES

(Nonperformance-based courses utilizing in-class projects for assessments)

## \#BB2A Creative Music

### 0.5 Credit Level*

This is an exploratory course that encourages students to develop their understanding of music composition through various avenues such as playing the piano, learning how to use Garageband, and using percussion instruments. No performing is required.
Requirements for placement: Sophomores, Juniors, or seniors

## \#BB3A Music Appreciation

### 0.5 Credit

## Level*

Students will develop their understanding of music while they listen to classics from the Medieval period to current billboard charts. Students will be introduced to music history concepts through in-class videos, and listening examples and will develop their ear to identify instruments, musical structure, and eras by their sound. The core of this class is using your ears to better appreciate and enjoy music of all types. No performing is required.

## \#B5 IA Piano Lab

### 0.5 Credit

## Level*

Students will develop their understanding of while discovering or improving their skills in music theory, reading music notation, and piano skills. All levels of ability are welcome. Some in-class performance is required. Opportunities to participate with the ND performing ensembles (Jazz Band, Band, Choir, Orchestra) are available, but not mandatory.
Requirements for placement: Sophomores, Juniors, or Seniors

## VIDEO PRODUCTION PROGRAM

## \#VI2B Video Production I <br> 0.5 Credit <br> Level 2

This course will introduce students to the basics of video production, with a strong emphasis on developing critical viewing skills, both technical and conceptual. Students will work on a series of short-form, "hands-on" projects designed to help them develop strong production skills including camera operation, production sound, directing, editing, audio mixing, and graphics. Students will apply these new skills in team exercises, as well as individual projects. Using professional video equipment, students will gain a greater understanding of the overall pre-production, production, and post-production processes.

## \#V23A Video Production II

### 0.5 Credit Level 2

This intermediate level course will allow students who have passed video production I to take their skills to the next level. New production techniques will be introduced, and students will produce, direct, and edit video projects for the school and their own portfolios. Students will continue to study all aspects of film, television, and video production, with additional emphasis on news, sports and marketing. Requirements for placement: Video production I

## \#V33A Video Production III

### 0.5 Credit Level 2

This advanced level course is available for those students who have passed video production I \& II. Higher level video projects will be given to students in this class with a continued focus on news, sports and marketing. More creative responsibilities will be given to students to produce video projects throughout the course, including all aspects of broadcast production which includes field and studio recordings. Individuals in this class are expected to capture school events, news, and sports on/off campus.
Requirements for placement:Video production I and II

## \#V43A Video Production IV <br> 0.5 Credit Level 2

This highly advanced level course is only available to students who have passed video production I, II \& III. Students will use all their video production skills to create high quality projects for the school and themselves. If a student is interested in studying film, television or digital media production in college, this course will give them the opportunity to collaborate, create, and explore the powerful medium of video production. Students will compile a digital portfolio of their work throughout their video career at Notre Dame.
Requirements for placement:Video production I, II and III

## MATHEMATICS DEPARTMENT

The mission of the Mathematics Department is to reveal to our students the simplicity, the beauty, and the power of mathematics. We assist students in cultivating critical thinking skills and problem solving strategies. Students develop oral, written, and technological skills through collaborative initiatives.

## Possible Math Progressions

*Based on a student's final grade in his math class, it is possible to move into different math Levels

| Student Starts with Algebra I Level I |  |  |  |
| :---: | :---: | :---: | :---: |
| 9th Grade | 10th Grade | I Ith Grade | 12th Grade |
| Algebra I Level I | Algebra II Level I | Geometry Level I | Statistics Level 2 or Pre-Calculus Level 2 |
| Student Starts with Algebra I Level 2 |  |  |  |
| 9th Grade | 10 th Grade | 11 th Grade | 12th Grade |
| Algebra I Level 2 | Algebra II Level 2 | Geometry Level 2 | Statistics Level 2 or Pre-Calculus Level 2 |
| Student Starts with Honors Algebra I |  |  |  |
| 9th Grade | 10 th Grade | I Ith Grade | 12th Grade |
| Algebra I Honors Level 3 | Algebra Il Honors Level 3 | Geometry Honors Level 3 Trigonometry Honors Level 3 | Pre-Calculus Honors <br> or Calculus Level 3 <br> AP Calculus or <br> AP Statistics |
| Student Starts with Honors Algebra II |  |  |  |
| 9th Grade | 10 th Grade | 11 th Grade | 12th Grade |
| Algebra II Honors Level 3 | Geometry Honors Level 3 and Trigonometry Honors Level 3 | Pre-Calculus Honors Level 3 <br> or Calculus Level 3 <br> or AP Calculus <br> or AP Statistics | Calculus Honors <br> AP Calculus <br> Calculus II at UNH <br> AP Statistics |

## \#MI3A/B Algebra I Honors

## I Credit Level 3

NCAA
This course is intended for the gifted mathematics student. It includes all the topics of Algebra I as well as additional topics. Enrichment material is provided, and the pace and Level of difficulty are accelerated over Algebra I.
Requirements for placement: previous record; signature of school counselor

## \#MI2A/B Algebra I

## I Credit Level 2

NCAA
Algebra I guides students in discovering mathematical principles, strengthens their comprehension of these principles, and affords numerous opportunities to apply these understandings and skills to varied and realistic problem situations. Providing the foundation for upper Level mathematics courses, this course helps the student
understand the basic structure of Algebra, recognize the techniques of Algebra as reflections of this structure, acquire facility in applying algebraic concepts and skills, perceive the role of deductive reasoning, and appreciate the need for precision of language.
Requirements for placement: freshman status or successful completion of Pre-Algebra; signature of math teacher.

## \#MIIA/B Algebra I

## I Credit Level I NCAA

This course is designed for students who need to strengthen their basic math and study skills. All Algebra I topics will be covered. Emphasis will be on solving basic problems. A review of arithmetic will precede each topic in this Algebra course. Requirements for placement: previous record: entrance exam results: signature of school counselor.

# \#M33A/B Algebra II Honors 

## I Credit Level 3 <br> NCAA

This course is intended for the gifted mathematics student. The course will briefly review, reinforce, and expand upon major points from Algebra I. Several new topics will be introduced: functional analysis, asymptotes, symmetry, zeros, continuity, inverses, composition. The course explores these topics with relation to linear, quadratic, polynomial, exponential, and logarithmic functions.
Requirement for placement: 90 or above in Algebra I Level 2 and signature of Algebra I teacher or 80 or above in Algebra I Honors and signature of Algebra I teacher or placement exam

## \#M32A/B Algebra II

I Credit Level 2 NCAA
This course will review reinforce, and expand upon the major topics presented in Algebra I. In addition, more rigorous work will be done with properties of real numbers, solving systems of equations, and working with linear and quadratic functions. Exponential notation will be expanded to include rational exponents. Radicals will be presented as well as polynomials, rational expressions, exponential functions and the common logarithmic function.
Requirements for placement: completion of Algebra I Level 2 or signature of math teacher

## M3IA/B Algebra II

## I Credit Level I <br> NCAA

This course is designed for students who need to strengthen their algebra and study skills. This course will review reinforce, and expand upon the major topics presented in Algebra I. In addition, more rigorous work will be done with properties of real numbers, solving systems of equations, and working with linear and quadratic functions. Exponential notation will be expanded to include rational exponents. Radicals will be presented as well as polynomials, rational expressions, exponential functions and the common logarithmic function. Requirements for placement: completion of Algebra I

## \#M23A Geometry Honors

0.5 Credit Level 3 NCAA

This course is intended for the gifted mathematics student. This course covers the same topics as Geometry Level 2 while introducing more rigor. Also included are: the study of volumes of solids, coordinate geometry.
Requirements for placement: 80 in Algebra I Honors and Algebra 2 Honors, or 90 in Algebra I Level 2 and Algebra 2 Level 2 and signature of Algebra 2 teacher or placement exam

## \#M22A/B Geometry

## I Credit Level 2

NCAA
This course emphasizes the basics of plane geometry.The course teaches use of logical skills with special attention to deduction and induction. The topics covered are points, lines, planes, angles, polygons, circles, and arcs. The relationships discussed are congruence, similarity, parallelism, perpendicularity, area, length, distance, and ratio. Algebra applications are integrated into the course through problem solving.
Requirements for placement: completion of Algebra I and Algebra 2

## \#M2IA/B Geometry

## I. 0 Credit Level I

This course is designed for students who need to strengthen their problem-solving and study skills.This course emphasizes the basics of plane geometry. The course teaches use of logical skills with special attention to deduction and induction. The topics covered are points, lines, planes, angles, polygons, circles, and arcs. The relationships discussed are congruence, similarity, parallelism, perpendicularity, area, length, distance, and ratio. Algebra applications are integrated into the course through problem solving.
Requirements for placement: completion of Algebra I and Algebra 2; signature of math teacher

## \#M43A Trigonometry Honors

### 0.5 Credit Level 3 NCAA

This course is intended for the gifted mathematics student. This course focuses on trigonometry and how it is applied. Topics include triangle trigonometry, the unit circle, radians and degrees, special right triangles, the law of sines, and the law of cosines. There will be an introduction to the trigonometric functions as well as inverse trigonometric functions.
Requirements for placement: 80 or above in Algebra 2 Honors and in Honors Geometry or 90 or above in Algebra 2 Level 2 and 90 or above in Geometry Level 2: signature of the Algebra 2 teacher

## ELECTIVES

## \#M92A/B AP Statistics

## I Credit Level 4

This course will provide a rigorous introduction to statistics by exploring data and how it is used to picture and describe the world and is designed for the gifted mathematics student. Such topics as data collection, surveys, sampling, measures of central tendency are included. Probability, normal distribution, and statistical inference will also be covered. Students may take the Advanced Placement Exam in May for potential advanced placement credit.
Requirements for placement: 85 or above in Honors Algebra I, Honors Algebra II, and Geometry Honors/Trig Honors and signature of Geometry Honors/Trig Honors teacher: 90 or above in Algebra I, Level 2,Algebra 2, Level 2 and Geometry, Level 2 and signature of Geometry teacher.

## \#M92A/B AP Statistics

I Credit Level 2
NCAA
This course will provide an introduction to statistics by exploring data and how it is used to picture and describe the world. Such topics as data collection, surveys, sampling, measures of central tendency are included. Probability, normal distribution, and statistical inference will also be covered.
Requirements for placement: completion of Algebra I, Algebra 2 and Geometry

## \#M62A/B Pre-Calculus

## I Credit Level 2 NCAA

This course will provide a comprehensive presentation of Pre-Calculus topics with an emphasis on functions, their properties and applications. These topics include domain, range, intercepts, asymptotes, symmetry, zeros, continuity, inverses, composition, exponential functions, logarithmic functions, and other discontinuous functions. This course also includes the fundamentals of trigonometry and some of its applications. Topics include triangle trigonometry, the unit circle, radians, degrees, and special right triangles.
Requirements for placement: completion of Algebra I, Algebra 2 and Geometry

## \#M63A/B Pre-Calculus Honors I Credit Level 3

NCAA
This course is intended for the gifted mathematics student. It will provide a comprehensive presentation of Pre-Calculus topics with an emphasis on functions, particularly their properties and applications. These topics include domain, range, intercepts, asymptotes, symmetry, zeros, continuity, inverses, and composition, exponential functions, logarithmic functions, inverse trigonometric functions, piece-wise functions, and step functions. It will also include an overview of introductory Calculus topics.
Requirements for placement: 75 or above in Geometry Honors/Trig Honors and signature of Geometry Honors/Trig Honors teacher

## \#M73A/B Calculus Honors

I Credit Level 3
NCAA
This is a high school Level course in Calculus. It meets the needs of students planning to study advanced mathematics in college. This course includes topics in Calculus and analytic geometry, limits, differentiation, and integration with application to physics, engineering, and economics.
Requirements for placement: 85 or above in Geometry Honors/Trig Honors and signature of Geometry Honors/Trig Honors teacher

## \#M84A/B AP Calculus

## I Credit Level 4

NCAA
This is a college Level course which provides students with the analytical skills necessary for advanced work in the sciences and mathematics. Topics included are limits, differentiation, and integration. The course follows the syllabus for Advanced Placement Calculus $A B$ of the College Board. Students may take the Advanced Placement Exam in May for potential advanced placement credit.
Requirements for placement:90 or above in Geometry Honors/Trig Honors and signature of Geometry Honors/Trig Honors teacher

## M95A College Mathematics

The University of New Haven allows Notre Dame students who have completed their junior year to take advanced calculus courses offered at the university during the summer or during senior year. These courses are intended for those students with above average ability and achievement in mathematics.
Requirements for placement:Completed Calculus Level 4:overall 85 average or above: signatures of the math department chairperson and your school counselor

## MODERN AND CLASSICAL LANGUAGES DEPARTMENT

The Department of Modern and Classical Languages educates Notre Dame's students to become communicatively competent and informed global citizens with proficiency in languages and critical insights into the cultures of our target languages. Cultural diversity and language proficiency are essential parts of educating the minds and hearts of our students to become true global citizens.

## \#LI2A Latin I <br> I Credit <br> Level 2 <br> NCAA

This course introduces the student to the structure of Latin. Emphasis is placed on grammar and syntax. The primary concern is to present the forms, vocabulary, and the syntax in an orderly, cumulative fashion so that the student can advance in a systematic and efficient manner. Additional emphasis is placed on the influence of Latin on other languages. To further enrich the student's understanding, presentations on various cultural topics are assigned to students. Students will demonstrate proficiency in technology in their presentations.

## \#JI2A Spanish I

I Credit Level 2 NCAA
This beginning course introduces the student to reading, writing, speaking, and understanding the target language. Basic functional vocabulary and fundamental grammatical structures are stressed. Students are also introduced to Spanish/Hispanic culture as it exists in the country where the target language is spoken.

## \#|I2A Italian I

## I Credit Level 2 NCAA

This beginning course introduces the student to reading, writing, speaking and understanding the target language. Basic functional vocabulary and fundamental grammatical structures are stressed. Students are introduced to Italian culture as it exists in the country of Italy.

## \#JS IA/B Spanish for Native Speakers I Credit Level 2

This course provides instruction directed at the student's continued development of existing competencies in the Spanish language. Students will acquire skills that range from grammar and spelling, and specialized vocabulary, through the study of other disciplines, to interpretation and analysis of different literary genres. Students will compare and contrast language functions between Spanish and English and enhance their skills in both languages.Also, students will increase their awareness and appreciation of different Hispanic cultures. Spanish is used exclusively in the classroom. Upon completion of this course,students are expected to confidently understand, read, write and speak Spanish with an increased vocabulary and general knowledge of other disciplines. They will increase their reading skills through interpretation and analysis of different literary genres from Spain, Latin America and the

United States. They will increase their writing skills by writing personal essays, expository compositions, and descriptive essays while continuing to develop skills in the correct use of grammar, spelling, punctuation, and capitalization. Only Native/ Heritage speakers of Spanish may register for this course.
Requirements: Incoming freshmen: Entrance Exam: Native/ Heritage Spanish speaker/Current freshmen and upperclassmen: interview with current Spanish teacher

## \#I22A/B Italian II

I Credit Level 2 NCAA
These intermediate course reviews the concepts covered in Level I and develop further speaking, listening, reading, and writing skills in the foreign language. More advanced grammatical structures are studied, and a student's vocabulary is enhanced. Cultural units continue to play a major role in these courses. The courses are conducted in the appropriate foreign language as much as is feasible.
Requirements for placement: completion of Italian I

## \#J22A/B Spanish II

I Credit Level 2 NCAA
These intermediate course reviews the concepts covered in Level I and develop further speaking, listening, reading, and writing skills in the foreign language. More advanced grammatical structures are studied, and a student's vocabulary is enhanced. Cultural units continue to play a major role in these courses. The courses are conducted in the appropriate foreign language as much as is feasible.
Requirements for placement: completion of Spanish I

## \#J2IA/B Spanish II

## I Credit Level I

This intermediate course reviews the concepts covered in Spanish I and develops further speaking, listening, reading, and writing skills in the foreign language. More advance grammatical structures are studied, and a student's vocabulary is enhanced. Cultural units continue to play a major role in these courses. This course is conducted in the appropriate foreign language as much as is feasible. This course does NOT fulfill the requirement for future Spanish study.
Requirements for placement: completion of the first level of the foreign language and signature of the Foreign Language teacher

## \#L22A/B Latin II

## I Credit <br> Level 2 <br> NCAA

After some review of first year material, this two-semester course will continue to introduce the student to the structure of Latin and complete the study of basic Latin grammar. Emphasis is placed on grammar, syntax, and reading. The primary concern is to present the forms, vocabulary, and syntax in an orderly, cumulative fashion, so that the student can advance in a systematic and efficient manner. Additional emphasis is placed on the influence of Latin on other languages.
Requirements for placement: completion of Latin I

## F22A/B French II

## I Credit Level 2

This course is a continuation of French $I$ and develops further speaking, listening, reading, and writing skills in the foreign language. More advanced grammatical structures are studied, and a student's vocabulary is enhanced. This course is taught in a blended-online format with teacher facilitation.
Requirements for placement: completion of French I

## \#I32A/B Italian III

## I Credit Level 2

NCAA
The third year of language study is designed to improve the student's knowledge in all language skills: reading, writing, listening, and speaking. Oral and written communication skills are stressed. The third year language course is mostly conducted in the target language. Grammar review plays an important role in the course. This course teaches the language skills necessary to function in an environment where the target language is spoken.
Requirements for placement: completion of the second level of the language course with a 75 ; signature of the second Level teacher

## \#F32A/B French III

## I Credit Level 2 NCAA

The third year of language study is designed to improve the student's knowledge in all language skills: reading, writing, listening, and speaking. Oral and written communication skills are stressed. The third year language course is mostly conducted in the target language. Grammar review plays an important role in the course. This course teaches the language skills necessary to function in an environment where the target language is spoken.
Requirements for placement: completion of the second level of the language course with a 75 ; signature of the second Level teacher

## \#J32A/B Spanish III

## I Credit Level 2 NCAA

The third year of language study is designed to improve the student's knowledge in all language
skills: reading, writing, listening, and speaking. Oral and written
communication skills are stressed. The third year language course is mostly conducted in the target language. Grammar review plays an important role in the course. This course teaches the language skills necessary to function in an environment where the target language is spoken.
Requirements for placement: completion of the second Level of the language course with a 75: signature of the second Level teacher

## \#J3 IA/B Spanish III

I Credit Level I
NCAA
This course reviews the basic concepts of Spanish I and Spanish 2. The course will cover some Spanish 3 concepts when prior understanding is clearly established. Cultural understanding is an important part of the curriculum. Some of the course is taught in the target language when possible. Requirements for placement: completion of the second year of the language course with the signature of the second Level teacher.

## \#L32A/B Advanced Latin Prose I Credit Level 3

## NCAA

This course offers students the opportunity to engage with Latin literature in its original, undated form. The focus of this course is on the history of the Latin language as it develops in prose, beginning with the oldest attestations of Latin, and ending with Neo-Latin as it appears from the Renaissance up to the present (including Harrius Potter et Philosophi Lapis). Selections will therefore not only come from Classical authors like Cicero and Caesar, but will also include selections from earlier (e.g. inscriptions and legal texts) and later (e.g. Jerome, Newton, and Tolkien) periods. In reading and translating these texts, focus will largely be on Latin grammar, syntax, and style, but attention will also be given to the social, cultural, and historical contexts of the various texts we read. Assessment will take the form of quizzes, tests, and student presentations. The course is an ECE approved course that could result in three college credits earned for it.This iteration of the course will be offered every other academic year.
Requirements for placement: completion of Latin II with at least an 80 average, and the approval of the Latin II teacher.

## L33A/B Advanced Latin Poetry

## I Credit Level 3 NCAA

This course offers students the opportunity to engage with Latin literature in its original, undapted form. The focus of this course is on the development of both the form and content of Latin poetry, beginning with its earliest attestations in Ennius, and ending with the varieties of Latin poetry found throughout the Medieval period. Selections will therefore not only come from Classical authors like Catullus, Ovid and Vergil, but will also include selections from earlier (e.g. Ennius, Plautus, and Terence) and later (e.g. Hiberno-Latin) periods. In reading and translating these texts, focus will
largely be on Latin grammar, syntax, and style, but attention will also be given to the social, cultural, and historical contexts of the various texts we read. Assessment will take the form of quizzes, tests, and student presentations. The course is an ECE approved course that could result in 3 college credits earned for it. This iteration of the course will be offered every other academic year.
Requirements for placement: completion of Latin II with at least an 80 average, and the approval of the Latin II teacher.

## \#143A/B Italian IV <br> I Credit Level 3 <br> NCAA

This fourth year language course is conducted entirely in the target language and build upon the reading, writing, speaking, and listening skills developed in previous levels. This course explores all aspects of culture. Topics include: history, literature, cuisine, music, art, everyday life as well as a variety of other pertinent topics. A review of grammar in context is given. Effective communication leading to proficiency is the main goal. A major work of literature is also reviewed.
Requirements for placement: completion of the third level of the language course with a 80: signature of the foreign language teacher

## \#J43A/B Spanish IV

## I Credit Level 3 NCAA

This fourth year language course is conducted entirely in the target language and build upon the reading, writing, speaking, and listening skills developed in previous levels. This course explores all aspects of culture. Topics include: history, literature, cuisine, music, art, everyday life as well as a variety of other pertinent topics. A review of grammar in context is given. Effective communication leading to proficiency is the main goal. A major work of literature is also reviewed.

Spanish IV is a UConn ECE approved course.
Requirements for placement: completion of the third level of the language course with a 80 :signature of the foreign language teacher.

## \#J54A/B Spanish V

I Credit Level 4 NCAA
This two-semester course is for students who are interested in completing studies comparable in content and difficulty to a full-year course at the college level. The curriculum is flexible, allowing for independent projects, constant written, oral, and aural practice, and an intense, structural review of grammar. The Spanish V is a UConn ECE approved course. It will follow the guidelines established by the College Board for the Advanced Placement test, which students may take in May.
Requirements for placement: completion of the fourth level of the language course with an 80: signature of the foreign language teacher.

## \#I54A/B Italian V

## I Credit Level 4 NCAA

This two-semester course is for students who are interested in completing studies comparable in content and difficulty to a full-year course at the college level. The curriculum is flexible, allowing for independent projects, constant written, oral, and aural practice, and an intense, structural review of grammar. It will follow the guidelines established by the College Board for the Advanced Placement test, which students may take in May.
Requirements for placement: completion of the fourth level of the language course with an 80; signature of the foreign language teacher.

## SCIENCE DEPARTMENT

The mission of the Science Department is to provide each student with the 21 st century skills necessary to understand and explain current events, scientific phenomena, and scientific and technological advances using critical thinking and problem solving skills so that they may be an informed global citizen.

## Possible Science Progression*

*Based on a student's final grade in his classes, it is possible to move into different pathways

| Class of 2023 |  |  |  |
| :---: | :---: | :---: | :---: |
| Grade 9 | Grade 10 | Grade II | Grade 12 |
| Conceptual Physics (LI) | Biology (LI) | Chemistry (LI) | Science Elective |
| Conceptual Physics (L2) | Chemistry (L2) | Biology (L2) | Science Elective |
| Conceptual Physics (L3) | Chemistry (L3) | Biology (L3) | Science Elective |
| Conceptual Physics (L3) | Chemistry (L3) | IB Biology II or Biology (L4) | IB Biology I2 or <br> Physics (L4 OR L3) <br> or Chemistry (L4) |
| Class of 2024, 2025 \& 2026 |  |  |  |
| Grade 9 | Grade 10 | Grade II | Grade 12 |
| Conceptual Physics (LI) | Chemistry (LI) | Biology (LI) | Science Elective |
| Conceptual Physics (L2) | Chemistry (L2) | Biology (L2) | Science Elective |
| Conceptual Physics (L3) | Chemistry (L3) | Biology (L3) | Science Elective |
| Conceptual Physics (L3) | Chemistry (L3) | IB Biology II or Biology(L4) | IB Biology I2 <br> Physics (L4 OR L3) <br> or Chemistry (L4) |

## \#SII3A/B Conceptual Physics Honors

I Credit Level 3 NCAA
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, and energy. This STEM course will integrate science and engineering practices in the learning with application to real world situations. Collaborative, inquiry-based strategies will be engaged in that will include laboratory experiments and activities that will be hands-on. Students will integrate these practices to critically think and explain phenomena in our world and the universe while engaging in scientific argumentation to connect content and concepts explaining problems and questions encountered in class. Students will collect and analyze data to find patterns and trends that help to explain our world. Math practices and activities will be challenging on the Algebra I Level and will enhance student learning of the content.
Requirements for placement: previous school record, placement into Level 3 Math courses, and signature of school counselor

## \#S I I2A/B Conceptual Physics

I Credit Level 2 NCAA
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, and energy. This STEM course will integrate science and engineering practices in the learning. Collaborative, inquiry-based strategies will be engaged in that will include laboratory experiments and activities that will be handson. Math practices and activities will be Algebra I Level and will enhance student learning of the content. Students will integrate these practices to critically think and explain phenomena in our world and the universe while engaging in scientific argumentation to connect content and concepts explaining problems and questions encountered in class. Requirements for placement:placement into Level 2 Math class

## \#S II IA/B Conceptual Physics

 I Credit Level I NCAAThis course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, and energy.This STEM course will integrate science and engineering practices in the learning. Collaborative, inquiry-based strategies will be engaged in that will include laboratory experiments and activities that will be hands-on. Math practices and activities will be kept at a very basic Algebra I Level and will enhance student learning of the content. Students will integrate these practices to critically think and explain phenomena in our world and the universe while engaging in scientific argumentation to connect content and concepts explaining problems and questions encountered in class.
Requirements for placement:placement into Level I Math class

## \#S33A/B Chemistry Honors

I Credit Level 3
NCAA
The Level 3 Chemistry course is an introductory Level course similar in design to the standard chemistry course but broader in scope and more detailed in specifics. It seeks to provide a strong background in the fundamentals of theory and lab work, provide difficult problem-solving situations for the highly competitive student.
Requirements for placement:minimum grade of 85 in Conceptual Physics L3; concurrently enrolled in Algebra II Honors Level 3; signature of Chemistry teacher

## \#S32A/B Chemistry

I Credit Level 2
NCAA
This course is intended to introduce the student to the fundamentals of the discipline, show him a practical application of his math studies to tangible subjects, and increase his reading ability by offering problem-solving situations that demand his attention, concentration, and organization. The course emphasizes problem-solving and lab work. The general topics include but are not limited to: atomic theory, stoichiometry, mass energy relationships, Periodic Law and acid-base theory.While some lab exercises are qualitative in nature, the majority of the exercises serve to quantify the behavior of matter and energy in both chemical and physical changes.
Requirements for placement: completion of conceptual physics

## \#S3 IA/B Chemistry

I Credit Level I
NCAA
This course introduces the student to general topics in chemistry. Class lectures, close reading of material, and laboratory work are the major components of the course. The course emphasizes problem-solving and lab work. The general topics include but are not limited to: atomic theory, stoichiometry, mass energy relationships and Periodic Law. While some lab exercises are qualitative in nature, the majority of the exercises serve to quantify the behavior of matter and energy in both chemical and physical changes. Requirements for placement: completion of conceptual physics; signature of counselor

## \#S34A/B A.P. Chemistry L4

I Credit Level 4 NCAA
This course is designed to provide a foundation for more advanced courses in chemistry. Topics of study include atomic theory; laws and theories concerning the physical and chemical behavior of gases, liquids, solids, and solutions; properties of some of the more familiar elements and their compounds; quantitative measurements illustrating the laws of chemical combination; equilibrium in solutions and qualitative reactions of the common cations and anions. The
course is Algebra-based. Students will be prepared to take the College Board's AP Chemistry exam after completion of the course.
Requirements for placement: 88 in Chemistry Honors and Algebra II Honors (Level 3) OR 90 in Chemistry and Algebra II (Level 2); signature of Chemistry L4 teacher

## \#S24A/B Biology L4

## I Credit Level 4 NCAA

Biology Level 4 is a course designed to provide a foundation for higher Level courses in Biology and related life sciences, and as a preparation for further study in a college setting. The purpose of this course is to enable students to earn credit from the University of Connecticut in the course BIOL IIO7: Principles of Biology I.
Requirements for placement: 90 overall average or better; minimum grade of 90 in Chemistry L3; signature of Biology L4 teacher

## \#S23A/B Biology Honors <br> \section*{I Credit Level 3}

NCAA
This accelerated course is for the student of above average ability and achievement. It covers the same material as Biology Level 2 but in more detail. Fundamental concepts are introduced, reinforced, and expanded on to prepare the student for the challenges and intensity of advanced Level science courses. Discussion and lab work are the major components of the course and through inquiry-based learning, the student will develop scientific critical thinking and reasoning skills.
Requirements for placement: minimum grade of 85 in Chemistry L3; signature of Honors Biology teacher

## \#S22A/B Biology

## I Credit <br> Level 2 <br> NCAA

This course is designed to acquaint the student with selected topics from the areas of traditional and modern biological science. Students are introduced to theoretical concepts and practical applications of biology. Discussion and laboratory work are the major components of the course.
Requirements for placement: completion of chemistry

## \#S2 IA/B Biology

## I Credit Level I NCAA

This course is designed to acquaint the student with selected topics from the areas of traditional and modern biological science. Students are introduced to theoretical concepts and practical applications of biology. Discussion and laboratory work are included in the course.
Requirements for placement: sophomore status: signature of school counselor

## \#S84A/B A.P. Physics L4

I Credit Level 4
NCAA
This course will develop a deep understanding of concepts. Students must have strong algebra and trigonometry skills, and must have completed calculus or be concurrently enrolled in calculus. The course provides a quantitative study of the basic facts and principles of physics and includes a lab component with fundamental training in physical measurements. Topics of study include kinematics, dynamics, circular and rotational motion, oscillations and waves, thermodynamics, and fluid mechanics. The purpose of this course is to enable students to earn credit from the University of Connecticut in the course PHYS I40IQ: General Physics with Calculus I.The students will also be prepared to take the College Board's AP Physics $C$ : Mechanics exam after completion of the course. This is a Calculus-based course.
Requirements for placement: minimum grade of 90 in Conceptual Physics L2 or 85 in Conceptual Physics L3; concurrent enrollment in Calculus Level 4 or Calculus Level 3:signature of Physics L4 teacher

## \#S73A/B Physics Honors

I Credit Level 3 NCAA
This course is primarily for students who have a strong interest in math, science, technology and engineering. Physics is the science which deals with natural laws and processes. It strives to bring about an understanding of the most basic scientific topics, and in doing so,forms a foundation for the sciences. Coursework includes Mechanics/Newtonian Physics. This course is designed for students who want to build a solid foundation in physics for college.This is an Algebra and Trigonometry based course.
Requirements for placement: minimum grade of 85 in Conceptual Physics L2 or 80 in Conceptual Physics L3; minimum grade of 80 in Algebra II Honors, Geometry Honors, and Trigonometry Honors; signature of Physics L3 teacher

## \#S52A/B Anatomy \& Physiology <br> I Credit Level 2

NCAA
This course will cover the basic patterns of human development and organizational themes. Material will be taught through a variety of class presentations, discussions, and laboratory work. Emphasis will be placed on anatomy, physiology, and pathology. Requirements for placement: minimum grade of 80 in Biology L2 and Chemistry L2, or minimum grade of 78 in Biology L3 and Chemistry L3; signature of Anatomy \& Physiology teacher

## \#SSI5A Astronomy

### 0.5 Credit Level 2

Astronomy is the scientific study of the contents of the entire Universe. This course will introduce students to the composition and structure of the Universe, and provide students with a study of the Universe and the conditions, properties, and motions of bodies in space. The content includes, but is not limited to, historical astronomy,astronomical instruments, the celestial sphere, the solar system, the Earth as a system in space, the Earth/Moon system, the Sun as a star, and stars. Algebra and Geometry will be used.
Requirements for placement: completion of Geometry: minimum grade of 80 in Chemistry L2 and Conceptual Physics L2, or minimum grade of 78 in Chemistry L3 and Conceptual Physics L3: signature of Science Department Chairperson

## \#SSI6A Epidemiology <br> 0.5 Credit Level 2

This course is intended to introduce students to the fundamentals of Epidemiology and the role public health science plays in improving health and preventing diseases. Emphasis will be on real life case studies and realistic simulations to learn the strategies and build the skills necessary to become a real disease detective. General topics include, but are not limited to, the ebola response, multistate outbreaks of salmonella, seasonal flu, exposure to radon, and vaccines
Requirements for placement: minimum grade of 80 in Biology L2, or minimum grade of 78 in Biology L3; signature of the Biology teacher

## \#S42A Marine Ecology

0.5 Credit Level 2 NCAA

This one semester course of study will provide an opportunity to investigate the unique nature of marine life, the physical and chemical characteristics of a body of water including temperature, water currents, tides, and sediments, and the history and geology of Long Island Sound as well as the history of ocean exploration. We will also study the issues of land use and its effects on economics and ecology of coastal communities.
Requirements for placement: junior or senior status; signature of Marine Ecology teacher

## \#S92A Forensic Science

0.5 Credit Level 2

NCAA
This course is designed to acquaint students to the different aspects of Forensic Science. It will integrate various sciences to solve specific crimes and make sense of complex problems that require logical reasoning and involve numerical data, evidence, and uncertainty. This course embodies concepts in many areas including biology, chemistry, anatomy, genetics, physics, medicine, mathematics, sociology, psychology, and law. Crimes will be analyzed using proper crime scene investigative techniques. Topics include the recognition, identification, individualization, and evaluation of physical evidence such as hairs, fibers, bones, narcotics, blood, glass, soil, fingerprints, documents, firearms, and tool marks. Class discussion with lab work will be key components of this course.
Requirements for placement: junior or senior status; signature of Forensic Science teacher

## \#S90A Science Internship

## 0.5 or I. 0 Credit

## Level*

This internship is designed to offer students the opportunity to serve as an assistant to science teachers in preparing and teaching laboratories for their courses throughout the year. Responsibilities will include coordinating with science teachers in the areas of lab preparation, cleanup, acting as a teacher's assistant during labs, and other duties that help the department operate smoothly. Students must be willing to make a commitment to this internship and may be asked to extend their duty time to include community period or after school, as necessary.
Requirements: senior status: minimum of 80 in Conceptual Physics, Chemistry, and Biology:signature of Science Department Chairperson

# SPORTS MEDICINE PROGRAM 

## Course Progression:

Grade IO,II or 12 Sports Medicine IOI

Grade IO, II or 12 Essentials of Strength \& Conditioning, Principles of Coaching
Grade II or 12 Intro to Exercise Physiology, Fundamentals of Athletic Training I

## \#SMI2 Sports Medicine IOI <br> 0.5 Credit Level 2

Sports Medicine IOI is a one-semester course designed for students who are interested in the allied health careers, such as athletic training, physical therapy, exercise physiology, and other sports medicine-related fields. Students will investigate the different fields while learning some basic anatomy along the way. This course will be a combination of classroom and clinical experiences, with clinical experiences including basic first aid and emergency procedures. Students who take this course will also be able to further pursue their interest in the sports medicine field and take Fundamentals of Athletic Training I.
Requirements for placement: Grade 10, II or I2

## \#SMI3 Essentials of Strength \& Conditioning 0.5 Credit Level 2

Essentials of Strength \& Conditioning is a one semester course designed to give students the tools and resources needed to be physically fit and healthy for a lifetime. This course will be a combination of classroom and laboratory experiences, in which students will learn basic anatomy and physiological effects of strength training and conditioning, while also working together to develop strength training programs. Students will learn and be able to perform exercises relative to flexibility, resistance bands, free weights, plyometrics, and aerobic fitness.
Requirements for placement: Completed Sports Medicine IOI

## \#SMI4 Principles of Coaching 0.5 Credit Level 2

Principles of Coaching is a one semester course designed for students who are interested in learning about the tools and strategies necessary to become a successful coach and leader. Students will study coaching principles related to communication, motivation, management, practice planning and strategy, physical training, and safety. This course will be a combination of classroom and laboratory experiences, where the students will learn the principles in the classroom and be able to practice/perform them on the court/field. Requirements for placement: Completed Sports Medicine IOI

## \#SMI5 Intro to Exercise Physiology 0.5 Credit Level 2

Intro to Exercise Physiology is a one semester course designed for students to learn about the body's responses to exercise. This course will be a combination of a classroom and laboratory setting, where students will learn the basics of exercise physiology. Topics include respiratory and cardiovascular responses to exercise, energy production, metabolism, body composition, and muscular adaptations to exercise.
Requirements for placement: Have completed Biology and Sports Medicine 101

## \#SM22A/B Fundamentals of Athletic Training I I Credit Level 2

Fundamentals of Athletic Training I is a two-semester course designed for students who are interested in the career of Athletic Training. This course will provide a combination of learning experiences within the classroom, clinic and on-field settings. Students will learn about the domains of Athletic Training, which includes prevention, immediate care, treatment, rehabilitation, organization and administration, professional responsibility, clinical evaluation and diagnosis, and reconditioning of injuries. Students will learn anatomy associated with those domains along the way, and will also be required to complete a specific number of observation hours per semester. During observation hours, students will work with athletes and use the skills they have learned.
Requirements for placement: Completed Sports Medicine 101 with an 80 average or above:signature of sports medicine teacher

## ENGINEERING

The engineering signature program is designed to give students a background in the various fields of engineering while teaching them 2 Ist century skills, such as creative problem-solving, working collaboratively, and presenting ideas to groups. All students begin by taking one of the foundation courses, Introduction to Engineering Design or Principles of Engineering, which teaches students the fundamentals of the engineering design process as they learn programs such as Computer Assisted Design (CAD).These foundational skills serve students to then take the specialized courses (Digital Electronics, Civil Engineering and Architecture and Aerospace Engineering). Students who desire to undertake a full engineering track will take both foundation courses and at least two specialization courses. For those students, the engineering progression culminates in a senior year Capstone Project, where students apply all knowledge and hands-on skills acquired during the previous engineering courses in the creation of an original design concept. Notre Dame Engineering Program Recognition is given to those students who complete five engineering courses with an $\mathbf{8 0}$ or above.

These courses are aligned with Project Lead the Way (PLTW), a nationally recognized K-12 organization. Students who pass end-of-course assessments are eligible for college credit at over 100 colleges and universities including Purdue, Syracuse, Embry Riddle. and University of New Haven. Most importantly, students who are trained to think and do as engineers leave ND with critical skills that will serve them well when they get to college regardless of career path.

Students must take at least one foundation course before taking any specialized course.

## Foundation Courses

## \#DI3A Introduction to Engineering Design (IED) <br> 0.5 Credit Level 2

Engineering disciplines and career options are explored to understand the current job market in engineering fields. Students focus on the engineering design process, applying math, science, and engineering principles to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using computer aided design (CAD), including 3D modeling which is emphasized in this course. Students also use an engineering notebook to document their work and capture their technical drawings (both isometric and orthographic). During this project based journey, students are equipped with key professional skills such as technical writing and drawing, public speaking, conflict resolution, and task management. An engineering portfolio is also kept by students to showcase and document their projects and to potentially be used in the college application process.
Requirements for placement: 75 or above in Algebra I and Conceptual Physics: signature of engineering teacher

## \#DI3B Principles of Engineering (POE) 0.5 Credit Level 2

This course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The focus of this course is on having students take a hands-on approach in
learning these mechanical and electrical engineering skills by building and programming robots. Students also use an engineering notebook to document their work and capture their technical drawings (both isometric and orthographic). An engineering portfolio is also kept by students to showcase and document their projects and to potentially be used in the college application process. During this project based journey, students are equipped with key professional skills such as technical writing and drawing, public speaking, conflict resolution, and task management.
Requirements for placement: 75 or above in Algebra I and Conceptual Physics: signature of engineering instructor

## Specialized Engineering Courses

## \#D23A Digital Electronics (DE)

### 0.5 Credit Level 2

Digital electronics are fundamental to all modern electronic devices such as cellular phones, MP3 players, laptop computers, digital cameras, high definition televisions, etc. Students learn the digital circuit design process to create circuits and present solutions that can improve people's lives. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices. While many students may have been exposed to basic circuits and electricity in a science course, Digital Electronics is typically a unique experience
for students because of its focus on understanding and implementing circuit design skills. While implementing these designs, students will continually hone their professional skills, creative abilities, and understanding of the circuit design process.
Requirements for placement: 80 or above in IED and/or POE or permission of engineering instructor

## \#D33A Civil Engineering and Architecture (CEA)

### 0.5 Credit Level 2

Civil Engineering and Architecture is the study of the design and construction of residential and commercial building projects. The course includes an introduction to many of the factors involved in building design and construction including building components and systems, structural design, storm water management, site design, utilities and services, cost estimation and management, energy efficiency, and careers in the design and construction industry. Students will learn the fundamentals of REVIT Architecture, a commercial building information (BIM) software to create designs for commercial and residential structures. The course also explores identifying needs in the local community and ways in which to improve housing and commercial building efficiency through improvements to both sustainable design and structural systems.
Requirements for placement: 80 or above in IED and/or POE

## \#D33B Aerospace Engineering (AE)

### 0.5 Credit Level 2

Aerospace engineering introduces students to the fundamentals of atmospheric and space flight.As students explore the physics of flight, they bring the concepts to life by designing an airfoil, propulsion system, and rockets. Students will learn the principles of aerodynamics by designing, building, and analyzing the efficiency of their glider design using Aery, a software used in the preliminary design phase of aircraft. Students will also learn how to fly cross country using Fly to Learn powered by X-Plane software and explore robot systems through projects such as remotely operated vehicles.
Requirements for placement: 80 or above in IED and/or POE

## \#D43A/B Capstone: Engineering Design and Development (EDD) <br> I Credit Level 3

Students work on a real-world project which they need to bring to completion by the end of the school year. Based on the Conrad Challenge, students identify a need and then choose from various categories such as Aerospace and Aviation, Energy and Environment, and Health and Nutrition, to create the solution. The first semester culminates in a presentation to a panel of industry professionals and peers, where the student's innovation and funding proposal are reviewed and where recommendations for improvement are made. In the second semester students build and test their prototype, and develop all necessary user manuals. Students also present their final product to a panel and produce a presentation and report reviewing the entire project. Students who qualify present at the Annual Conrad Challenge Summit.
Requirements for placement: 80 or above in the following courses: Both foundation courses and two specialized courses or one foundation course and three specialized courses.

## SOCIAL STUDIES DEPARTMENT

The mission of the Social Studies Department is to foster the growth and adaptability of globally aware students and to cultivate an appreciation of the responsibilities of American citizenship within our students.An emphasis is placed on developing analytical and research skills along with other 2 Ist century skills.

## \#HI3A/B World Cultures Moreau Honors I Credit Level 3 NCAA

The Honors World Cultures course is one component of the interdisciplinary Moreau Honors Program that integrates the English, World Cultures, and Faith formation courses through long-term projects, analytical thinking, critical reading, research techniques, project-based learning, class discussions and collaborative work. A major emphasis is placed on the development of 21 st century skills and the Portrait of a Notre Dame Graduate. The course emphasizes a comprehensive treatment of world cultures in order to inform students about the origin and development of the world's major civilizations. The course encourages the formation of students' critical thinking skills needed to make objective judgments about historical and contemporary issues. Honors students are actively engaged in higher-Level critical thinking and studentcentered activities in order to analyze, interpret, and evaluate the historical and cultural patterns of the world.
Requirements for placement: previous record: high verbal scores on the entrance exam: signature of school counselor

## \#HI2A/B World Cultures

I Credit Level 2 NCAA
This course is designed to provide students with an understanding of the ancient and societies of $t$ the world with an emphasis on the culture, geography, and government systems. Classes are student driven with a focus on traditional and 21 st century skills. The course begins with Mesopotamia and extends through ancient civilization of Rome.
Requirements for placement: freshman status

## \#H34A/B A.P. U. S. History

I Credit Level 4 NCAA
In a College Board designed and approved curriculum students will learn how to use the AP Historical Thinking Skills and the AP Connecting Themes to understand the nine periods of United States history from pre-contact America to the modern era. Students will work on AP Exam strategies in preparation to take the AP exam for potential college credit. Requirements for placement: junior status: $90 \%$ average in all classes and signature of your second term World Cultures teacher

## \#H33A/B Honors U.S. History I Credit Level 3 NCAA

The Honors LevelAmerican History program is designed to provide students with an accelerated look intoAmerica's history with a focus on developing higher Level skills such as: analysis, evaluation, critical
thinking, logical reasoning, and problem solving. Students will be required to regularly write historical essays and papers throughout the course. The course will include the study of the United States from the Colonial Period to the present with an emphasis on the social, political, and economic factors that have shaped the nation. Requirements for placement: junior status: $85 \%$ average in all classes and signature of your second term World Cultures teacher

## \#H32A/B U.S. History

I Credit Level 2
NCAA
This survey course includes the study of the United States from the Colonial Period to the Present. Emphasis is placed on political, social, economic, geographic, and cultural factors, which have shaped the course of events that has allowed the United States to gain independence, expand, and develop into a modern day world power. Students will read and analyze primary source texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior. They will read and interpret data, develop evidence-based arguments, and engage in student centered research-based projects.An emphasis of this course's thematic focus will be on the political, social, economic, geographic, and cultural factors that led to the development of the United States from a colonial territory to a world superpower.
Requirements for placement: junior status

## H44A/B A.P. U. S. Government \& Politics I Credit Level 4 NCAA

AP United States Government and Politics is a college-Level introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will read and analyze U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior.They will read and interpret data, develop evidence-based arguments, and engage in an applied civics or politics research-based project. This course is preparation for the Advanced Placement United States Government and Politics examination, which students will be offered to take in May.As part of their senior service project, students are required to work a minimum of ten hours in a municipal, state, or national election campaign.
Requirements for placement: overall 90 average: senior status and signature of your second term US History Teacher

## \#H43A Honors American Government <br> 0.5 Credit Level 3 NCAA

The focus of this course is to prepare students to participate in exercising their political responsibilities as thoughtful and informed citizens, as well as give students an analytical perspective on government and politics in the United States. Emphasis is placed on how systems of government are founded, function, and impact individual, local, state, and national decisions. Students will read and analyze U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior. They will read and interpret data, develop evidence-based arguments, and engage in research-based projects.As part of their senior service project, students are required to work a minimum of ten hours in a municipal, state, or national election campaign. Ist semester Requirements for placement: $85 \%$ average in all classes and signature of your second term US History Teacher

## \#H42A American Government

### 0.5 Credit Level 2

NCAA
Students will investigate a thematically based study of the development, structure, functions, and politics of American Government at the federal, state, and local Levels. The study of foreign policy, the government's role in our economy, and current events are integrated into discussion. This course is an action oriented program, which involves student participation in the election process in order to combine the theory of the classroom with the realities of government in their role and responsibilities as a faithful American citizen. As part of their senior service project, students are required to work a minimum of ten hours in a municipal, state, or national election campaign. Requirements for placement: senior status

## \#HH2B Modern US History

0.5 Credit Level 2 NCAA

This course will focus on the end of the Cold War through the modern day United States history. Students will be able to identify key stressors that are left over from the Cold War era and be able to connect them with the events of 9/II and beyond. This class will have an emphasis on current events both within the US and on a global scale to promote global and civic literacy and to understand the United States' role in the world.
Requirement for placement: senior status: please note seniors enrolled in Level 4 US Government and Politics and/or have taken US History L4 will be exempt from this course.

## \#HH3B Honors Modern US History

### 0.5 Credit Level 2 <br> NCAA

This course will focus on the end of the Cold War through the modern day United States history. Students will be able to identify key stressors that are left over from the Cold War era and be able to connect them with the events of $9 / \mathrm{II}$ and beyond. This class will have an emphasis on current events both within the US and on a global scale to promote global and civic literacy and to understand the United States' role in the world.A heavy emphasis will be placed on an in depth analysis of national and global events.
Requirement for placement: $85 \%$ average in all classes and signature of your second term US History Teacher: senior status: please note seniors enrolled in Level 4 US Government and Politics and/or have taken US History L4 will be exempt from this course.

## Social Studies Electives

## \#HH4A/B Psychology

### 0.5 Credit Level 2

This course is an introduction to the behavioral sciences. Social Psychology presents an introductory survey of the individual in society. This course will focus on the systematic understanding of our thoughts and how these thoughts affect us. Topics receiving major attention are collective behavior, communication, socialization, deviance, and culture. The topic of mindfulness as well as the mind/body connection will be explored in great detail. A variety of readings, vlogs, blogs, experiments, video clips will be applied throughout this course. Group projects will be used to test theories and recognize the psychological and social issues we all experience.
Requirements for placement:junior or senior status

## \#H62A Antisemitism and the Holocaust: Facing History and Ourselves 0.5 Credit Level 2 NCAA

As a chronological and thematically based course, students will investigate the origins of antisemitism and its connection to Christianity. An important focus is on the historical context of Germany to understand the effects of World War I in perpetuating a discriminatory atmosphere towards European Jews.This analysis seeks to create an understanding of the events leading up to, contributing to, and after the Holocaust to allow a more modern investigation of present day antisemitism and political extremism in the world.
Requirements for placement: junior or senior status

## \#HH6A American Military History <br> 0.5 Credit Level 2 NCAA

This course is designed to examine the American military experience from the American Revolution to the Gulf War. Some of the key battles that we will be examining will be Yorktown, Gettysburg, Manila Bay, Second Marne, Normandy, Pusan Perimeter, Tet Offensive, and the Gulf War. Students will gain a better understanding of how the U.S. military has helped to shape American history through the strategy and tactics used on the battlefield. In addition we will also examine the technological advances in weapons and the improvements in military organization and operational planning. Finally we will also look at the diplomatic, social, political, and economic impact that war has had on the United States. There will be a heavy focus on discussions, project based, and student centered learning.
Requirements for placement: sophomore, junior, or senior status

## Business and Life Skills Electives

## \#U90A Information Technology Internship 0.5 to l. 0 Credits Level*

This internship is designed to offer students the opportunity to serve as an assistant to the Director of Instructional Technology and the IT Specialist in the oversight and execution of various technology based needs. Responsibilities will include setting up and running the microphones and soundboards in the gym and auditorium, installing and updating software applications on school owned devices, instruction on utilizing technology devices such as projectors, phones, wireless applications. Students who have a love of digital creation (music, photography, video. website construction, coding, etc.) will now have a place for others to get in contact with them and utilize their talents. The IT interns will advise, inform, research, and demonstrate multiple areas of technology as well as help implement our current technology to the best of its ability. Time commitment will vary from week to week but will not exceed more than 3 hours of work a week. This internship will open the door for actual employment over the summer and vacation breaks for students who are interested in working for Notre Dame in the IT department.
Requirements: Sophomore, Junior, or Senior: ability to work before and after school to help set up for events: signature of Director of Instructional Technology
\#P20B Life Skills
0.5 Credit

Level*
This course deals with personal and health issues in the life of an adolescent. Topics discussed will be building selfesteem, decision-making, relationship skills, public speaking, financial literacy and more. Students' grades will be based primarily on presentations completed during the term.
Requirements for placement: sophomore status

## \#U42A Entrepreneurship

### 0.5 Credit Level 2

This course gives each student an in-depth look at what it takes to plan, start, and maintain his own business. The course is organized into various Levels. The first exposes the student to the basics of entrepreneurship: the second teaches the fundamentals of business planning and the competitive free market environment: the third Level gives each student a comprehensive look at what is needed to manage a small enterprise using Virtual Business simulation software. Students will also have the opportunity to participate in DECA (Distributive Education Clubs of America), which is an association for marketing students. Requirements for placement: sophomore, junior, or senior status

## \#U52A Marketing

### 0.5 Credit

## Level 2

This course is designed to provide students with the fundamental concepts, principles,skills, and attitudes common to the fields of marketing, merchandising, distribution, and retailing. Instruction will emphasize applications directly involved with marketing areas such as advertising, sales, research, promotions, fashion merchandising, and sports and entertainment marketing. E-Commerce and the Internet's involvement in marketing will also be explored. Students will receive "hands on" experiences through Virtual Business ${ }^{\text {M }}$ simulation software. Also, all marketing students will be encouraged to join DECA (Distributive Education Clubs of America) an association of marketing students.
Requirement for placement: junior or senior status

## PHYSICAL EDUCATION DEPARTMENT

The Physical Education Department promotes the total wellness of the individual: physical, mental, emotional, social, and spiritual. This is achieved through studying the concepts and choices needed to make responsible decisions and live a healthy lifestyle. Students are provided with opportunities to discuss wellness related topics and participate in group and individual physical activities in a relaxed atmosphere. Emphasis is always placed on physical fitness, safety, leadership, healthy decision making, and sportsmanship.

## \#PIOA Physical Education 9 <br> 0.5 Credit <br> Level*

This course introduces the student to various physical activities. These activities are organized in a relaxed atmosphere with a focus on skill acquisition and teamwork in an individual, partner, or team setting. The course includes units on team building/cooperation activities, ultimate frisbee, soccer, wiffle ball, floor hockey, team handball, basketball, and weight room training.

## \#P20A Physical Education IO <br> 0.5 Credit Level*

This course builds on the individual skills focused on in the previous year and applies them to more advanced settings. Students will develop their leadership and cognitive skills in the realm of sport and physical activity. They will dive deeper into offensive and defensive strategy, tournament scoring, problem solving, activity communication, and personal fitness goals and planning. Activities will include ultimate frisbee, soccer, wiffle ball, floor hockey, team handball, basketball, and weight room training.

