

Northern Highlands  
Regional High School  
Curriculum Guide

2022

2023



# Administration

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Scot Beckerman, Ed.D, Superintendent  
Sue Anne Mather, Business Administrator/Board of Education Secretary  
Joseph Occhino, Principal  
Robin Knutelsky, District Director of Curriculum, Instruction, Assessment and Human Resources  
Michael Koth, Assistant Principal of Athletics  
Tony LaRocca, Assistant Principal of Student Affairs

## Directors

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Thomas Buono, Director of Special Services  
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## Supervisors

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Tiffany Cohen: Applied Technology, Mathematics, & Science  
Kimberly Hayes: Career and Academic Pathways  
Kristen Schumacher: Art, English, English Language Services, Music, Library & World Languages  
Robert Petrosino: Business, Family & Consumer Sciences, Health & Physical Education & Driver Education, & Social Studies  
Jessica Verdicchio: Media Studies, Nurse, Wellness & Equity

### School Counselors

Laura Eliscu, Counselor  
Jennifer Ferentz, Counselor  
Brandon Rajkovich, Counselor  
Daniel Rehai, Counselor  
Denise Talotta, Counselor  
Michele Zungoli, Counselor

### Child Study Team

Lyle Becourtney, Psy.D., School Psychologist  
Cathy Berberian, School Social Worker  
Robin Burton, Speech-Language Specialist  
Melissa DiBartolo, School Psychologist  
Allison Faase, Learning Disabilities Teacher/Consultant  
Gina Fuschetto, School Social Worker

### Student Assistance Counselors (SAC)

Jason Grabelsky  
Allison Rocca

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January 2022

Dear Highlander:

This Curriculum Guide is a resource that represents the current curriculum, course offerings, and requirements of Northern Highlands Regional High School. It has been designed to assist you in planning your high school education and to make informed decisions concerning courses and programs that will influence your future. The guide includes descriptions of all courses and programs offered, and represents a starting point for you and your parents in formulating an appropriate sequence of studies. Each course selection should be made with an overall academic plan in mind.

You will see that our curriculum is extensive and diverse, and will meet the needs of our dynamic student population. As you begin planning, please take time to speak with your teachers and department supervisors to learn more about our course offerings. To further assist you with your selections, please be sure to take part in our Elective Exploration program that occurs every December.

We ask that you and your parents review our Curriculum Guide in its entirety before choosing your courses. Discuss your immediate and long-range plans and goals with your parents and guidance counselor so that an individualized program of study can be designed to meet your personal and educational goals.

I wish you a most successful and rewarding experience at Northern Highlands.

Sincerely,

Joseph J. Occhino  
Principal

# Requirements for the Northern Highlands Regional High School Diploma

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*All students must complete 125 credits for graduation*

## **English**

4 years of core English courses—20 credits

## **World History/Cultures**

1 year—5 credits

## **U.S. History**

2 years—10 credits

## **Mathematics**

3 years—15 credits

## **Science**

3 years—15 credits

Required Course Sequence:

Physics (grade 9); Chemistry (grade 10); Biology (grade 11)

## **World Languages**

2 years—10 credits

## **Physical Education/Health/Driver Education**

1 year for each year of enrollment—5 credits per year

## **Visual & Performing Arts**

A minimum 5 credits are required. This requirement includes all art and Music classes. The following English electives (5 credits each) also apply: Introduction to Theater & Acting, Actors' Workshop, Actors' Workshop II, III

## **Career Education & Consumer, Family, and Life Skills**

A minimum of 5 credits are required. This requirement includes all Business Education, Applied Technology, Teacher Education, Media Studies, and Family & Consumer Science courses.

## **Freshman Seminar (a required multidisciplinary course for all ninth graders)**

One full year —5 credits

## **Financial Literacy**

All graduates must meet the 2.5 financial literacy course requirement.

The financial literacy requirement can be met by enrolling in the following courses:

1. Introduction to Business (grades 9-12)
2. Personal Finance and Investment (grades 9-12)
3. Financial Management (grades 9-12)
4. Financial Literacy course (grades 10-12) offered through the Northern Highlands Summer Academy
5. An approved on-line summer course (see Career and Academic Pathways section)

## Other Information

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**Dual Enrollment Courses**—Northern Highlands has partnered with several colleges/universities to provide an opportunity for students to earn college credit by taking college-level classes in high school. Students who enroll in these courses that are affiliated with a college or university are responsible for tuition as required by each university, if applicable. Northern Highlands' teachers have been approved by the respective college or university to teach dual enrollment courses.

**Early Graduation**—Students who are considering early graduation should discuss the matter with their counselor as early as possible, preferably no later than the end of sophomore year. To initiate this process, students must write a letter to the principal, addressing the reasons for this decision.

**ELS**—The English Language Service program is designed to teach students who speak languages other than English how to understand, speak, read, and write in English while learning about American culture. The program provides services to English Language Learners (ELL) that includes English content, instruction, and English language development. Northern Highlands utilizes the WIDA ACCESS Placement Test (W-APT) 9-12 to determine eligibility.

**Minimum Credits per Year**—All students must take a minimum of six courses per semester, including wellness education. Students may not take more than one study hall with the exception of seniors who may take up to two study halls.

**NCAA Eligibility**—The NCAA Eligibility Center certifies the academic credentials of all students who want to play sports at an NCAA Division I or II institution. In order to practice, play and receive an athletic scholarship, students need to meet certain academic benchmarks. These academic benchmarks are defined as core courses. A core course must be an academic course that receives high school graduation credit in a combination of these areas: English, mathematics, natural/physical science, social science, foreign language, comparative religion or philosophy. A core course must also be taught at the college preparatory level or higher. For more information, please visit the Eligibility Center website: <https://web3.ncaa.org/ecwr3/>, as well as the NCAA section of the School Counseling web page.

**Pupil Records**—Parents and guardians have the right to review their child's official school records; adult pupils (18 years of age and older) have the right to review their own official records. Persons interested in examining individual records should write a letter addressed to the School Counseling Department requesting an appointment to see a counselor to review those records. After graduation, Northern Highlands will only retain academic and medical records. Under New Jersey Administrative Code regarding pupil records, educational, occupational, and military recruiters shall have access to school facilities and student information directories. A parent or adult pupil may make a request in writing to the principal, stating that the student's name does not appear in student information directories.

**Senior Request for Special Schedule**—Seniors who have compelling reasons that require them to have an abbreviated schedule must submit a letter from their parents and any other relevant documentation to the Director of Guidance for approval. This does not include students participating in the Career & Academic Pathways Program.

**State Testing Requirements**—All ninth grade students in English Language Arts and math are required to take the New Jersey Student Learning Assessment (NJSLA) and students in grade 11 will also take the NJSLA in science. All eleventh grade students are required to take the New Jersey Graduation Proficiency Assessment (NJGPA). More information on state testing requirements can be found on the school website under School Counseling as well as the New Jersey Department of Education assessment website found [here](#).

# Advanced Placement Courses

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If students are planning to register for one or more Advanced Placement (AP) courses, the following should be kept in mind: AP courses are equivalent to college courses; they are extremely rigorous. All students are expected to take the AP examination in May. Due to the rigor of the AP level work, students will be challenged to achieve A's in coursework if they are coming from honors or CP level courses.

Tenth grade students who fulfill course prerequisites are permitted to take one AP course. However, sophomores who were enrolled and passed Honors Math Analysis in their middle school and are required to take an AP level course as part of their mathematics sequence may take one elective AP course. The elective AP course will receive AP weighting; however, the weighting will not be used when determining our valedictorian or salutatorian at the conclusion of seven semesters.

Ninth grade students are not permitted to take AP courses, with one exception. Freshmen enrolled in Honors Math Analysis have the option to take either Honors Physics or AP Physics I. (Note: The AP Physics I class is the only AP class that Honors Math Analysis students can take). Freshmen enrolled in the AP Physics I class will receive AP weighting and are also eligible to sit for the AP examination in May; however, the weighting of the AP Physics I class will not be used when determining our valedictorian or salutatorian at the conclusion of seven semesters.

## Guidelines for Grade Level Determination and Graduation

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### To enter Grade 10

Students will have earned a minimum of 30 credits by the end of their ninth grade year.

### To enter Grade 11

Students will have earned a minimum of 60 credits by the end of their tenth grade year.

### To enter Grade 12

Students will have earned a minimum of 90 credits by the end of their eleventh grade year.

### To graduate

Students will have earned 125 credits.

## Grading System

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To determine grades for student work within a semester, for the semester grade itself, and for the end of year final grade, numerical grades from 0-100 are used and are converted to letter grades.

- To determine the average for year-long classes, both of the semester grades will be averaged and will receive a 42.5% weighting; the final examination will receive a 15% weighting.
- To determine the average for semester classes, the semester grade will receive an 85% weighting and the final examination or final project will receive 15% weighting, if applicable.

Note: For the first semester, no grade lower than a 50 will be recorded. However, for the second semester, teachers will record the actual numerical grade earned on all assignments and the final examination.

## Grade Point Average and Weighting Procedures

To determine Grade Point Average (GPA), the final letter grades from all courses, except those designated Pass/Fail, are used. The GPA is cumulative and is computed at the end of the second, fourth, sixth, seventh, and eighth semesters.

The weighting system assigns quality points based upon the level of the course taken. Courses labeled Honors receive an additional one half quality point, and those labeled Advanced Placement receive one additional point.

### GPA Quality Points

GRADES		COURSE LEVEL			
			Regular	Honors	AP
97-100	A+	=	4.3	4.8	5.3
93-96	A	=	4.0	4.5	5.0
90-92	A-	=	3.7	4.2	4.7
87-89	B+	=	3.3	3.8	4.3
83-86	B	=	3.0	3.5	4.0
80-82	B-	=	2.7	3.2	3.7
77-79	C+	=	2.3	2.8	3.3
73-76	C	=	2.0	2.5	3.0
70-72	C-	=	1.7	2.2	2.7
67-69	D+	=	1.3	1.8	2.3
63-66	D	=	1.0	1.5	2.0
60-62	D-	=	0.7	1.2	1.7
59 or below	F	=	0	0	0

### Weighting for Freshman Courses and Transfer Students

- AP courses are not offered to ninth grade students at Northern Highlands with the exception of those students enrolled in Honors Math Analysis who may take AP Physics I concurrently. It should be noted that ninth graders enrolled in AP Physics I will receive AP weighting. (Please refer to the “Advanced Placement Courses” section for additional information).
- AP courses taken during ninth grade in another public or private high school will not be assigned AP weighting.
- Northern Highlands does not offer ninth grade honors credit in English or social studies. Consequently, honors weighting for transfer students is not assigned to courses in these areas. Ninth grade transfer students may only transfer honors weighting from honors math, honors science, or honors world language.



## Scheduling Events

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### **February and March 2022 —Scheduling:**

Every current ninth, tenth and eleventh grader will have an individual subject selection meeting with their school counselor; eighth grade scheduling will occur with the sending districts. All high school scheduling will be completed by mid-February.

### **April 2022—Course Request Check and Confirmation:**

Student Course Request sheets will be sent home through Genesis. At this time, any course changes should be made by contacting the school counselor. No elective course changes will be made after **April 6, 2022.**

### **March and April 2022—Academic Level Appeals:**

Appeal forms will be available as an electronic form for any student who wishes to appeal their level placement (i.e: A student who was recommended for a CP level but would like to appeal for placement to the honors level). The forms are due to the department supervisors no later than **April 6, 2022.** Decisions will be made on an ongoing basis through July 2022. Students will be notified via email regarding the decision.

A final list of course requests will also be available to view through Genesis in late June. No changes will be considered at that time pending any previous appeals.

## Important Notes Concerning Course Selection

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- When selecting courses, students should think in terms of a four year, high school program of courses, the rigor of the courses and how the program will prepare them for their goals after high school.
- All students must register for a minimum of six (6) courses per semester, including wellness education. Therefore, students should have reviewed the entire Curriculum Guide and completed the 4-Year Worksheet at the end of this guide before meeting with their school counselor.
- All course offerings are subject to adequate student enrollment. The necessary enrollment will vary depending upon the nature of the course. Consequently, all students will select two alternative electives should their first choice not be possible.

## 2022-2023 Schedule Change Guidelines

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All students will have been scheduled by the end of March by meeting with their school counselors. Students and parents are urged to review course requests and schedules with great care and consideration. Once families receive final course requests in June, no changes will be considered. Once the school year begins, schedule changes will be considered only for the following reasons:

1. **Elective Changes**—A student may have had a change of heart in terms of their elective choice. Changes may be made only if there is space in the course they are requesting to enter. The deadline for changing a **full year or a semester course** (both fall and spring) will only be allowed until **September 16, 2022**.
2. **Academic Misplacement of the Same Course**—As the school year progresses, some students may find themselves in a class that is too challenging. If the counselor, teacher and subject supervisor agree that a student is misplaced, a change will be considered, **provided space is available and the proper procedures have been followed**. Grades within a discipline will follow the student. Students will be required to make up the work missed in their new class. Misplacement most often is identified in the first four weeks of school; however, the deadline for consideration is **October 28, 2022** (i.e. Honors Biology to Biology). This does not apply to courses that are electives (see above). Please note—some AP courses are considered electives (i.e. Statistics, Economics, Art History).
3. **Dropping a Course for a Study Hall**—A student may drop a course for a study hall with written parental permission. Students may not take more than one study hall in a school year with the exception of seniors who may take up to two study halls. The deadline for dropping a **full year or a semester course** (both fall and spring) for a study is **October 28, 2022**.

## Additional Guidelines

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- Parent permission is required for all changes.
- The following are **not valid** reasons for a schedule change:
  - Teacher preference.
  - Changing a course from one period to another.
- If a student decides to drop an elective course after September 16, 2022, they will not have the option to add a new elective and will be placed into a study hall.
- A year-long or semester course will not be recorded on the permanent record, provided the course is dropped by the deadlines noted above. Post-deadline drops will be entered on the permanent record as a withdrawal/failure and receive no credit.

## Curriculum Course Offerings

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# Applied Technology

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## Computer-Aided Drafting and Design I

Grades 9-12

This introductory drafting course helps students to visualize three dimensions and to strengthen technical imagination. Topics covered include care and use of drafting instruments, lettering, orthographic and pictorial drawings, sketching and dimensioning; all skills essential to aspiring architects and engineers. Students will also apply their skills through three dimensional applications and printing three dimensional projects.

*Prerequisite: Minimum a grade of "77" or better in Algebra (8th grade) or be enrolled (9th grade) or have taken and earned a grade of "77" or better in Geophysics or Honors Physics.*

## Interior Architectural Design Exploration

Grades 9-12

In this course, students will learn the principles of design with a focus on architecture through project based learning. Projects include residential, hospitality, education, and retail spaces. Such projects will introduce students to the problem-solving design loop and the creative process. Students will be asked to accommodate client's needs for various projects, while also developing unique and enticing design solutions to successfully sell their ideas. Presentation and documentation of their designs will be created in computer programs such as AutoCAD and REVIT. Functional and technical knowledge are introduced through such topics as construction detailing, sustainability, material, furniture, lighting, acoustics, Mechanical Electrical Plumbing, and building codes. Much like the real world, students will also work collaboratively to further explore design and apply their understanding of interior architectural design processes.

*Prerequisite: Minimum grade of "77" or better in Algebra (8th grade) and be enrolled in Geometry (9th grade).*

## Real World Engineering

Grades 9-12

In this course students will learn about the fundamentals of several different types of engineering and technology that are a part of our everyday world. Students will apply the Engineering Design Process to complete four case study-based design problems. The four areas of study are architectural/structural engineering, civil engineering, industrial design (with an emphasis on train design), and aerospace engineering. Students research, design, and use math and science to guide and make design decisions. Physical models and prototypes are constructed using hand tools and machinery. Students document design progress by constructing portfolios and record testing results using the scientific observation.

*Prerequisite: Minimum a grade of "77" or better in Algebra (8th grade) or be enrolled (9th grade) or have taken and earned a grade of "77" or better in Geophysics or Honors Physics.*

## Woodworking

Grades 9-12

Woodworking is a great skill and useful hobby. In this course students will learn the basics of how to read plans and make small projects using wood as a material. Students will learn how to measure, layout, use hand tools, portable power tools, and large stationary machinery. Students complete both practical and written tests to confirm understanding of skills learned. Projects progress from small projects that are made by hand to a large project (Adirondack Chair) that is made with portable and stationary machinery independently.

## Project Woodworking

Grades 10-12

Project Woodworking is for more serious and advanced students who plan and construct entire projects. Professional techniques are employed in construction, emphasizing a student's pride in the finished product. Projects may include making a corner cabinet, a curio, or a dry sink. Students may repeat this course since each student works independently, further enhancing his/her ability to produce a finished product of quality.

Prerequisite: Woodworking.

## **Furniture Design**

Grades 11-12

Students apply the skills learned in Project Woodworking and apply them to more challenging and complex projects. Emphasis is given to quality and craftsmanship. Projects might include tables, lamps, and lathe work.

Prerequisite: Project Woodworking.

## **Robotics and Design Thinking**

Grades 10-12

The world is becoming increasingly automated. Every industry from cars to household appliances use a combination of microprocessors, mechanisms, and structural elements to accomplish and assist humans with tasks. In this course students will use the Design Thinking and CAD software to plan and build automated machines. Students will code and program lego mindstorm robots, learn about types of mechanisms and the four basic types of motions to accomplish tasks such as moving objects along the x, y, z axes. Finally, students will consider forces and structural needs for robots which involve designing chassis for mechanical and electrical components. Students will work in teams to design and build robots and evaluate outcomes using User Centered Design to measure the effectiveness of their designs.

Prerequisites: Minimum grade of "80" or better in Algebra I and have taken and earned a minimum grade of "80" or better in Physics/Geophysics

## **Honors Computer-Aided Drafting and Design II (New Jersey Institute of Technology)**

Grades 10-12

Students in Computer Aided Design II continue to build upon their technical drawing skills from pre-requisite courses. The drawings produced are related to manufacturing processes, mechanical devices, industrial design of cars, and ergonomics. Students learn how to use 2D AutoCAD in depth, use 3D AutoCAD, and complete practical design based problem solving projects of a small scale model C02 car and a full size ergonomic project. This is prototyping with materials and 3D printing will be learned.

Prerequisite: Must have achieved a grade of "80" or better in Computer-Aided Drafting and Design I, Interior Architectural Design Exploration or Real World Engineering or teacher recommendation.

Note: Students enrolled in this class will have the opportunity to earn college credit through New Jersey Institute of Technology (NJIT). For this New Jersey Institute of Technology course the cost of tuition is approximately \$450.00 for the course. Tuition is subject to change.

## **Honors Architectural Design**

Grades 11-12

In this course, students produce a professional style house portfolio using Computer-Aided Drafting (CAD). Included are client's requirements for floor, foundation, electrical, plumbing, cross-section, plot/landscape, and elevation plans. Ultimately, students produce a three-dimensional scale model of their house designs. A research paper is also required.

Prerequisite: Minimum grade of "85" or better in Computer-Aided Drafting and Design II, have attained a grade of "80" or better in Algebra II/Trigonometry, Honors Geometry, and teacher recommendation.

## **Honors Engineering Design**

Grades 11-12

This course integrates Science, Technology, Engineering and Math (STEM) and applies the technology education problem-solving format to solve real life, practical problems. Trigonometric and calculus-based functions are utilized in the development of structural design. Topics include: developments, intersections, structural design, nuclear generating facilities, green energies, and nautical engineering. Projects and competitions are presented in each area of study as well as a capstone project at the end of the course. Computer-Aided Drafting (CAD) is used extensively in this course. A research paper is required.

*Prerequisite: Minimum grade of "85" or better in Computer-Aided Drafting and Design II, have attained a grade of "80" or better in Algebra II/Trigonometry, Honors Physics/Lab, and teacher recommendation.*

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## **Art Experiences**

Grades 9-12

Art Experiences introduces students of all levels to the world of art and design. Since this is an introductory level class, students will be offered opportunities to create works using numerous materials and techniques. The course explores basic media including drawing, painting, printmaking, design, and sculpture. Student artists will begin to develop a vocabulary in composition and various media while exploring personal solutions for problems in the arts. This course provides a backdrop to other classes in the visual arts program and allows students the chance to create a cumulative portfolio of their best works.

## **Ceramics**

Grades 9-12

Students will explore clay as a medium for creating both functional and non-functional pottery pieces. Students are exposed to the visual history of ceramics, as well as the basic hand building techniques of ceramic construction and wheel throwing. As students progress through the year, they will have the opportunity to expand upon their skills and develop a proficiency in the use of clay.

## **Ceramics II**

Grades 10-12

Students will continue to explore ceramics as a medium for creating a series of functional and non-functional pottery projects culminating in a portfolio of their best work. Students will learn about different types of clay properties and firing processes including low fire, high fire and raku firings. Students will also learn to create work in a themed series and how to include verbal interpretation of their work and the work of others through critique. In addition, students will learn advanced hand-building construction, wheel-throwing techniques, and glazing techniques while working on developing their own personal style. Students will have the opportunity to expand upon their skills and develop a proficiency in the use of clay.

Prerequisites: Successful completion of Ceramics with a grade of "80" or better and teacher recommendation.

## **Photography 1**

Grades 9-12

This course provides students with the fundamentals of both traditional film and digital photography using both formats to enhance their creative photographic skills and techniques. Students will spend the year learning how to properly use film cameras, develop film and print images using the darkroom facility. Students will also learn how to use Photoshop techniques, such as how to crop, enhance and edit images. Emphasis on composition using the elements and principles of design will occur throughout the course. Students will develop techniques and methods to use photography as a means of visual communication and self-expression. Throughout the course, students will develop a cumulative portfolio of their work. A 35 mm manual film camera is required.

## **Honors Photography**

Grades 10-12

This course is for students with one year of previous coursework in photography. The use of photography as an expressive tool is approached by study and application of advanced methods and subject matter in the photographic process. Students will experiment with conceptual subject matter and advanced techniques using both traditional and digital photographic formats. Students will increase their skills in the darkroom and develop a broader understanding of Photoshop editing. Students will work on both teacher assigned and self-generated projects throughout the year as they begin exploration of their area of interest in the photographic medium. A 35 mm film camera is required.

Prerequisites: Photography 1 and teacher recommendation.

## **Do-It-Yourself Design**

Grades 9-12

The Do-It-Yourself Design course provides students with the unique opportunity to learn how to design functional and aesthetic works of art. 21st century problem-solving skills will be utilized to create projects that are both utilitarian and decorative. Work produced in this course can be used in real-life applications. Encompassing a wide range of media and techniques, this course will allow students to create “Pinterest-style” home decor such as jewelry designs, crafts, textiles, and sculptural designs. Students will explore a wide range of media incorporating, including, but not limited to, wood, wax, glass, paper, tile, photographs, yarn, recycled objects and more. Some of the varied artistic processes that are addressed include photographic image transfers, knitting, beading, weaving, and ceramic hand building.

## **Introduction to Graphic Design**

Grades 9-12

This course will introduce students to the concepts of Graphic Design, its history, typography, vector illustration, design principles and production processes using current industry standard technologies. It will be project-based and center on real-world application of skills in order to creatively solve problems that exist in the design industry today across various career fields including; editorial, advertising, logo identity and branding, fashion, promotional, product and packaging design. Students will learn the basics of Adobe Illustrator and some aspects of Adobe Photoshop in order to produce original designs that integrate imagery with type. Students will employ a visual language relating to composition and aesthetics through the process of critique. Students will engage in discussions regarding how graphic design and visual communication influences their daily lives now more than ever before. This class is a perfect complement for those students interested in business, marketing, or entrepreneurship, as well as those interested in creative design professions.

*Note: Students who have previously taken Digital Arts, see Honors Graphic Design for further coursework in this area.*

## **Honors Graphic Design**

Grades 10-12

This course covers the advanced study of graphic design, visual communication and production processes. Students will further their understanding of graphic design and improve their abilities in composition, typography, layout and design as well as expand upon the foundations learned in Introduction to Graphic Design. Projects will center upon real-world application of skills in order to creatively solve problems that exist in the design industry today, across various career fields. Students will work independently and in teams to explore and create editorial designs, advertising campaigns, corporate identity and branding, fashion design, promotional items, and packaging design. Where possible, students will expand their designs into workable prototypes, moving from 2D layouts on their screen into physical 3D mock-ups. Students will engage in class critiques after each project to reflect upon the design process and share constructive feedback for future improvement. Throughout this course students will create comprehensive projects that can be used in a design portfolio, showcasing a student’s best work and preparing them with a solid foundation for a future major or career in design.

*Prerequisite: Intro to Graphic Design (previously Digital Arts).*

## **Honors Drawing and Painting**

Grades 10-12

Students will produce both teacher-assigned and self-generated independent projects using a wide range of artistic media. The focus of this course is on two dimensional drawing and painting techniques with the overall goal of creating a cohesive portfolio of their best work. Students may generate several pieces that they can take with them to the more advanced follow up course, AP Studio Art. Students will also be exposed to a greater depth of art history and artistic movements that relate back to the course projects.

*Prerequisites: Art Experiences, portfolio review, and teacher recommendation.*

## **AP 2-D Art and Design (Photography)**

Grades 11-12

AP 2-D Art and Design Photography is intended for the serious, committed photography student who wishes to pursue visual art at a college level. This course provides students with the opportunity to explore a wide range of photographic techniques and darkroom methods and prepares them for a college major in Studio Art. Students will work both inside and outside of class to create a portfolio to be submitted to the College Board. Students will work on projects that use various

methods and topics that explore the medium of photography and work on their own topics where they explore a particular design idea or concern. Students' commitment to the course is essential to the success of their portfolio.

Prerequisite: *Two years of art classes, portfolio submission and departmental review.*

*A summer assignment may be required.*

## **AP Art History**

Grades 10-12

This course explores such topics as the nature of art, its uses, its meanings, the process of art making and responses to art. Through investigation of diverse artistic traditions of cultures from prehistory to present from both western and nonwestern cultures, the course fosters in-depth understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms, constructing understanding of individual works and interconnections of art-making processes and products throughout history. The course is designed to be the equivalent of a two-semester introduction college or university art history survey course. Students enrolled in this course are preparing for and are expected to take the AP examination in Art History in May.

Prerequisites for sophomores\*: *Minimum grade of "90" or better in World History and English 9.*

Prerequisites for juniors and seniors. *Minimum grade of "85" or better in Honors U.S. History and any honors English course.*

*A summer assignment may be required.*

## **AP Drawing**

Grades 11-12

This course is intended for serious and committed art students who wish to begin creating artwork at the college level. AP Drawing focuses on advanced media processes and is inquiry based. Students create and assemble artwork both inside and outside of class in preparation for the AP Studio Art digital submission. During the first semester, students work on teacher-assigned topics which are designed to broaden understanding of various visual media. During the second semester, students develop a series of visually cohesive artworks. The expectation of this course is that students work, independently and rigorously, to complete and assemble a portfolio.

Prerequisite: *Two years of art classes, portfolio submission and departmental review.*

*A summer assignment may be required.*

## **Dance**

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### **Dance**

Grades 9-12

This elective course is intended to introduce students to various aspects of dance. The course will include the following units of study: Elements of Dance and Kinesthetic Movement, History of the Arts and Culture, Influence of Dance, and Choreography and Performance. All students will choreograph, perform, and critique solo and collaborative pieces. Students will learn the importance of dance in various cultures, its impact across history, and its integration with visual and performing arts. This is an introductory-level course for those with little or no experience.

## **Business Education Full Year Courses**

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## **Introduction to Business**

Grades 9-12

This course is a combination of business and personal finance. The following units are covered: the economy and globalization; budgeting and savings; investing in the stock market, real estate and bonds; as well as credit, identity theft and risk management including insurance. The final unit covers students starting their own business and understanding the different business functions including marketing, finance and entrepreneurship. This course fulfills the financial literacy graduation requirement.

*Note: This course is not open to students who have taken or are currently enrolled in Financial Management or Personal Finance and Investment.*

*Recommended Prerequisite for Freshmen: Successful completion of Algebra I.*

## **Personal Finance and Investment**

Grades 9-12

Do you want to learn about the stock market and about how to manage money? This course will enable students to learn about the critical aspects of personal financial decision-making. Students will participate in a stock market game that simulates real-world investing. This course explores a broad range of today's asset/investment alternatives, including stocks, bonds, mutual funds, exchange-traded funds, savings instruments, real estate and collectibles. Students also learn about important financial topics such as purchasing/owning a car, saving for college, responsible credit card usage, and avoiding identity theft.

*Note: This course fulfills the financial literacy graduation requirements. This course is not open to students who have taken or are currently enrolled in Financial Management or Introduction to Business.*

*Recommended Prerequisite for Freshmen: Successful completion of Algebra I.*

## **Honors Principles of Financial Accounting (Ramapo College of NJ)**

Grades 11-12

This course introduces the student to fundamental accounting terminology and theory, including the accounting cycle, analysis, recording of transactions, and reporting financial information in accordance with Generally Accepted Accounting Principles (GAAP). Students are required to complete a comprehensive project that demonstrates their ability to analyze the financial statements of publicly traded companies and make an informed investment decision based on the analysis.

*Prerequisite for juniors and seniors: An average grade of "85" or better in high school math courses and be recommended by their high school math or business teacher.*

*Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this four credit Ramapo College course the cost of tuition is \$495. Tuition is subject to change.*

## **Marketing I: Promotion and Selling**

Grades 10-12

This course provides a detailed introduction to marketing and its impact on how consumers decide to spend their money. Students who take this course will apply marketing concepts to current trends and understand how marketing plays a vital role in business. Students learn how the "Four P's of Marketing" affect consumer decisions; how product promotion affects buying habits; and how pricing affects buying decisions. Instruction includes hands-on experiences by analyzing "real world" case studies of marketing successes and failures. Students will create and present an original promotional campaign. Students interested in marketing courses are strongly encouraged to take Introduction to Graphic Design.

## **Entrepreneurship**

Grades 11-12

In today's fast-paced, innovation-driven economy, students need a mindset that helps them identify and seize opportunities all around them. Entrepreneurs take initiative, solve problems, overcome challenges, learn from mistakes, and create opportunities. Entrepreneurship is an interdisciplinary course designed to help students develop an entrepreneurial mindset through inquiry-based learning. Students will identify, refine, and test the viability of their business ideas by completing market research, designing a marketing plan, and assessing finances and potential growth. The course culminates in a fact-filled, polished, and professional pitch of their complete business plan to their peers and guests. Come learn how an entrepreneurial mindset can make students more adaptable, more creative, and a better problem-solver and maybe even create jobs instead of searching for them!

Prerequisite: Successful completion of any business education course.

## **Honors Advertising and Branding (Fairleigh Dickinson University)**

Grades 11-12

This second level marketing course will allow students to combine their creative and analytical skills to explore all aspects of advertising, branding and market research. Throughout the duration of the course students will learn all facets necessary to launch successful advertising campaigns including market segmentation, various forms of advertising media, budgeting and media costs, writing an advertising proposal as well as creating the ads and promotions using Adobe Photoshop and presenting their ideas. In addition, students will learn to develop actual products from beginning to end, including branding, product positioning, packaging and label design. Students will also have the unique opportunity to work collaboratively with other departments in the building to create public service announcements that will be launched in the school.

Prerequisite: Minimum grade of "90" or better in Marketing: Promotion and Selling and teacher recommendation.

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Fairleigh Dickinson University course the cost of tuition is approximately \$237.00 for the course. Tuition is subject to change.

## **Honors Business Seminar**

Grade 12

This project-based business course will allow students to more deeply integrate concepts learned in core business classes. Because students will have had varied business course sequences prior to this class, this seminar course will enable them to broaden their individual knowledge of all business disciplines, such as operations, finance, marketing, human resources, and management. Students will develop their leadership and communication skills through a range of business opportunities including case studies, professional business speakers and lectures. Working in teams, students will develop a summative project that incorporates all facets of business learned throughout the program. In addition, each student will have the opportunity to work with an outside business mentor to gain insight on their projects, provide innovative solutions for the business and even have an opportunity to present their summative project upon completion.

Prerequisites: Business teacher recommendation and minimum grade of "85" or better in one of the following courses: FDU: Honors Advertising and Branding; Honors Management; Entrepreneurship; AP Economics; and Intro to Accounting.

## **Honors Management**

Grades 11-12

This course is designed for students interested in studying business management in a global economy. Topics include: principles of management, business ethics, diversity, international business, leadership skills, and human resource management. Project-based discussions develop around actual business case studies that emphasize the use of analytical and decision-making skills.

Prerequisite: Minimum grade of a "85" or better in any business education course.

## AP Economics

Grades 10-12

AP Economics is an introductory college-level course that will address real-world "macro" topics in the economy. Students will gain a thorough understanding of the economic system with emphasis on analyzing and interpreting economic data, measuring growth as represented by various indicators and gaining insights into the means by which government institutions address disruptions in the business cycle. Students will use graphs and charts to analyze, describe, and explain economic concepts. There will be frequent discussion of current economic events and policy. Students will be prepared to take the AP Macroeconomics exam.

*Note: Students will also have an additional opportunity to prepare for the AP Microeconomic exam. Students can work independently, with some guidance, to investigate economic decision-making by individuals and firms, the determination of quantities and prices of goods in different markets, and the determination of wages.*

*Prerequisite for sophomores\*:* Minimum grade of "90" or better in Honors Geometry or "80" or better in Honors Math Analysis (final grade will be checked in June).

*Prerequisite for juniors and seniors:* A minimum of "90" or better in Algebra II/Trigonometry or "85" or better in Honors Algebra II/Trigonometry.

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## Business Education Semester Courses

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### Financial Management

Grades 9-12

This one semester course promotes personal responsibility for financial planning, saving, credit, investing, and risk management. Financial literacy is essential in the 21st century as people exercise a wider range of choices in the inter connected, global economy. Students in this course will learn how to establish goals and budgets, analyze personal financial decisions, evaluate investment and savings alternatives, use credit responsibly, and manage financial risks. The course exposes students to "real world" scenarios and experiences such as case studies and a stock market game.

*Note: This course fulfills the financial literacy graduation requirement. This course is not open to students who have taken or are currently enrolled in Personal Finance and Investment or Introduction to Business.*

*Recommended Prerequisite for Freshmen:* Successful completion of Algebra I.

### Introduction to Accounting Concepts

Grades 9-12

This is an introductory semester course for students who will explore basic accounting skills and competencies and to determine whether they would be interested in a more advanced college level dual enrollment accounting class in subsequent years. Students will also learn about careers in accounting through guest speakers and also take on auditing and consulting roles while analyzing struggling businesses.

# CAREER & ACADEMIC PATHWAYS

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## **Advancement and/or Enrichment (Online and Seated)**

Grades 10-12

Advancement and/or enrichment courses are available to students who wish to study a content area or level beyond the scope of the Northern Highlands curriculum. To enroll in an advancement and/or enrichment course, a student must submit an application to the Career & Academic Pathways Coordinator for approval. Each student enrolled will work with the Career & Academic Pathways Coordinator and/or a faculty mentor to oversee course progress, and courses must include ongoing communications between the instructor and student, as well as regular interaction for purposes of teaching, evaluating, and providing assistance. If the course results in an assessed letter grade, a numerical grade will be awarded and included in the GPA. Otherwise, the course will be graded pass/fail. If applicable, all AP courses designated as College Board approved will be weighted accordingly. Any other online or seated college class will be weighted as honors level. Any costs incurred as a result of an online and/or seated course will be the responsibility of the parent/guardian. The Board of Education will not assume any responsibility for any fees associated with this program.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Department Supervisor, Director of School Counseling, and Principal must be obtained before enrolling in any online and/or seated course.*

## **Bergen Community College High School Partnership Programs**

Grades 11-12

Through a partnership with Bergen Community College, Northern Highlands students can earn college credit through the following programs:

- Early College Program - High-performing juniors and seniors can earn an Associate's Degree (60 credits) while still in high school.
- Bergen Prep - High-performing junior and senior students can take courses on the BCC campus while still attending high school during the school year or summer.
- Early Career - This option is designed for students who have not decided if they want to go straight to work after high school or attend college. Students can take coursework to become a Certified Logistics Associate/Certified Logistics Technician; Childhood Development Associate; and Medical Office Assistant.

Any costs incurred as a result of these programs will be the responsibility of the parent/guardian. The Board of Education will not assume any responsibility for any fees associated with this program.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Department Supervisor, Director of School Counseling, and Principal must be obtained before enrolling in this program.*

## **Community Service and Volunteering**

Grades 9-12

Community Service activities are those that students perform to benefit at least one other unrelated person and for which they receive no compensation. Additionally, students may not earn community service credit through activities associated with an existing Northern Highlands club. Students may use earned hours for their National Honor Society applications, but once a student is inducted, hours required by National Honor Society thereafter may not count toward the annual community service hours and credit. Community Service may be performed at any time during the students' high school career, but it cannot be performed during school hours. Students must perform 28 hours in order to earn 1.25 credits per year (must be completed between July 1 and June 30 of a given school year). Students could earn a maximum of 5 credits over 4 years, and these may be used as elective credits. Students will not receive credit for community service hours until the request has been approved by the Career & Academic Pathways Coordinator. Community service experiences are graded as Pass/Fail and are not included in the GPA.

## **Electrical Apprenticeship Program (IBEW/NECA)**

Grades 11-12

Through a unique program called Interim Credentials, students can take five courses completely online, which would fulfill the first year of an electrical apprenticeship after graduation. In a gamified learning environment, students learn about DC

Theory, blueprints, codes and safety, and job opportunities. In addition to Northern Highlands, ten other schools nationally are partnering with NECA/IBEW to offer students this opportunity to learn a skilled trade in a safe environment. Any costs incurred as a result of this program will be the responsibility of the parent/guardian. The Board of Education will not assume any responsibility for any fees associated with this program.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Department Supervisor, Director of School Counseling, and Principal must be obtained before enrolling in this program. A grade of "80" or higher in Algebra II is strongly recommended.*

## **Independent Study**

Grade 12

Independent Study is available to a student who wishes to study a content area or level beyond the scope of the Northern Highlands curriculum. The experience is truly "independent" in that there is a high level of autonomy and each pathway requires dedication, responsibility, and accountability on the part of the student. Each student enrolled in an Independent Study will have a faculty mentor and possibly a career-based mentor (if available and/or applicable). All Independent Study students are responsible for developing a learning plan in collaboration with the faculty mentor and the Career & Academic Pathways Coordinator. At the conclusion of the Independent Study, the student will make a final presentation to show evidence of learning.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Department Supervisor, Director of School Counseling, and Principal must be obtained before enrolling in Independent Study.*

## **Ramapo College Rise Program (Senior Option)**

Grade 12

Through a special partnership with Ramapo College of New Jersey, Northern Highlands will allow qualified students to enroll in courses during their senior year at Ramapo College that not only will satisfy Northern Highlands graduation requirements, but also will allow students to earn college credit. It is the responsibility of the Northern Highlands student to review his or her final schedule with an appropriate counselor to make sure all courses taken meet high school requirements. The following criteria must be met in order to be eligible to attend Ramapo College of New Jersey: 1) A cumulative GPA of 3.3 or better after junior year at Northern Highlands; 2) Pass all portions of the assessment(s) required by the State of New Jersey for high school graduation; 3) Achieve qualifying test scores on the SAT, ACT, or Accuplacer prior to June of junior year. Any online and/or seated college class will be weighted as Honors level. This program offers up to four (4) college credits at a reduced Northern Highlands tuition rate. Any costs incurred as a result of an online and/or seated college course will be the responsibility of the parent/guardian. The Board of Education will not assume any responsibility for any fees associated with this program.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Department Supervisor, Director of School Counseling, and Principal must be obtained before enrolling in any online and/or seated course.*

## **Senior Internship**

Grade 12

The Senior Internship provides eligible rising seniors and current seniors with an opportunity to engage in experiential learning outside of the traditional classroom environment. Through the in-depth internship, students will gain real-world experiences that are meaningful and relevant. Through this individualized learning opportunity, students will gain valuable interpersonal and intrapersonal skills that are critical components for college and career readiness. Students who complete the internship requirements will obtain credit for participating in a full year, half year, or summer internship. The internship program will be capped at 30 students per semester. Senior internship experiences will be graded as Pass/Fail and are not included in the GPA. Internship duration can include: summer (3 credits), semester one half day (7.5 credits), semester two half day (7.5 credits), full year (15 credits), or after school (credits determined by hours worked).

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Director of School Counseling, and Principal must be obtained before participating in the Senior Internship program.*

## **Success 101 (Bergen Community College)**

Grade 12

Success 101 is a one-semester, dual enrollment course through Bergen Community College, which is designed to help students achieve success in college and beyond. The course will focus on the strategies, habits, and values necessary for students to take charge of their own academic and personal growth. Emphasis will be placed on self-assessment, goal setting, written and oral communication skills, critical thinking, self-management, and study strategies. Students can earn up to 3 college credits.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Director of School Counseling, and Principal must be obtained before enrolling in this course.*

## **Wellness Physical Education**

Grades 9-12

Wellness Physical Education students have the opportunity to receive graduation credit through an alternative activity that meets or exceeds the District's PE requirement. A student must be involved in an *individualized* (not a team) rigorous training program that prepares him/her for competition in a sport on an elite or national level and must include intensive personal training sessions of at least 15 hours per week with a certified professional. Any costs incurred as a result of the program will be the responsibility of the parent/guardian. The student must submit a weekly competition/practice schedule, daily log of activities, and verification of hours from a coach to the Career & Academic Pathways Coordinator. Random site visits may also take place. The Wellness Physical Education program will be graded as Pass/Fail and will not be included in the GPA.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Department Supervisor, Director of School Counseling, and Principal must be obtained before enrolling in the Wellness Education program.*

## **Work-Based Learning**

Grade 12

Only seniors are eligible to participate in a paid work experience during the school day and receive an abbreviated schedule. Students must work a minimum of 15 hours/week, spread over a four-day period excluding weekends. The student must attach a letter from his/her employer indicating promise of employment, days per week, hours per week, employer's contact information including phone number and email. Northern Highlands reserves the right to contact the employer at any time, and may also request a student's pay stub to verify hours of employment. Students should submit a monthly timesheet to the Career & Academic Pathways Coordinator. Students are not eligible to take a study hall while participating in this program.

Please be advised that due to the fact that our Work-Based Learning Program is non-credit bearing, students will not be eligible to participate in a spring sport, as students will not have earned the required number of credits.

*Prerequisite: Prior administrative approval by the Career & Academic Pathways Coordinator, Director of School Counseling, and Principal must be obtained before enrolling in the Work-Based Learning program.*

# ENGLISH

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## 9th and 10th Grade English Courses

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### English 9

Grade 9

English 9 provides students with a fundamental understanding and appreciation of fiction and nonfiction, while improving their oral and written communication skills and developing effective reading, research, analytical, listening, and study skills through the student of the following units: The Predatory Nature of Human Existence; Finding and Creating a Just and Equitable Society; and, The Power, Fragility and Beauty of Being Human. Students will develop analytical and critical thinking skills while examining various literary forms including poetry, novels, essays, and short stories. Writing instruction includes creative writing, library and online research skills, and structured, formal writing, encompassing basic grammar skills and use of Modern Language Association (MLA) format. Emphasis is placed on cultivating appropriate classroom behaviors, organizational and study skills, and transitioning from middle school to high school.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### American Literature

Grade 10

This course is an examination of literary texts that identify significant American ideas and experiences. Students will be introduced to the skills of argumentation and literary analysis through close readings of essays, plays, short stories, poems and novels written by American authors through the following units: We Hold These Truths; None of Them Owns the Landscape: Idealism, Materialism, Symbolism; Everything's an Argument; Literature As Argument, and Civic Engagement and Classroom Closure. By the time the school year ends, all sophomores will have had two full years working with fundamental and essential English literacy skills.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### Honors American Literature

Grade 10

This course is a demanding and rigorous examination of literary texts that shed light on significant American ideas and experiences. Students will be introduced to, and begin to master, important skills of argumentation and literary analysis through close readings of essays, plays, short stories, poems and novels written by American authors through the following units: We Hold These Truths; None of Them Owns the Landscape; Idealism, Materialism, Symbolism; Everything's an Argument, Literature As Argument, and Civic Engagement and Classroom Closure. By the time the school year ends, all sophomores will have had two full years working with fundamental and essential English literacy skills. In the honors level class, students will be expected to display these skills both in class and independently.

Prerequisite: Minimum grade of "90" or better in English 9 and teacher recommendation

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## 11th and 12th Grade English College Preparatory Courses

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### Literature and Creative Composition

Grades 11-12

This course is for students who wish to study the art and craft of writing creatively. Students will read the work of contemporary writers in several genres as well as engage with the work of individual writers in greater detail in order to

analyze writing as both an art form and a professional craft. Students in this course will have opportunities to develop their own original creative work in the genres of fiction, poetry, drama, creative nonfiction, and digital writing.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Literature and the Individual**

Grades 11-12

In this course, students study a variety of literature about individuals and their attempts to find places for themselves in this world, focusing particularly on identity factors that help to shape them throughout this process. The course will explore the ways literature reveals how individuals are connected to one another through shared common experiences as well as the kinds of issues that impact the ways individuals develop and the access individuals have to opportunities in society through the study of the following units: Introduction to Reading, Writing and Metacognition; Race Ethnicity, and Culture; Sex, Gender and Social Construction; Coming of Age and Overcoming Personal Tragedy.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Literature About Society**

Grades 11-12

Literature About Society is a course that seeks to utilize literature as a vehicle by which students can explore the way in which present and historical societies shape, inhibit, and influence their citizens in positive and negative ways. Through a diversity of media, including novels, film, short stories, poetry, digital advertisements, and music, students will interrogate the invisible power structures that serve as underpinnings to our society, trace the individual's struggle to maintain individuality or innate goodness in spite of societal conventions, and critique the line between the individual and the societal. Students will examine the inherent structures of society (the political, the hierarchical, the social) and interrogate what said structures reveal about human nature through the study of the following units: Societal Structures and Power; Violence and Bias; Dystopian Realities; and Storytelling as Resistance.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Modern Fiction and Nonfiction**

Grades 11-12

Experiencing novels, plays, stories, and nonfiction from 1900 through the present day, students examine trends and themes of modern and contemporary thought. Students will read and analyze an author's choices for diction, style, syntax, and structure in fictional and informational texts in an effort to understand how form follows function and reflects societal concerns through the study of the following units: A Bridge to the Modern Era; Finding Meaning in the Modern World; Elevating the Genre and Media is the Message. Students also write clearly, establishing precise claims and citing strong and thorough textual evidence to support their theses. When possible, students make historical and intertextual connections, tracing the effects of life upon art and art upon life.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Science Fiction and Fantasy**

Grades 11-12

This course will focus on science fiction and fantasy as genres that engage the fundamental questions of human existence: morality, ethics, the nature of reality, and the purpose and meaning of life. We will critically examine the works as literature, considering representative themes and tropes, as well as the rhetorical methods that authors use to relate their visions. Students will also examine the social, scientific, and philosophical underpinnings of some of the major works of fiction, film, and television in both genres. Works considered may include a variety of short stories and fairy tales, *Shrek*, *The Hobbit*, *Harry Potter and the Sorcerer's Stone*, *The Hitchhiker's Guide to the Galaxy*, *Batman: The Long Halloween*, and *The Matrix*.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Senior English Seminar**

Grade 12



Are you the kind of student who has always wanted to choose what you want to read rather than what your teacher has selected? Do you enjoy creating your own arguments and actually having the time to explore and support them? Senior English Seminar both emphasizes and offers students the opportunity to work independently while also using guided lessons from the teacher that reinforces the focused skill. Senior English Seminar offers students the opportunity to work independently while still benefiting from guided lessons from the teacher. The class will focus on increasing and honing the reading and writing skills needed in college, the professional world, and life while encouraging academic independence.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## 11th and 12th Grade English Honors Courses

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### **Honors British Literature**

Grades 11-12

Honors British Literature is an upper level course that hones students' close reading skills, sophisticated writing skills (both informational and argumentative), verbal and presentation skills, and analytical and critical thinking skills via studying works created by British authors. Materials used in the course include plays, novels, poems, essays and artwork through the study of the following units: Expressing the Personal; Analyzing a Society Through a Literary Work; Interpreting Philosophy Through Literature; Using Lenses to Analyze Literature; and Finding Meaning in a Chaotic World.

*Prerequisite: Minimum grade of "90" in an English class and teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### **Honors Humanities**

Grades 11-12

Honors Humanities emphasizes a central question: "What does it mean to be human?" This survey course seeks to respond to the question by studying the literature of various periods and cultures in Western Civilization alongside the art and philosophy of those periods, as well as related contemporary works and readings. This course also emphasizes the skills needed to be an active reader and a strong writer. Students read and analyze both fiction and nonfiction texts, looking closely at authors' choices for diction, style, syntax, and structure in an effort to understand how form follows function and reflects societal concerns. Students will explore different human experiences and compare the literary commonalities that unite everyone across the ages through the following units of study: What Does It Mean To Be Human? Mythology and Storytelling; Ancient and Modern Tragedy; Storytelling; Making Sense of the Senseless; and Rhetoric as Control.

*Prerequisite: Minimum grade of "90" in an English class and teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### **Honors Modern Fiction and Nonfiction**

Grades 11-12

Experiencing novels, plays, stories, and nonfiction from 1900 through the present day, students examine trends and themes of modern and contemporary thought. Students read and analyze an author's choices for diction, style, syntax, and structure in fictional and informational texts in an effort to understand how form follows function and reflects societal concerns through the study of the following units: A Bridge to the Modern Era; Finding Meaning in the Modern World; Elevating the Genre and Diverse Voices. Students also write cogently, establishing precise claims and citing strong and thorough textual evidence to support their theses. When possible, students make historical and intertextual connections, tracing the effects of life upon art and art upon life.

*Prerequisite: Minimum grade of "90" in an English class and teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Honors Science Fiction and Fantasy**

Grades 11-12

This course provides an exploration of the genres of science fiction and fantasy through a variety of critical approaches. Students will explore the hero's journey in the face of epic challenges, ranging from the realm of magic and monsters, to futuristic extensions of logic, reason, and technology. Students will also examine the uniquely modern challenges of humanity's ever-evolving relationship with technology, as portrayed in over a century of science fiction. Together, we will contemplate the fundamental questions of human existence, using the questions posed in the texts to debate a variety of ethical and moral questions, as well as to examine the social, scientific, and philosophical underpinnings.

Prerequisite: *Minimum grade of "90" in an English class and teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Honors Writing Studio/Gender & Literary Texts (Syracuse University Project Advanced)**

Grade 12

This class is Syracuse's Freshman English course, emphasizing precise writing and literary analysis. For the first semester, the emphasis will be on an introduction to academic writing that focuses on the practices of analysis and argument, practices that carry across disciplinary lines and into professional writing. Students will be asked to annotate readings, experiment with different styles and organizational choices, and engage in a variety of drafting and revision activities. In the second semester, students will explore the construction and representation of gender, especially as it affects the production and reception of literary and other cultural texts. Students will analyze what gender comes to mean, how gender is constructed within particular historical and cultural formations, and examine its importance for literary studies. This is a writing-intensive course intended to familiarize students with the thought process, structures, and styles associated with writing in the liberal arts. In addition to promoting critical writing skills, this course fosters practices of close reading with a range of literary texts and informational texts.

Prerequisites: *Minimum grade of "90" in an Honors English course. A Writing Portfolio may be required.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

Note: *This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Syracuse University course the approximate cost of tuition is \$690.00 for the course. Tuition is subject to change.*

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## **11th and 12th Grade English Advanced Placement Courses**

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### **AP English Language and Composition**

Grade 11-12

AP Language and Composition is designed both to enhance the students' understanding of civics and citizenship as well as to comply with the needs of the AP English Language and Composition Exam. The approach of the course is thematic, which is reflected in the syllabus, and includes the following units: Introduction to Argumentation, Advanced Rhetoric, Basic Citizenry, Justice, and Science and Bioethics. Each unit is inspired by fundamental questions related to civics and active citizenship. Within each of the units, students will learn and discuss important content while understanding and practicing the advanced reading, writing, and thinking skills necessary for the AP exam.

Prerequisites: *Minimum grade of "90" in an Honors English course and the recommendation of an English teacher.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **AP English Literature and Composition**

Grade 11 -12

The course provides high-achieving juniors and seniors with opportunities to engage in close readings of texts and to practice analytical, critical, and creative writing. This course allows students to study the structures of fictional works through the author's use of tone, syntax and diction as students master their literary analysis skills, including, but not limited to, shorter fiction, poetry, full-length novels and plays. Students prepare for the May AP English Literature and Composition test by practicing their critical reading skills, exploring meaning, and practicing with past Advanced Placement examination Multiple Choice and Free Response questions.

*Prerequisites:* *Minimum grade of "90" in an Honors English course and the recommendation of an English teacher.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## **English Full Year Course Electives**

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### **Introduction to Theater and Acting**

Grades 9-12

This elective course is intended to introduce students to various aspects of the collaborative nature of theater. The course will include theater history, activities in technical theater crafts such as set design and decoration, costume design, and general elements of production. Some introductory activities will also be included, activities that will provide students with a framework for future acting courses. All students will perform some short pieces, either as a solo or within a group. This is an appropriate hands-on approach to theater for those with little or no background or experience.

### **Actors' Workshop**

Grades 10-12

This full-year elective course will expand on the talents of student actors who have already had significant theater experiences. Building on previous activities, students will develop their acting portfolio through performances and exercises, studying theater history and various theater movements, as well as engaging with different acting techniques. In addition to extensive script reading, many assignments will have significant writing, rehearsing and experimental components requiring students to challenge themselves with both classical and contemporary characters, scenes, monologues, and plays.

*Prerequisite:* *Introduction to Theater and Acting and a teacher recommendation.*

### **Actors' Workshop II and III**

Grades 11-12

This elective is designed for those students who continue to pursue their theater interests, in addition to the activities listed above, and with a yearly change in the material being used, theater practice can be further developed, through more challenging and expansive options, including directing, designing, leading and modeling for their classmates.

*Prerequisites:* *Minimum grade of "90" in Actors' Workshop and a teacher's recommendation; participation in at least two major school productions before enrolling in the course.*

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## **English Semester Courses**

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## **Creative Writing I**

Grades 10-12

Creative Writing I introduces students to poetry, short stories, dramatic writing (monologues, scenes and one-act plays), and memoirs. Wordplay encourages the joy of writing, and class sessions consist of writing of first drafts, readings and discussions of professional contemporary writers and students' own work, revision sessions, and one-on-one discussions of the students' work. Students are encouraged to submit their writing to the school literary magazine.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Creative Writing II**

Grades 10-12

This course is for students who wish to continue with writing after taking the first year creative writing course. In this advanced class, students may choose to concentrate on a certain genre, such as poetry or short stories, for much of the year. "Prompts" designed to inspire creativity and help the students avoid writer's block are given for in-class, first draft writing, but students may work on longer pieces over time, and will have frequent conferences with the teacher. Students will be asked to share their work with classmates in a workshop atmosphere, and to submit work to the school magazine, as well as entering various college-sponsored, outside contests. Whenever possible, the course will end with a public reading of student work.

*Prerequisite:* Successful completion of *Creative Writing I*.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## **Family and Consumer Sciences**

## **Foods and Nutrition**

Grades 9-12

This course is designed for students interested in food preparation and nutrition. Students learn basic food preparation skills through practical applications. Emphasis is given to the evaluation of students' diets and the ability to choose and prepare foods that promote lifetime health.

## **From The Kitchen To The Table**

Grades 10-12

Students will further develop skills acquired in Foods and Nutrition with a year-long course in baking and food preparation. Units include advanced techniques in pastry, cake, and specialty dessert preparation. Food preparation skills will be expanded through the study of international cuisine as well as thirty-minute meals for the college student.

*Prerequisites: Successful completion of Foods and Nutrition.*

## **Child Development**

Grades 11-12

The study of child development will include social, emotional, physical, and intellectual development of children from birth to six years of age. This course is designed to meet the needs of students planning to enter a career involving children, fostering better parenting skills, and developing a better understanding of themselves and others. This course includes the study of the theory of child development, as well as a practical application through participation in the Early Learning Center.

*Prerequisite: Approval of the instructor.*

## **Honors Tomorrow's Teachers (Fairleigh Dickinson University)**

Grade 12

This Fairleigh Dickinson University dual enrollment course is designed to meet the needs and interests of students considering a career in the educational professions. The course fosters personal, academic, and professional understanding in education theory, educational trends in American society, and human relations in the school and community. Honors Tomorrow's Teachers also features a nine-week field experience that includes classroom observation and assistance as well as practice teaching. Participants compose and compile a portfolio that constitutes the majority of the second-semester grade. Semester one is designed for instructional purposes; semester two will include a field experience at one of the Allendale, Upper Saddle River, or Ho-Ho-Kus school districts. Students must possess a valid driver's license.

*Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Fairleigh Dickinson University course the cost of tuition is approximately \$316.00 for the course. Tuition is subject to change.*

# **Health and Physical Education**

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9th Grade Physical Education is geared toward improving the physical fitness of students and developing their awareness of lifetime and cooperative activities. Students will be introduced to skills and strategies that will help them create and engage in a community atmosphere and develop and maintain a healthy lifestyle. Activities include ice breakers, small group and large group cooperative challenges, outdoor and indoor fitness activities. This course will give students a chance to improve their relationships, communication skills and self esteem while working on their all around wellness.

### **Grade 10 Physical Education**

The 10th grade Physical Education course will provide students with the opportunity to explore, develop and practice skills in activities designed for lifetime fitness. Students will gain further knowledge and develop a better understanding of the benefits of physical exercise. The benefits discussed will include physical, mental, social and emotional health. Through a variety of instructional methods, students will practice skills that demonstrate competency in fitness concepts and movement skills. Students will also demonstrate competency in game strategies through participating in small group and team activities. This will also provide students an opportunity to build and develop self-esteem, relationships, and communication skills.

### **Grade 11 and 12 Physical Education**

The 11th and 12th Grade Physical Education course is geared toward continuing to improve the physical fitness of students and enhancing their awareness of lifetime and cooperative activities. Students will be engaged in learned skills and strategies that will help them continue to develop and maintain a healthy lifestyle. Students will have an opportunity to choose from a variety of leisure activities and cooperative activities. High Ropes, an eleven-station challenge curriculum including rope elements, is a popular choice in the curriculum. Team Building I, which includes icebreakers and team building skills, is a requirement for all ninth grade students. High Ropes Adventure II, which is a high ropes course, is an option for eleventh and twelfth graders.

## **Health and Driver's Education**

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### **Grade 9 Health**

This course is designed to assist students in obtaining accurate information, developing lifelong positive attitudes and behaviors, and making wise decisions related to their personal health. Study will include personal and community health; mental, emotional, and social health; decision making, relationships, and communication; health products and medicines; commonly abused drugs, treatment, and support. Central themes are the acceptance of personal responsibility for lifelong health, respect for and promotion of the health of others, and informed use of health-related information, products, and services. This course is one marking and is a separate grade from Physical Education

### **Grade 10 Health: Driver Education (Safety Education)**

The course covers: licensing; registration of vehicles; insurance requirements; rules of the road; driving techniques; and driver attitudes. As a part of the recently passed requirements, organ donation is discussed and how it can be identified on a driver's license. The final examination is the New Jersey Motor Vehicle Commission test. A grade of 80 is necessary to pass the state examination. An 80 average for the course is required to receive credit toward a safe driving insurance discount. If a passing grade is achieved, the student will receive a receipt which, when presented at a Driver Qualification Center, will exempt them from the written portion of the licensing test. Also, upon passing the course, students will receive a card stating that they have successfully completed thirty hours of classroom instruction which is required to earn a premium reduction from most insurance companies. Students will also be involved in the Drug Abuse Resistance Education (D.A.R.E.) Program. Drivers Education health is one marking period in length and is separate from Physical Education.

### **Grade 11 Health**

This course is designed to assist students in obtaining accurate information on relationships, dating violence, LGBTQ education, sexuality, male/female reproductive systems, contraception, sexually transmitted infections and prenatal care.

Using an inclusive lens, students will engage in discussions around each of these topics by utilizing the following teaching methods; in-class cooperative learning, evidence based research and group projects through interactive technology. Students will be educated on the New Jersey mandates such as cancer screening, Safe Haven law, LGBTQ education, access to internal Northern Highlands Wellness Department resources as well as counseling and Planned Parenthood. This course is one marking period and is a separate grade from Physical Education.

## **Grade 12 Health**

The twelfth grade curriculum consists of the American Red Cross CPR and First Aid course. This will include instruction in lifesaving skills including Cardiopulmonary Resuscitation (CPR), obstructed airways, and using an Automated External Defibrillator (AED). Upon successful completion of the requirements, students will be certified in CPR/AED use and can purchase the certification card in the course. In the nutrition portion of the curriculum, students will track daily food intake and identify calories, fat, and carbohydrates, along with portion control. Senior health is one marking period in length and separate from Physical Education.

## **Health and Physical Education Semester Courses**

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### **Honors Dynamics of HealthCare (Rutgers University)**

Grades 10-12

This Rutgers School of Health Related Professions course provides an orientation to health care services and their delivery. Students who successfully complete the course will earn three college credits from Rutgers and 2.5 credits on Northern Highlands' transcript. This course is a prerequisite for all Rutgers courses at Northern Highlands. The class presents an interdisciplinary perspective focusing on process skills such as critical thinking, ethical reasoning, effective communication, and the ways to continue independent learning throughout life. The course shows how all health care providers acquire professional competency in dealing with the issues and problems they face as well as the role they play as informed consumers.

*Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Rutgers University course, students earning college credit (3 college credits) must sit for the online exam. A grade of "80" or higher is required for most Rutgers courses. While there is no charge for tuition, students will be responsible for the costs of any textbook required by the university as well as the exam fee of \$100.00. The exam fee is subject to change.*

### **Honors Medical Terminology (Rutgers University)**

Grades 11-12

Medical Terminology is the study of words that pertain to body systems, anatomy, physiology, medical processes and procedures and a variety of diseases. It provides specialized language for the health care team, enabling health care workers to communicate in an accurate, articulate and concise manner. This course is designed to give the students a comprehensive knowledge of word construction, definition and use of terms related to all areas of medical science. The course includes, but is not limited to terms related to anatomy of the human body, functions of health and disease, and the use of language in processing medical/dental records and claim forms.

Prerequisite: Honors Dynamics of Healthcare.

*Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Rutgers University course, students earning college credit (3 college credits) must sit for the online exam. A grade of "80" or higher is required for most Rutgers courses. While there is no charge for tuition, students will be responsible for the costs of any textbook required by the university as well as the exam fee of \$100.00. The exam fee is subject to change.*

### **Honors Scientific Principles of Nutrition (Rutgers University)**

Grades 11-12

This dual enrollment course outlines the relationship of diet, lifestyle, and the prevention of disease for healthy living. An overview of the digestion, absorption, and metabolism of protein, carbohydrates, fat, vitamins, and five minerals is provided. Nutrition needs at various stages of the lifespan are stressed. Applying the science of nutrition to life including needs for fitness and physical activity, evaluating nutrition claims, food labeling, and other consumer concerns are emphasized.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

*Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Rutgers University course, students earning college credit (3 college credits) must sit for the online exam. A grade of "80" or higher is required for most Rutgers courses. While there is no charge for tuition, students will be responsible for the costs of any textbook required by the university as well as the exam fee of \$100.00. The exam fee is subject to change.*

## MATHEMATICS

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### Typical Sequence for Mathematics

Grade 9	Grade 10	Grade 11	Grade 12
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Honors Math Analysis	Honors Pre-Calculus AP Statistics	AP Calculus BC AP Statistics	Honors Multivariable Calculus (or) AP Statistics
Honors Geometry	Honors Algebra II/Trigonometry AP Statistics	Honors Pre-Calculus AP Statistics	AP Calculus BC AP Calculus AB AP Statistics Honors Calculus
Geometry	Algebra II/Trigonometry	Pre-Calculus Statistics & Probability	Honors Calculus AP Statistics Statistics & Probability
Algebra I	Geometry *	Algebra II	Advanced Algebra/Trigonometry Statistics & Probability
		Algebra II/Trigonometry	Pre-Calculus Statistics & Probability

\* In sophomore year, students who have earned an assessment average of 95 or better in Algebra I and a teacher recommendation may double up in Geometry and Algebra II/Trigonometry so that they may take a Calculus course in senior year.

Enrolling in a summer school course or college course is also an option for students who wish to accelerate their mathematics sequence. Students must seek prior approval from the supervisor and principal.

## Algebra I

Grade 9-12

This course covers a rigorous foundation in skills involving the real number system, signed numbers, algebraic expressions, and solving equations, systems, and inequalities. An introduction of functions is developed and deepened through function notation, graphing, evaluating, operations of functions, and compositions of functions. Additional topics include graphing linear equations, polynomials, factoring, and solving quadratic equations. There is an emphasis on applications of these skills and topics infused throughout the course. This course bridges the gap between concrete ideas of arithmetic and abstract ideas for higher mathematics.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## Geometry

Grades 9-12

This course expands on first year algebra skills and introduces students to further foundational skills needed for future coursework on Algebra II/Trigonometry and Pre-Calculus. This course includes an in-depth study of Euclidean Geometry with an emphasis on the following: coordinate geometry and constructions which are infused throughout the course, parallel and perpendicular lines, angles, transformations, triangles, reasoning and proof, polygons and quadrilaterals, circles, area of plane figures, lateral and surface area of solids, and volume of solids. This course is designed to allow students to use mathematics as a tool for problem-solving and make further preparations for solving real world applications.

Prerequisites: *Successful completion of Algebra I and teacher recommendation.*

Prerequisite for incoming freshmen: *Multiple criteria will be used as determined and reviewed by the student's middle school principal.*

Prerequisites for sophomores who wish to double up in sophomore year, taking both Geometry and Algebra II/Trigonometry: *Minimum grade of "95" on assessments or better in Algebra I and teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## Honors Geometry

Grades 9-10

The subject of this course is the development of Euclidean Geometry with an emphasis on logical structure using inductive and deductive reasoning. Topics include parallel lines, congruent triangles, quadrilaterals, inequalities, similar polygons, right triangles, circles, areas of plane figures, geometric probability, and areas and volumes of solids. Units in coordinate geometry, transformations, and constructions will be introduced and infused throughout the curriculum, as well. Although direct and indirect proofs will be written, logical reasoning and applications in real world situations will also be emphasized.

Prerequisites: Minimum grade of “95” or better in Algebra I and a teacher recommendation.

Prerequisite for incoming freshmen: Multiple criteria will be used as determined and reviewed by the student’s middle school principal.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## Honors Math Analysis

Grade 9

This accelerated course presents topics covered in Honors Geometry and Honors Algebra II/Trigonometry. Students will study logic, deductive reasoning, parallel lines, congruent triangles, quadrilaterals, inequalities, similar polygons, right triangles, circles, constructions, coordinate geometry, area and volume. In addition, students will have an in-depth study of functions: general, linear, quadratic, piecewise, polynomial, and rational. Proofs and derivatives of formulas will be incorporated when appropriate.

Prerequisite for incoming freshmen: Multiple criteria will be used as determined and reviewed by the math supervisor.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## Algebra II

Grades 11-12

This course reviews first year algebra skills and introduces students to further foundational skills needed for future coursework. This course includes an in-depth algebraic and graphical approach to general functions and transformations, linear functions, quadratic functions, polynomial functions, and exponential functions. The course is designed to allow students to use mathematics as a tool for problem-solving and make further preparations for solving real world applications.

Prerequisites: Successful completion of Algebra I and Geometry.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## Algebra II/Trigonometry

Grades 10-11

This course expands on first year algebra skills and introduces students to further foundational skills needed for future coursework in Pre-Calculus and beyond. This course includes an in-depth study of the following: statistics, probability, and complex numbers, as well as algebraic and graphical approach to linear functions, quadratic functions, and polynomial functions; trigonometry of right and non-right triangles is also explored. This course is designed to allow students to use mathematics as a tool for problem-solving and make further preparations for solving real world applications.

Prerequisite: Minimum grade of a “75” in both Algebra I and Geometry and teacher recommendation.

Prerequisites for sophomores who wish to double up in sophomore year, taking both Geometry and Algebra II/ Trigonometry: Minimum grade of “95” or better in Algebra I and teacher recommendation.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## Honors Algebra II/Trigonometry

Grades 10-11

This course expands on first year algebra skills and introduces students to further foundational skills needed for future coursework in Pre-Calculus and Calculus. This course includes an in-depth study of the following: statistics, probability, and complex numbers, as well as algebraic and graphical approach to linear functions, quadratic functions, polynomial functions, rational functions, exponential functions, and logarithmic functions. A comprehensive study of trigonometry and circular trigonometry is explored. The course is designed to allow students to use mathematics as a tool for problem-solving and make further preparations for solving real world applications.

Prerequisites for juniors who wish to accelerate into Honors Algebra II/Trigonometry during their junior year: Minimum grade of "95" or better in Algebra I, "95" or better in Geometry and teacher recommendation.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Advanced Algebra/Trigonometry**

Grade 12

Designed for those students who completed Algebra II as juniors, this course continues the study of functions and includes trigonometry, probability and college algebra. A scientific calculator (required) is used extensively in this course. This course is not open to students who completed CP Algebra II/Trigonometry.

Prerequisite: Algebra II.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Pre-Calculus**

Grades 11-12

This course expands on first year and second year algebra skills and introduces students to further foundational skills needed for future coursework in Calculus. This course includes an in-depth study of the following: trigonometry of right and non-right triangles, trigonometric functions and identities, rational functions, and logarithmic functions. Students are introduced to sequences and series as well as elementary concepts of calculus, including limits. This course is designed to allow students to use mathematics as a tool for problem-solving and make further preparations for solving real world applications.

Prerequisites for rising seniors: Minimum grade of "80" or better in Algebra II/Trigonometry. Not open to students who took Algebra II.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Honors Pre-Calculus**

Grades 11-12

This accelerated course is primarily open to juniors who plan to enroll in AP Calculus as seniors. The course is designed around a rigorous study of the properties and applications of polynomial and transcendental functions. Emphasis is placed on efficient and effective problem solving strategies and techniques to derive fundamental properties of functions. Extensive use is made of graphing technology. This course ends with an introduction to calculus using limits.

Prerequisite: Minimum grade of "80" or better in Honors Algebra II/Trigonometry.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Honors Calculus**

Grades 12

This course is designed for students who opt not to take the AP Calculus course in their senior year. The course will prepare students with the fundamentals of calculus in preparation for college calculus. The course will introduce the concept of limits, techniques of differentiation and integration and its applications. Derivatives and antiderivatives of trigonometric functions, derivatives of exponential and logarithmic functions, and trigonometric functions will be explored. Techniques of integration using real world examples will be studied. Problem solving and applications are emphasized.

Prerequisite: Successful completion of Honors Pre-Calculus or minimum grade of “80” or better in Pre-Calculus.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **Statistics and Probability**

Grades 11-12

This course introduces major concepts and tools for collecting and analyzing data, and drawing conclusions. The main themes are: exploring data, describing statistics, sampling and experimentation, statistical inference and hypothesis testing. Basic concepts of probability and normal distributions are studied. Case studies in confidence intervals, correlation, and regression are also examined. Verbal communication, problem solving, and the use of technology are emphasized throughout the year. This is a practical and helpful course for many careers, including the social sciences business and engineering.

Prerequisite: Successful completion of Geometry and Algebra II/Trigonometry.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **AP Statistics**

Grades 10-12

This course introduces students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Problem solving and effective verbal communication is strongly emphasized and is necessary for success in the course. There is an abundance of interpretive reading that requires students to use inference skills. Students are exposed to four broad conceptual themes: exploring data; sampling and experimentation; anticipating patterns; and statistical inference. Topics in probability include geometric and binomial theorems, and the normal curve. Those students interested in social sciences, engineering, science and math are encouraged to enroll. Students are expected to take the AP examination in May.

Prerequisite for sophomores: \*Honors Math Analysis or minimum grade of “90” or better (as a final grade) in Honors Geometry and teacher recommendation.

Prerequisites for juniors and seniors: Honors Algebra II/Trigonometry or minimum grade of “90” or better in Algebra II/Trigonometry and teacher recommendation.

A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **AP Calculus (AB)**

Grades 11-12

Calculus AB covers differential and integral calculus topics that are typically covered in a Calculus I course in college. The course emphasizes theory as well as the applications of differentiation and integration. Concepts and problems are examined from a verbal, geometric, numeric, and analytical perspective. This is a rigorous, challenging, and demanding course that requires an intuitive knowledge of mathematics. It is expected that the students in this course will seek college credit, college placement, or both, as a result of successful performance on the advanced placement examination. Students are expected to take the AP examination in May.

Prerequisites: Minimum grade of “83” or better in Honors Pre-Calculus and teacher recommendation.

A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **AP Calculus (BC)**

Grades 11-12

The Calculus BC course covers Calculus AB topics, as well as additional topics in differential and integral calculus and

infinite series. This course is rigorous, challenging, and demanding, and is recommended only for those who appreciate and understand the theoretical aspects of mathematics. Additional topics are L'Hopital's Rule, logistic growth, Euler's Method, improper integrals, series convergence, and Maclaurin and Taylor Series. Students who perform well may receive up to two semesters of college credit. Students who take the Calculus BC examination will receive a Calculus AB subscore grade in addition to the Calculus BC grade. Students are expected to take the AP examination in May.

Prerequisites: Minimum grade of "90" or better in Honors Pre-Calculus and teacher recommendation. A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **Multivariable Calculus (Seton Hall University)**

Grade 12

This course is run through Seton Hall University's Project Acceleration and is designed for students who have successfully completed Advanced Placement Calculus BC and is weighted accordingly. It is intended for advanced students who have demonstrated thorough knowledge of Calculus I and Calculus II. The course expands upon single variable calculus while covering topics in more than one variable including vectors and matrices, parametric curves, partial derivatives, double and triple integrals, and vector calculus in two and three dimensional space. All topics are presented using multiple representations with the use of a graphing calculator. Topics are represented graphically, numerically, algebraically and verbally.

Prerequisites: Successful completion of AP Calculus BC, teacher recommendation and a 3 or higher on the AP Calculus BC exam. This will be confirmed over the summer.

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Seton Hall University course the cost of tuition is approximately \$400.00 for the course. Tuition is subject to change.

## **Mathematics Full Year Course Electives**

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### **AP Computer Science Principles**

Grades 10-12

AP Computer Science Principles introduces students to the foundations of computer science with a focus on how computing powers the world. Along with the fundamentals of computing, students will learn to analyze data, create technology that has a practical impact, and gain a broader understanding of how computer science impacts people and society. Students are expected to take the AP examination in May.

Prerequisite for sophomores only\*: Minimum grade of "90" or better in Honors Geometry or "80" or better in Honors Math Analysis (final grade will be checked in June).

Prerequisites for juniors and seniors: Minimum grade of "90" or better in Algebra II/Trigonometry or a minimum grade of "80" in Honors Algebra II/Trigonometry.  
for all grades.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

### **AP Computer Science A**

Grades 10-12

This course is designed for students who seek a challenge beyond Introduction to Computer Science and Honors Computer Science. The course focuses on comprehensive program development and implementation, using the JAVA programming language. Case studies and activities are used to analyze the logic behind effective data structure development using object-oriented programming. Debugging and efficient coding techniques are emphasized throughout the course, further incorporating in-depth analysis of real world applications and complex data structures. Students explore problem-solving in

mathematics, business, and other disciplines. They also have the opportunity to construct a functional portfolio of programs to use when applying for admission to college level computer-science programs. Students are expected to take the AP examination in May.

*Prerequisite for sophomores only\*:* Minimum grade of “90” or better in Honors Geometry or “80” or better in Honors Math Analysis (final grade will be checked in June) and demonstrated proficiency in computer science by passing a proficiency examination.

*Prerequisites for juniors and seniors:* Minimum grade of “85” or better in Honors Computer Science, including JAVA or AP Computer Science Principles, and a minimum of Algebra II/Trigonometry. If this is your first Computer Science course you must demonstrate proficiency in computer science by passing a proficiency examination.

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## Mathematics Semester Course Electives

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### **Introduction to Computer Science (Fall)**

Grades 10-12

This is the beginning course for students who would like to explore the history and development of computer science. Programming is introduced using ALICE where students will create movies and video games, controlling the behavior of three dimensional (3D) objects and characters in virtual worlds. Students will then begin creating their own games using Game Maker. In addition, students will learn how to create and publish their own original mobile apps using MIT’s App Inventor. Finally, students will design their websites using Brackets and have the opportunity to publish and maintain an active website through a free domain hosting system.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### **Honors Computer Science including JAVA (Spring)**

Grades 10-12

This is the follow-up course to Introduction to Computer Programming. More advanced computer science topics (including Arrays) are studied using the Visual Basic language. Students will create dynamic applications using Python Programming language. Also, students will begin the study of JAVA, a popular object-oriented language used in today’s practical applications (and utilized in the AP Computer Science course).

*Prerequisites:* Introduction to Computer Science.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

# Media Studies Full Year Courses

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## **Broadcast Television**

Grades 9-12

The first in a two-part instructional training program that gives students the tools and techniques to develop and produce on-air programming for Northern Highlands TV (NHTV). The program will develop and improve both storytelling skills and technical ability to ultimately curate news-packages. Techniques associated with entertainment and other genres will also be explored. Students will be given step-by-step instructions on how to use field and studio video equipment, ranging from cameras to voiceover techniques, audio capture, and basic video editing. Students will be able to improve their on-camera delivery through lessons that encourage on-air participation and develop presentation through both field and studio activities. In the studio component, students will get hands-on experience with equipment in the live TV studio and design full programs for airing on NHTV and for the morning news show. This is a program that caters to both the technical-minded student who would prefer to work behind the scenes as well as those who wish to have air-time.

## **Advanced Broadcast Television**

Grades 10-12

Advanced Broadcast Television is the second in the two part training program that further develops students' ability to create industry quality, on-air content for Northern Highlands TV. In this second level, students will be responsible for the full development and production of The NHTV Morning Show from writing to the live (or live on tape) studio broadcast. They will be given roles that mirror a working television station and be asked to implement organizational skills to complete tasks related to the development of the NHTV morning program. Using prior learning and professional newsroom mechanics, broadcast team members will learn higher level field news reporting techniques in both the editorial writing, as well as in on-camera and technical realms. Students will also increase their understanding of the technical capabilities and use of advanced TV studio equipment to enhance the quality and depth of creativity in each show that airs on NHTV and to provide career ready experience. Students will be given a chance in this stage to weigh in on what role they wish to perform in the production process, whether it's an on-air job or a behind the scenes position.

Prerequisite: Successful completion of Broadcast Television and teacher recommendation.

## **Digital Film Production**

Grades 9-12

Digital Film Production is a course for students who wish to start the development of skills in the use of video cameras and digital editing software. Students create short films that are designed to entertain, show understanding of the art of filmmaking, and express personal visions and understanding of their world and of people. Techniques include idea forming, storyboarding, scripting, lighting, cinematography, microphone treatment and application, and sound recording. Students will analyze and discuss the techniques used by Hollywood film-makers and apply the techniques to their work in the course. Students will participate in the production of a substantial narrative video piece that will be presented in an appropriate school venue. Additionally, the work produced by students will be broadcast for public viewing in the school, on local public access channels, as well as be submitted to local, national and international film festivals.

## **Advanced Digital Film Production**

Grades 10-12

This course continues the development of Digital Film Production and is a course for students who wish to learn and expand their skills in film making and general production. As in the pre-requisite course, students will create films that express personal visions and understanding of their world and of people. A mastery in techniques including brainstorming, storyboarding, scripting, lighting, camera management, microphone treatment and application, and sound recording will all be developed. Students will analyze and discuss the techniques used by Hollywood film-makers and apply the techniques to their work. In addition students will learn about Independent film development including; budgeting, staff management, auditioning, working with actors, feeding and working with crews and pitching a script. It is the goal of this class that the students will participate in the production of a substantial narrative/abstract film which will be presented in a final film showcase for the public on campus. Additionally the work produced by students will be broadcast on NHTV Studios Youtube Channel and submitted to multiple local, national and international film festivals.

Prerequisite: Successful completion of Digital Film Production and teacher recommendation.

## **Sports and Media Broadcasting**

Grades 10-12

Sports and Media Broadcasting is a full year course which trains students in the art of live sports play by play, color commentary, and sideline reporting. Topics of study include how to research teams, rosters and storylines for games including game day and event preparation. Rules and gameplay for a variety of sports in terms of how they are played and how they should be covered. The course will also detail best practices, standard guidelines for professionalism, electronic journalistic integrity, development of style and sports desk news anchoring technique. As part of the class students will call live games as part of NHTV's Northern Highlands Game of the Week broadcasts for each season they will learn anchoring skills including writing, reading, video editing and delivery of game highlights and sports news.

## **Media Studies Semester Courses**

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### **Film Studies**

Grades 9-12

This semester course has the dual function of offering students an introduction to film studies at Northern Highlands or as an isolated elective choice. This does not function as a prerequisite to Digital Film Production. Students in this course will first learn what it takes to make a film before providing a critical analysis of some of the best films ever made. Students will learn and execute basic screenwriting skills, cinematography, editing, and lighting as well as gain an understanding of who works on films and what their roles are. Following that, students will begin critical analysis of silent movies and trace film techniques through history, leading to contemporary works in each of the main film genres: comedy, science fiction, horror, action, and drama.

### **Video Editing**

Grades 9-12

Video Editing is a semester course for all those who enjoy post-production video editing. There is no experience needed for this class. It is designed to advance the video editing skills of students who have a range of skill in editing from cell phones to editing studios to none at all. Students will become highly proficient with Adobe Premiere Pro, Audition and After Effects software and with specific techniques used in editing a wide variety of video projects. These range from films to news shows, special school segments such as pep rallies and year end videos, video entertainment and selective audio projects. Students will utilize green screen technology, motion graphics, and other animation to build high level, sophisticated videos. The class is designed to interface well with other media courses like Digital Film, Advanced Film, Broadcast TV, and other on campus visual design courses. As with other media classes, material produced from the class has the potential to be viewed by the school audience and general audiences abroad.

## **Multi-Disciplinary Courses**



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## Freshman Seminar

Grade 9

Freshman Seminar is a required multidisciplinary course for all ninth grade students. This course is designed to launch students' high school education by introducing numerous literacies in a dynamic, complex, and interconnected world. Students will develop their reading and writing skills through comprehensive engagement with language conventions, vocabulary, and expressive techniques to communicate a message to a particular audience. Connected to writing and expression, students will apply understanding of technological applications to interpret, analyze, evaluate, and create information in different subjects using multiple media. This course will cultivate 21st century skills, such as inquiry, research, collaboration, problem solving, and citizenship through an interdisciplinary lens.

## Learning Lab

Grade 9-12

Students receive individual and small group assistance in their current math and/or English course through direct instruction and with the use of technology. Learning Lab teachers are in contact with the students' teachers to help support daily lessons and assessment preparation. Students learn note taking skills, study skills, and techniques to improve their foundational skills in math, reading and writing. One additional goal is to prepare students for state mandated assessments and graduation requirements. Students receive five credits per year and a grade of a pass or fail.

## Public Speaking

Grades 9-12

Communication is the bedrock of all human relations. While technology and media can aid communication, each can make it more complicated and demanding. Regardless of a future career, all students will need to speak effectively to an audience of interested people with and without technology. Students will want to make sure the audience receives certain information and makes a connection as a speaker. This semester course is aimed at building confidence, competency, and pride in public speaking. While learning skills and habits, students will have the opportunity to refine their speaking and listening.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## AP Seminar

Grades 11-12

This course is part of a two year AP program that engages students in research practices that are based in inquiry. Students should be independent in their studies and enjoy self-paced work with a commitment to mastering the synthesis of research, analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students will be encouraged to develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. This course will well-prepare students for AP Research.

Prerequisite: A grade of "90" or better in an Honors course and teacher recommendation.

## AP Research

Grade 12 (beginning 2023-2024)

In the second year of the two-year program, students deeply explore an academic topic, problem, issue, or idea of individual interest. Students will be able to draw on the mastery skills acquired in AP Seminar and design, plan, and implement a year-long study of their own research questions. Students will also build on the research skills in AP Seminar while furthering their study of methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students will reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. In accordance with the College Board, the course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense. With scores of three (3) or better in each Capstone course, along with scores of three (3) or more four (4) other AP courses, students are awarded an AP Capstone Diploma.

Prerequisite: AP Seminar and teacher recommendation.

## Quantum Computing

Grade 10-12

Qubit by Qubit's Introduction to Quantum Computing is a cutting-edge course designed to introduce high school students to the exciting world of quantum computing. Quantum is the next frontier of computing technology and will revolutionize fields such as healthcare, finance, and cybersecurity. If students are interested in math, computer science, electrical engineering, or physics, you will find that quantum computing lies right at the intersection of all these fields. It also has important applications in biology, chemistry, and economics, which we will also explore in this class. Students do not need a background in quantum computing or computer science to take this course. Topics covered include basic linear algebra, probability, and Python coding basics. Students will also spend time exploring the "weird" properties of quantum mechanics that make quantum computers so powerful. By the end of this course, students will be able to code quantum gates and circuits, understand quantum algorithms and even run code on a real quantum computer. While students are scheduled for this class during an instructional period, this course is predominantly self-paced and virtual with a faculty member as a facilitator.

Prerequisite: Successful completion of Geometry.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## Music

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## **Chorus**

Grades 9

Chorus is primarily a performance ensemble, which performs in winter and spring concerts, and in other settings of the director's choosing. It is also a training ensemble, where students learn the skills necessary to improve as individual vocalists and chorus members. Students have the opportunity to apply these skills in both choral rehearsal and performance, further contributing to the success of the group. Students are encouraged to participate in local, regional, state and national select choirs.

## **Honors Concert Choir**

Grades 10-12

This is a vocal ensemble committed to a high standard of performance. The concert choir will study, analyze and perform a more advanced level (level 5 & 6) of repertoire than that addressed by the mixed chorus. This group performs in both the winter and spring concerts and other local and community events. The concert choir also represents Northern Highlands at selected festivals and competitions. Students are encouraged to participate in other select choirs at the local, regional, state, and national levels.

Prerequisites: *Teacher Recommendation.*

Criteria: *Ability to sing in tune with an advanced level of tone production; ability to sight read and evidence tonal memory; ability to follow vocal score.*

## **Symphonic Band**

Grades 9

This training ensemble bridges the skill level gap between the middle school and advanced high school level. Students gain valuable musical skills and experiences as they acclimate to high school expectations. Skills, behavior patterns, and attitudes learned in this class benefit every performance ensemble at the high school. Individual and group improvements are vital to the continued success of the high school instrumental program; students are prepared for participation in ensembles at the college level and beyond. Students are encouraged to participate in more select bands at the local, regional, state, and national levels.

Prerequisite: *Prior instrumental experience and performance is required.*

## **Honors Wind Symphony**

Grades 10-12

This performance ensemble builds upon Symphonic Band preparation and has concerts in the winter and spring, as well as performances at various local and community functions, festivals, and competitions. Students develop valuable musical skills and experience, utilizing an increasingly difficult and varied repertoire (levels 5 & 6). The skills, behavior patterns, and attitudes first learned in Symphonic Band will continue to benefit every performance ensemble at the high school. Opportunities to audition for and participate in select ensembles on the local, regional, and state levels are very actively sought, and students are strongly urged to partake of these opportunities.

Prerequisites: *Teacher Recommendation.*

Criteria: *Ability to play with an advanced level of instrumental technique and tone production; ability to sight read.*

**Note:** *Chorus/Symphonic Band Grades 9-12 Students receive equal time in vocal and instrumental music each week.*

**Note:** *Honors Concert Choir/Wind Symphony Grades 10-12 Students receive equal time in vocal and instrumental music each week.*

## **Recording/Audio Technology**

Grades 10-12

This class introduces the student to Digital Audio Workstation (DAW) software and hardware: Mixcraft, effects plug-ins, Melodyne, as well as the Microsoft operating system, used in the audio studio that utilize computers for Audio and Video.

Related equipment, including microphones, outboard processors and basic musical concepts and terms are covered. Students will learn how to create background soundtracks for film using the Mixcraft Loop Library. Skills will be developed in recording technique, including acoustics, microphone setup and placement, mixing, sampling and understanding the history of recording and audio production. Practical applications will include recording projects and providing live sound and audio recording.

## **AP Music Theory**

Grades 11-12

This course corresponds to two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills including dictation and other listening skills, sight-singing, and keyboard harmony are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the learning process. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized. This is a detailed presentation of the elements of music in preparation for the AP Music Theory examination, which students are expected to take in May.

*Prerequisite: Teacher recommendation.*

*A summer assignment may be required.*

## **Music Semester Courses**

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### **Guitar Academy**

Grades 9-12

This semester course provides the student an opportunity to learn basic guitar skills and techniques through study of various styles of music for the guitar. Guitar Academy is designed to develop the basic skills necessary to be a successful performer and overall musician or build on their current level of proficiency and knowledge of the guitar through the study of music theory, vocabulary, historical references, performance opportunities, recording, and creative composition. Guitars and methods books will be provided in school but students are encouraged to purchase/rent a guitar for home practice. No prior guitar playing experience is required.

### **Music and the Movies**

Grades 9-12

This semester course will examine the development of music in film from its origins in 19th century musical traditions to the modern day. The class emphasizes analysis and the relationship between music and narrative films. Students will study the overall history and trends in the development of film music and explore the role of music in storytelling and its ability to enhance the emotion felt by an audience. The study of film often centers on the visual aspects of the medium with little attention given to the important role that music plays. The purpose of this course will be to obtain an increased awareness of the many functions of film music and learn about its prominent role in the cinema.

### **Rocking Through the Ages**

Grades 9-12

In this semester course, students will recognize the development of music from a historical and cultural perspective. Students will understand the fundamentals of music and discover basic music terminology, and instrument families. These elements will then be used throughout the course as a foundation for discussion of music throughout history. Eras covered will include the fifties through today. Students will gain an understanding of the context in which music was created by recognizing and aurally identifying style characteristics, genres, and representative masterworks from various periods and how that ties into the culture of the period. The course utilizes listening examples of influential artists alongside historical context to gain greater understanding of the growth and development of music. Students will explore artistic ideals and issues related to the worldview reflected in music.

## **SCIENCE**

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### **Typical Sequence for Science**

Grade 9	Grade 10	Grade 11	Grade 12
Honors Physics/Lab or AP Physics I/Lab	Honors Chemistry/Lab	Honors Biology/Lab AP Chemistry/Lab AP Physics C/Lab  Electives Forensics* Oceanography (s)* Astronomy (s)* Environmental Science (s)*	AP Biology/Lab AP Chemistry/Lab AP Physics C/Lab SUPA Honors Forensics* Honors Anatomy/Physiology I & II/Lab Oceanography (s)* Astronomy (s)* Environmental Science (s)* AP Environmental Science/Lab Sports Medicine/Anatomy* Forensics*
Geophysics/Lab	Chemistry/Lab Honors Chemistry/Lab	AP Physics I/Lab  Biology/Lab Honors Biology/Lab  Electives Forensics* Oceanography (s)* Astronomy (s)* Environmental Science (s)*	AP Biology/Lab AP Chemistry/Lab AP Physics I/Lab SUPA Honors Forensics* Honors Anatomy/Physiology I & II/Lab Oceanography (s)* Astronomy (s)* Environmental Science (s)* AP Environmental Science/Lab Sports Medicine/Anatomy* Forensics*

\* no additional lab time required  
(s) semester course

### Departmental Notes

1. Geophysics/Lab, Chemistry/Lab, and Biology/Lab courses must be taken in sequential order.
2. Classes assigned to a lab will have that period removed from wellness education; however, if a student has a study hall, the lab will come out of study rather than physical education class.
3. Students wishing to double up in a lab science must take a study hall to accommodate labs.
4. Students who wish to enroll in AP Chemistry/Lab as sophomores or AP Biology/Lab as juniors may do so with prior approval of a summer course, or college level course.
5. Based on NJDOE requirements, students must take the NJSLA-S at the conclusion of grade 11.

Students may choose to opt-out of dissection on the following life science courses: Honors Anatomy & Physiology/Lab, Sports Medicine/Anatomy. Consult the Student/Parent Handbook and/or the instructor's Canvas page for details concerning the opt-out process.

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## Physics Courses

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### Geophysics/Lab

Grade 9

The Geophysics course is designed to develop student understanding of the four core ideas in the physical sciences in the context of the Earth. These ideas include forces and motion, interactions between objects and systems, thermo energy, electricity and magnetism, and waves as they apply to our understanding of global climate change, the motion of Earth's crust, the future of space travel, and current smart technologies. The intention of this course is to provide students with fundamental concepts to allow for expansion and connections in subsequent high school science courses while keeping students engaged with seeing the immediate application of said concepts aligned to physics. Students enrolled in Geophysics will develop a genuine understanding of the physical laws basic to all sciences and interrelationships and their

effect on the development of society, technology, Earth, and Earth-space systems. The course will employ a multi-activity/laboratory-based approach, including video demonstrations, computer and non-computer-assisted laboratories, as well as interactive computer simulations. Students are also expected to demonstrate understanding of several engineering practices, including design and evaluation.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Honors Physics/Lab**

Grade 9

The physics course is designed to develop student understanding of the four core ideas in the physical sciences. These ideas include forces and motion, interactions between objects and systems, thermo energy, electricity and magnetism, and waves. The intention is to provide students with fundamental concepts to allow for expansion and connections in subsequent high school science courses with a strong emphasis on math concepts and skills. Students enrolled in physics will develop a genuine understanding of the physical laws basic to all sciences and interrelationships and their effect on the development of society. The course will employ a multi-activity/laboratory-based approach, including video demonstrations, computer and non-computer-assisted laboratories, as well as interactive computer simulations. Students are also expected to demonstrate understanding of several engineering practices, including design and evaluation.

*Prerequisite for incoming freshmen: Multiple criteria will be used to determine placement.*

*Co-requisite: Honors Geometry.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **AP Physics I/Lab**

Grades 9-12

The course is a rigorous math-based physics course. It is designed to be equivalent to the first semester of an introductory college level algebra based physics course. A high level of achievement in algebra and geometry is mandatory. Students choosing to take this class will find it challenging, with extended study time requirements outside of class. Students are required to apply the principles learned in class to problem solving in homework, test, and laboratory settings. The major topics of study include: kinematics, Newtonian Mechanics, energy, harmonic motion, waves, sound, electrostatics and simple electric circuits.

*Prerequisite for incoming freshmen: Only freshmen enrolled in Honors Math Analysis will be eligible to take AP Physics I. (Please refer to page 3 for additional information).*

*Prerequisite for sophomores, juniors, and seniors: Teacher recommendation and minimum grade of a "85" or better in Honors Physics, or "95" in Physics/Lab, and a minimum grade of "85" or better in Algebra II/Trigonometry or concurrently enrolled in Algebra II/ Trigonometry.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **AP Physics C/Lab**

Grade 12

AP Physics C is designed to prepare the qualified physics student to take the Advanced Placement Physics C test in Mechanics and/or Electricity/Magnetism. This course requires the use of Calculus in the solution of problems. This includes: mechanics with motion in two dimensions, work, energy, momentum, rotation, oscillatory motion, universal gravitation and electricity/magnetism with electric forces and fields, capacitance, steady state and non-steady state circuits, magnetic fields and forces, and induction. Successful completion of this course and the AP Physics Examination in Mechanics and Electricity/Magnetism will provide an experience similar to that of two semesters of physics in engineering, physical science, mathematics or pre-med program at a university. This course requires a high degree of commitment to academic work and extremely strong mathematical analysis and problem solving abilities.

*Prerequisite: This is a senior course and requires science teacher recommendation and a strong performance in three*

*previous years of honors science.*

*AP Calculus is a co-requisite. Concurrent placement in AP level Calculus course is required. A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## Chemistry Courses

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### Chemistry/Lab

Grade 10

This chemistry course is designed for students to explore chemistry concepts using real world phenomena. Students will learn the chemical principles necessary for an introductory college chemistry course as well as entering a science related career. Topics of study include interactions of matter, chemical reactions, quantitative relationships, energy, solutions, and equilibrium. Students will blend these core ideas with scientific and engineering practices to explain chemistry core concepts. Scientific practices include developing and using models, planning and conducting investigations, analyzing and interpreting data, and using mathematical and computational thinking. The engineering practices put a realistic twist on the scientific method to give students the opportunity to experience how real scientists investigate problems.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### Honors Chemistry/Lab

Grade 10

This chemistry course is designed for students who are considering a science related career and who have shown superior aptitude and interest in science and mathematics. Students will explore chemistry concepts using real world phenomena to explore interactions of matter, chemical reactions, quantitative relationships, energy, solutions, and equilibrium. Students will blend these core ideas with scientific and engineering practices to explain chemistry core concepts. Scientific practices include developing and using models, planning and conducting investigations, analyzing and interpreting data, and using mathematical and computational thinking. The engineering practices put a realistic twist on the scientific method to give students the opportunity to experience how real scientists investigate problems.

*Prerequisites: Minimum grade of "75" or better in Honors Physics and Honors Geometry or teacher recommendation or a minimum grade of "90" or better in Physics/Lab and minimum grade of "90" in Geometry or teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### AP Chemistry/Lab

Grades 11-12

Advanced Placement Chemistry is a high mathematical, introductory college level course that builds upon the knowledge base gained in a first year chemistry course. This course emphasizes inquiry and reasoning skills as methods to develop the College Board's six Big Ideas and their corresponding enduring understandings. The areas of study include, but are not limited to: the structure of matter, the properties of matter, chemical reactions, rates of chemical reactions, thermodynamics, and equilibrium. Students will be required to do independent research and reading, write formal lab reports, and think analytically about problems they may never have encountered before. Students will be engaged in hands-on laboratory work, integrated throughout the course, which accounts for a minimum of 25 percent of the course time. Students are expected to take the AP Chemistry examination in May.

*Prerequisites: Minimum grade of "85" or better in Honors Chemistry, minimum grade of "85" or better in either Honors Algebra II/ Trigonometry or Honors Pre-Calculus or teacher recommendation.*

*Suggested co-requisite (if not taken previously): Honors Precalculus and Honors Biology. A summer assignment is assigned at teacher discretion.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## Biology Courses

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### Biology/Lab

Grade 11

This course focuses on the nature of life at all levels of structural organization. It emphasizes the similarities of basic life functions within the vast diversity of life forms. Students will describe the molecules that make up living things and explain how cells use energy to stay alive. They will show how cell structure relates to function and how cell division and gene mutation can result in evolutionary change. They will examine interactions between living things and the environment. Concepts will be reinforced by related laboratory experiences.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### Honors Biology/Lab

Grade 11

In this course, students explore the core concepts on which modern biology is based. Students will see how all forms of life are unified by the similarities in their organization and life functions. They will describe biologic molecules and explain the energy transformations that sustain life. They will show the relationship between cell structure and function, and between cell division and genetic variation, and describe how evolution is possible through sexual reproduction and gene mutation. Critical thinking and scientific inquiry skills are fostered through laboratory work, group activities, internet sources, and independent work.

*Prerequisite: Minimum grade of "75" or better in Honors Chemistry and teacher recommendation or a strong background in chemistry indicated by a minimum grade of "95" or better in Chemistry/Lab and teacher recommendation.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### AP Biology/Lab

Grades 11-12

The AP biology course is designed to be the equivalent of a college level introductory biology course. The intent of this course is to expose students to higher level biological principles, concepts, and skills and allow them the opportunity to apply their knowledge to real life applications. The core concepts of AP Biology are organized around biological principles called Big Ideas that permeate the entire course and focus on the following topics: the process of evolution drives diversity and unity of life; biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis. Big Idea 3: Living systems store, retrieve, transmit and respond to information essential to life processes; biological systems interact, and these systems and their interactions possess complex properties. In class, students are given opportunities to learn and apply their knowledge through the process of inquiry rather than learning solely from lectures and/or prescribed lab protocols. AP Biology is a challenging course that requires a strong Biology I (Honors Biology should be taken at Northern Highlands; summer Bio classes are not encouraged) and a Chemistry background. Students are expected to take the AP Biology examination in May.

*Prerequisites: AP Biology is offered to any student who has successfully completed Honors Chemistry and Honors Biology with a minimum grade of a "85" or better in both courses. Teacher recommendation is required.*

*A summer assignment may be assigned.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## Full Year Science Electives

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### Honors Anatomy & Physiology I & II/Lab (Rutgers University)

Grades 11-12



This course follows a sequential development of the major body systems in an organized and structured curriculum. The course is designed to give the students a selective overview of human anatomical structure and an analysis of human physiological principles. Labs will include slide work, dissection of various animals and study of the human skeleton. The course will also use computer simulated dissection.

Prerequisites: Minimum grade of “90” or better in Biology/lab or “85” or better in Honors Biology.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands’ teachers have been approved by the respective college/university to teach dual enrollment courses. For this Rutgers University School of Health Related Professions course, students earning college credit must sit for the online exam. A grade of “80” or higher is required for most Rutgers courses. While there is no charge for tuition, students will be responsible for the costs of any textbook required by the university as well as the exam fee of \$100.00. Exam fee subject to change.

### **Honors Forensic Science (Syracuse University Project Advance)**

Grade 12

Introduction to Forensics Science at Syracuse University explores the application of scientific methods and techniques to matters of law. Case details are evaluated with scientific logic, and principles and practices of physics, chemistry, and biology are used to analyze different items of physical evidence to support or disprove an interpretation in the scene. Historical cases, new technologies, and ethical considerations are also discussed. Topics include blood analysis, DNA comparison, drug chemistry and toxicology, fingerprints, autopsy and pathology, arson, firearms, and trace evidence analysis. Please note that portions of this course include mature content and graphic images. Students must follow the Physics First Curriculum: Physics, Chemistry, and Biology.

Prerequisites: Completion of Physics, Chemistry, and Biology, with a minimum grade of “80” in the most recent Honors level science course, or a minimum grade of “85” in the most recent Lab-level science course.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands’ teachers have been approved by the respective college/university to teach dual enrollment courses. For this Syracuse University course the cost of tuition is approximately \$460.00 for the course. Tuition is subject to change.

### **AP Environmental Science/Lab**

Grades 11-12

The goal of the AP Environmental Science course is to provide students with scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. The AP Environmental Science course is a demanding course designed to be the equivalent of a one semester, introductory college course in Environmental Science. Environmental Science is interdisciplinary; it embraces a wide variety of topics from different areas which include concepts of geology, biology, chemistry, and geography.

Prerequisites: Minimum grade of “85” or better in Honors Chemistry and Honors Biology and a minimum grade of “90” or better in Chemistry/Lab and Biology/Lab, or written recommendation from two science teachers. A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

### **Sports Medicine**

Grades 11-12

Sports Medicine is designed for the student who is interested in the study of anatomy and physiology and how sports affect these systems. Areas of emphasis include the study of anatomy, exercise physiology, nutrition, personal health and fitness, supplementation, physical therapy, kinesiology, athletic injury evaluation, rehabilitation of athletic injuries. Lab experiences are an essential learning tool and include blood pressures and heart rates, reflexes, joint assessments, ankle and various taping techniques, splinting and wrappings, and dissections.

Prerequisites: Successful completion of any level core science course.

## **Forensics**

Grades 11-12

This course studies the science behind how forensic scientists are used to solve crimes. Topics include history of forensic science, the crime scene, physical and biological evidence collection and analysis, microscopic investigations, hair and fiber analysis, determination of the time of death, and insect study. DNA evidence is also covered along with computer, document, and voice recognition as evidence. Please note that portions of this course include mature content and graphic images.

Prerequisites: Successful completion of the physics, chemistry, and biology sequence.

Note: Juniors who would like to enroll in this course must take biology concurrently.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **Science Semester Electives**

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### **Oceanography**

Grades 11-12

Students will be introduced to marine biology and oceanography through both the physical dynamics of the ocean and the interdependencies that exist within the various marine ecosystems. Students will learn about the physical structure of chemistry of the ocean, the diversity of ocean life, marine ecology, and the scope and impact of human interactions with the oceans. Laboratory experiences are embedded in the curriculum and will take place during the regularly scheduled class periods.

Prerequisites: Successful completion of any level Physics and Chemistry course.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

### **Astronomy**

Grades 11-12

Students are introduced to astronomy and the makeup and dynamics of the universe. Using powerful telescopes, the school planetarium, and the Internet, students learn how to identify Earth's place in the universe. Students also study the moon, planets, major stars and constellations, galaxies, nebulae, and other objects like black holes.

Prerequisites: Successful completion of any level Physics and Chemistry course.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

### **Environmental Science**

Grades 11-12

Some of the most pressing issues of our time revolve around the environment and more importantly climate change and working towards a sustainable future. The Environmental Science course provides students with scientific principles, concepts, and methodologies required to consider these issues and analyze climatic concerns both natural and human made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or

preventing them. The Environmental Science course is designed to be the equivalent to an introductory college course in Environmental Science. The course draws from diverse subjects, including concepts of geology, biology, chemistry, geography, politics, history, economics, and current events.

*Prerequisites: Successful completion of any level Physics and Chemistry course.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

# SOCIAL STUDIES

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## World History

Grade 9

This survey of world history places an emphasis on Post-World War II history. The course consists of units on China, the Middle East, the Indian Subcontinent, Africa and a concluding unit chosen by the instructor from a slate composed of Russia since 1991, Mexico, and Enlightenment era Europe. Students will become familiarized with each region's geography, recent history, dominant culture and place in global affairs today.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## United States History I

Grade 10

The course is organized thematically so students can investigate the meaning of U.S. history through the study of significant events, individuals, historical developments, and processes from early American history through the Early Modern period. Students will develop historical thinking skills, such as chronological reasoning, comparative reasoning, historical argumentation, and methods for analyzing historical events via primary and secondary sources. Students in this course will examine six major units of study in order to make connections among a variety of historical periods, events, and developments. The aim of this course is the promotion of civic aptitude via the study of a wide variety of social studies fields including geography, humanities, sociology, economics and politics.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## Honors United States History I

Grade 10

The course is organized thematically so students can investigate the meaning of U.S. history through the study of significant events, individuals, historical developments, and processes from early American history through the Early Modern period. Students will develop historical thinking skills, such as chronological reasoning, comparative reasoning, historical argumentation, and methods for analyzing historical events via primary and secondary sources. Students in this course will examine six major units of study in order to make connections among a variety of historical periods, events, and developments. The aim of this course is the promotion of civic aptitude via the study of a wide variety of social studies fields including geography, humanities, sociology, economics and politics. This course is a more intensive study of U.S. History I. Students with a grade of "B-" or better who exhibit strong writing skills will be eligible for AP U.S. History in their junior year.

Prerequisites: Minimum grade of "90" or better in World History or recommendation of current history teacher.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## United States History II

Grade 11

The course is organized thematically so students can investigate the meaning of U.S. history through the study of significant events, individuals, historical developments and processes from Modern and contemporary United States history. Students will develop historical thinking skills, such as chronological and comparative reasoning, historical argumentation, and methods for analyzing historical events via primary and secondary sources. Students in this course will examine five major units of study: The Potential and Perils of Becoming a Global Power, Postwar American Culture: Consensus and Contention, The Potential and Perils of Being a Superpower, Culture Wars, America in a Globalized World. The aim of this course is the promotion of civic aptitude and engagement through the study of social studies fields such as geography, humanities, sociology, economics and politics.

Prerequisite: U. S. History I.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## Honors United States History II (Bergen Community College)

Grade 11

This course is a more intensive study of U.S. History II with an emphasis on historical reading and writing by responding to document-based questions. The course is organized thematically so students can investigate the meaning of U.S. history through the study of significant events, individuals, historical developments and processes from Modern and contemporary United States history. Students will develop historical thinking skills, such as chronological and comparative reasoning, historical argumentation, and methods for analyzing historical events via primary and secondary sources. Students in this course will examine five major units of study: The Potential and Perils of Becoming a Global Power, Postwar American Culture: Consensus and Contention, The Potential and Perils of Being a Superpower, Culture Wars, America in a Globalized World. Students will be challenged to make connections among a variety of historical developments, periods and events. The aim of this course is the promotion of civic aptitude and engagement through the study of social studies fields such as geography, humanities, sociology, economics and politics. The course seeks to prepare students to be critical thinkers and active participants, aware of their roles in contemporary life, culture and the increasingly interdependent global society.

Prerequisites: Minimum grade of “70” or better in Honors U.S. History I or teacher recommendation. A minimum grade of “90” in U. S. History I or recommendation of the current history teacher.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: Students are permitted to take this course for high school credit only. If students would like to receive Bergen Community College credit, they are responsible for the tuition as required. For this Bergen Community College course the cost of tuition is approximately \$200.00 for the course and registration fee. Tuition subject to change.

## **AP United States History**

Grades 11-12

This course is a full survey of U. S. History from the colonial period to the present, focusing on content, strategies, techniques and skills needed in preparation for the AP examination. Students are expected to have strong writing skills and sit for the AP examination in May.

Prerequisites for juniors wishing to take AP U.S. History in lieu of either Honors U.S. History II or U. S. History II: Minimum grade of “90” or better in U.S. History I or a “80” or better in Honors U.S. History I, or teacher recommendation based on a student’s writing ability, which is a distinguishable element of performance for AP U.S. History.

Prerequisite for seniors wishing to take AP U.S. History as an elective: Teacher recommendation. A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **Full Year Social Studies Electives**

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### **Honors Global Citizenship and Service**

Grades 11-12

The course examines international issues confronting the world today. Emphasis is placed on the historical roots of upheaval and strife. Students will develop a detailed knowledge of regional crises and an appreciation of the obstacles the international community must navigate to restore stability. These crises include economic collapse, epidemics or pandemics, the persecution of minorities, the denial of human rights, political strife and military conflict. Students will demonstrate mastery of these issues through various forms of assessment. Much of the second semester is devoted to student teams completing a global service project as a culminating activity.

Prerequisites: Successful completion of an Honors U.S. History course or a minimum grade of “90” or better in a U.S. History course.

### **AP Psychology**

Grades 11-12

This college level course is designed to provide students with an experience similar to a college level introductory psychology class. Students develop an understanding of major core concepts and theories in psychology, learn basic skills of psychological research and experimental design, understand the ethical standards governing the work of psychologists, and apply psychological concepts to their own lives. All students will be held to skill standards designed to prepare them for success on the Advanced Placement Examination in May. Students are expected to take the AP examination in May.

*Prerequisites: Successful completion of any AP course offered in Social Studies, or a minimum grade of “85” in Honors U.S. History, or a minimum grade of “90” or better in U.S. History. Candidates who do not meet these requirements must have a teacher recommendation.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **AP European History**

Grades 11-12

This college level course focuses on the social, economic, and political developments in European history from 1450 onward. In preparation for the AP test, emphasis is on historical writing, including free response and document-based essay questions. Students are expected to have strong writing skills. Students are expected to take the AP examination in May.

*Prerequisites: Successful completion of any AP course offered in Social Studies, or a minimum grade of “85” or better in Honors U.S. History, or a minimum grade of “90” or better in U.S. History. Candidates who do not meet these requirements must have a teacher recommendation.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **AP World History: Modern**

Grades 10-12

This college level course will explore topics from approximately 1200 C.E. to the present. Students will develop a greater understanding of the dynamics of continuity and change across historical periods throughout this course. The course highlights the nature of changes in global frameworks and their causes and consequences, as well as comparisons among major societies. The Six Themes addressed in this course are Humans and the Environment; Cultural Development and Interactions; Governance; Economic Systems; Social Interactions and Organizations; and Technology Innovation.

*Prerequisites for sophomores: Minimum grade of “90” or better in World History and teacher recommendation.*

*Prerequisites: Successful completion of any AP course offered in Social Studies, or a minimum grade of “85” or better in Honors U.S. History, or a minimum grade of “90” or better in U.S. History. Candidates who do not meet these requirements must have a teacher recommendation.*

*A summer assignment may be required.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **AP U. S. Government & Politics**

Grades 10-12

This college level course provides an analytical perspective of government and politics in the United States. The course involves study of general concepts used to interpret U.S. politics through analysis of specific case studies. Students are expected to have strong writing skills. Completion of the course prepares students to take the AP examination in May.

Prerequisites for sophomores: Minimum grade of “90” or better in World History (as a final grade) and teacher recommendation.

Prerequisites: Successful completion of any AP course offered in Social Studies, or a minimum grade of “85” or better in Honors U.S. History, or a minimum grade of “90” or better in U.S. History. Candidates who do not meet these requirements must have a teacher recommendation.

A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **AP Human Geography**

Grades 10-12

The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to examine socio economic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The curriculum reflects the goals of the National Geography Standards (2012).

Prerequisites for sophomores: Minimum grade of “90” or better in World History and teacher recommendation.

Prerequisites: Successful completion of any AP course offered in Social Studies, or a minimum grade of “85” or better in Honors U.S. History, or a minimum grade of “90” or better in U.S. History. Candidates who do not meet these requirements must have a teacher recommendation.

A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **Honors Sociology (Syracuse University Project Advanced)**

Grade 11-12

This is an analytic, skill based introduction to sociology class that encourages students to see and think about the social world, themselves, and the relations between themselves and the social world in new ways. As this writing intensive course progresses, students should develop increasing skill in analytical reading and writing, sociological reasoning, empirical research and investigation, and the ability to make empirical and conceptual generalizations about self and societal in an increasingly global world. Major topics include: culture, groups, and social structure; the power and influence of the media; self and identity; social inequalities based on race, class, gender and sexuality; and social change. This is a college course offered through Syracuse University, and students must pay for the Syracuse University credits to receive a Syracuse University transcript.

Prerequisites: Minimum grade of “85” or better in Honors US I or Honors US II, or a minimum grade of “90” or better in US I and US II.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands’ teachers have been approved by the respective college/university to teach dual enrollment courses. For this Syracuse University course the cost of tuition is approximately \$460.00 for the course. Tuition subject to change.

## **Social Studies Semester Electives**

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## **Sociology**

Grades 10-12

Sociology is the study of social life, social change, and the social causes and consequences of human behavior. Life is social whenever we interact with others and over time these patterns of interaction become embedded into the fabric of our society. This course introduces students to the manner in which sociologists study society. Some of the topics that students may examine are the sociological perspective, research methods, culture, socialization: becoming human, social organization, social inequalities, deviance and conformity, social institutions, social change, folklore, and urban life.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Criminal Law**

Grades 10-12

This introduction to criminal law will involve the study of the agencies and processes involved in the criminal justice system, including the legislature, the courts, and the police. An analysis of the 4th, 5th, & 6th Amendment considerations during police investigations, arrest, and while moving through the judicial system will be emphasized. The course will also consider the roles and problems of the criminal justice system in a democratic society.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Psychology: Positive Psychology and Happiness**

Grades 10-12

This course will provide students with a general introduction to psychological principles and to delve into the subtopic of positive psychology. The focus of positive psychology is on the studying and fostering of factors and behaviors that create an environment in which individuals flourish. Students will examine what individuals can do to improve their happiness, health, empathy, leadership, goal setting, humor, achievement, and relationships. Students will then apply this knowledge in this project-based course.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

## **Psychology: Adolescent and Adult Health**

Grades 10-12

This course is a basic introduction to psychology with a general survey of psychological principles and research methods, as well as a more specific look at the socio-cultural factors that contribute to a person's overall psychological, emotional, and physical health. Topics will include the role of relationships, interpersonal conflicts, social norms, and risk factors on adolescent and adult health to inform both future personal and public health decisions.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

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## **WORLD LANGUAGES**

- There is a two year World Languages graduation requirement, preferably in the same language.



- Northern Highlands participates in the NJ Department of Education (NJDOE) State Seal of Bi-literacy Program, which recognizes students who attained proficiency in English and in another language or languages (either studied in school and/or spoken at home) by the time they graduate from high school. Eligible juniors and seniors can demonstrate English proficiency by meeting or exceeding expectations on the NJSLA ELA assessment and can voluntarily opt to demonstrate proficiency on a foreign language assessment approved by the NJDOE.
- ASL has been recognized by the state as fulfilling the world language requirement for high school graduation.

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## Exploring Languages and Cultures

Grades 9-12

This survey course is designed for students beginning their first year of study of languages and cultures, who may not plan to continue their study of language beyond two years. Students are introduced to Spanish, French, and Italian languages and cultures, as well as less frequently studied languages and cultures from Europe, Asia, Africa, and the Americas. The multi-cultural focus addresses different peoples and practices, and makes comparisons and connections with students' own heritage.

*Prerequisite: Teacher recommendation.*

## American Sign Language

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### American Sign Language I

Grades 9-12

The level 1 World Language American Sign Language (ASL) Curriculum includes four units of study: Self-Image, Our Families, School & Education, and Life Experiences. These units of study address the themes of personal identity and relationships, traditions and celebrations, global awareness and contemporary life, language and regional variations, and leisure and recreation. Students at this level of study are becoming self and culturally aware through readings, conversations, dialogues and projects that also include individual and paired activities. Full immersion in the target language in the areas of listening, signing, reading, and writing, will further strengthen each student's communicative competence. By the end of this course, the goal is for students to attain a level of Novice Low in interpretive reading and presentational signing, interpretive reception, interpersonal communication, and presentational writing.

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### American Sign Language II

Grades 10-12

The American Sign Language II Curriculum includes the following units of study: Our Role Within Our Families, Healthy Living & Nutrition, Teens & Technology and Leisure & Recreation. The study of American Sign Language is a cumulative experience. The second year course increases sign vocabulary, fingerspelling fluency, number incorporation, five grammatical parameters, eight morphological classifiers and expressive and receptive signing abilities. The history of ASL and Deaf Culture will be continued through authentic cultural materials and historical readings. Successful completion of this course will prepare students with those skills necessary for the ongoing study of American Sign Language. Students at this level of study are becoming self and culturally aware through readings, conversations, dialogues and projects that also include individual and paired activities. Immersion in the target language in the areas of signing, reading, and writing, will further strengthen each student's communicative competence. By the end of this course, the goal is for students to attain a level of Novice-Mid in interpretive reading and presentational signing, interpretive reception, interpersonal communication, and presentational writing.

*Prerequisite: Completion of American Sign Language I.*

*Approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### American Sign Language III

Grades 11-12

The American Sign Language III Curriculum includes the following units of study: Telling My Story, Milestone & Traditions, Contemporary Life and Health & Wellness. Students will continue to develop expressive and receptive language skills, complex vocabulary, grammatical structures, and cultural awareness. The history of ASL and Deaf Culture will be continued through authentic cultural materials and historical readings. Successful completion of this course will prepare students with those skills necessary for the ongoing study of American Sign Language. Students at this level of study are becoming self and culturally aware through articles, dialogues, class discussions and projects. Students will develop and create an American Sign Language portfolio that will provide them with the opportunity to encapsulate all their work throughout the year. By the end of this course, the goal is for students to attain a level of Intermediate-Low in interpretive reading and presentational signing, interpretive reception, interpersonal communication, and presentational writing.

Prerequisite: Completion of American Sign Language II.

Prerequisite: Completion of American Sign Language II.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## **French, Italian, and Spanish**

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### **French I Italian I Spanish I**

Grades 9-12

The level 1 World Language Curriculum includes four thematic units of study: *Self-Image, The Family Unit and Relationships, Exploring Our World, and Life Experiences*. Students at this level are becoming self and culturally aware through readings, conversations, dialogues and projects that also include individual and paired activities. Full immersion in the target language in the areas of listening, speaking, reading, and writing will further strengthen each student's communicative competence. By the end of this course, the goal is for students to attain a level of Novice-Mid in interpretive reading and presentational speaking, interpretive listening, interpersonal communication, and presentational writing.

*All approved for NCAAA DI and DII athletic eligibility (please refer to page 2).*

### **French II Italian II Spanish II**

Grades 9-12

The level 2 World Language Curriculum includes four thematic units of study: *Our Role within Our Families, Healthy Living and Nutrition, Teens and Technology, and Clothing and Shopping*. Students continue to be communicative, focusing on practical situations using language structures. The course further increases students' proficiency in the language and enhances and enriches cultural understanding. Students become more comfortable expressing themselves in interpretive, interpersonal and presentational modes. By the end of level two, the goal is for students to attain a level of Novice-Mid in interpretive reading, presentational speaking, interpretive listening, interpersonal communication, and presentational writing.

Prerequisite: Minimum of two years of language in middle school or Level I.

*All approved for NCAA DI and DII athletic eligibility (please refer to page 2).*

### **Honors French II Honors Italian II Honors Spanish II**

Grades 9-12

The level 2 World Language Curriculum includes four thematic units of study: *Our Role within Our Families, Healthy Living*

*and Nutrition, Teens and Technology, and Clothing and Shopping.* Students continue to be communicative, focusing on practical situations using language structures. The course further increases students' proficiency in the language and enhances and enriches cultural understanding. Students become more comfortable expressing themselves in interpretive, interpersonal and presentational modes. New subject matter is presented at a rapid pace in this enriched sequence, and reinforced through oral and written communication in interpretive, interpersonal, and presentational modes. Classes are conducted mostly in target language. By the end of level two honors, the goal is for students to attain a level of Novice-High.

Prerequisite: Recommendation of Level I teacher.

All approved for NCAA DI and DII athletic eligibility (please refer to page 2).

**French III**  
**Italian III**  
**Spanish III**

Grades 10-12

The level 3 World Language Curriculum includes four of the following thematic units of study: *Telling My Story, Milestones and Traditions, Travel and Transportation, Contemporary Life and Health and Wellness.* In this course, students learn to express themselves using more advanced grammatical structures in reading, speaking and writing pieces. By the end of level three, the goal is for students to attain a level of Intermediate-Low in interpretive reading, presentational speaking, interpretive listening, interpersonal communication, and presentational writing.

Prerequisite: Recommendation of Level II teacher.

All approved for NCAA DI and DII athletic eligibility (please refer to page 2).

**Honors French III**  
**Honors Italian III**  
**Honors Spanish III**

Grades 10-12

The level 3 World Language Curriculum includes four of the following thematic units of study: *Telling My Story, Milestones and Traditions, Travel and Transportation, Contemporary Life and Health and Wellness.* In this course, students learn to express themselves using more advanced grammatical structures in reading, speaking and writing pieces. By the end of level three, the goal is for students to attain a level of Intermediate-Low in interpretive reading, presentational speaking, interpretive listening, interpersonal communication, and presentational writing. Students profit from more advanced reading selections and from listening practice. Students in this advanced course proceed more rapidly with language structure exercises. Classes are conducted mostly in the target language. By the end of level three honors, the goal is for students to attain a level of Intermediate-Mid.

Prerequisite: Recommendation of Honors Level II or Level II teacher.

All approved for NCAA DI and DII athletic eligibility (please refer to page 2).

**French IV**  
**Italian IV**  
**Spanish IV**

Grades 10-12

The level 4 World Language Curriculum includes four of the following thematic units of study: *Travel and Transportation, Milestones and Traditions, Career Pathways and Future Endeavors, Fine and Performing Arts, and Communities and Cultures.* In this course, students learn to express themselves using advanced grammar structures. They learn to collect, share, and analyze data related to contemporary and emerging global issues, problems and challenges. By the end of level four, the goal is for students to attain a level of Intermediate Mid in interpretive reading, presentational speaking, interpretive listening, interpersonal communication, and presentational writing.

Prerequisite: Recommendation of a Level III teacher.

All approved for NCAA DI and DII athletic eligibility (please refer to page 2).

**Honors French IV**  
**Honors Italian IV**  
**Honors Spanish IV**

Grade 10-12

The level 4 World Language Curriculum includes four of the following thematic units of study: *Travel and Transportation, Milestones and Traditions, Career Pathways and Future Endeavors, Fine and Performing Arts, and Communities and Cultures*. In this course, students learn to express themselves using advanced grammar structures. They learn to collect, share, and analyze data related to contemporary and emerging global issues, problems and challenges. By the end of level four, the goal is for students to attain a level of Intermediate Mid in interpretive reading, presentational speaking, interpretive listening, interpersonal communication, and presentational writing. Students advance to reading selections of increasing length and difficulty and diverse literary forms. Reading selections are chosen for their cultural significance. Students bring their interpretive, interpersonal, and presentational modes of communication to a more sophisticated level, while studying literature from the target language. Classes are conducted in target language. By the end of level four Honors, the goal is for students to attain a level of Intermediate High.

Prerequisite: Recommendation of Honors Level III or Level III teacher.

All approved for NCAA DI and DII athletic eligibility (please refer to page 2).

**French V**  
**Spanish V**

Grade 10-12

The level 5 World Language Curriculum includes four thematic units of study: *Global Citizenship and Issues, Nourishing the Mind, Body and Soul, Media Influence, and Artistic Expression*. In this course, students learn about historical and cultural influences, geography and its effect on the economy, and daily life when living abroad. By the end of level five, the goal is for students to attain a level of Intermediate High in interpretive reading, presentational speaking, interpretive listening, interpersonal communication, and presentational writing.

Prerequisite: Recommendation of Level IV teacher.

All approved for NCAA DI and II athletic eligibility (please refer to page 2).

**Honors French V (Syracuse University Project Advance)**

Grade 10-12

This course, entitled French 201 Intermediate French at Syracuse University, focuses on systematic development of advanced level skills. Activities involve the use of film and video to develop note-taking skills; oral skills are honed in extended discourse, paragraph length accounts, role playing and interviews. Activities focus on understanding the facts and details of narration and description. Production of texts such as letters, journals, summaries and reports will be systematically developed.

Prerequisite: Three years of Honors French or a minimum "90" average or better in French IV, plus teacher recommendation.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Syracuse University course the cost of tuition is approximately \$460.00 for the course. Tuition is subject to change.

**AP French Language**

Grade 10-12

This level requires a high degree of proficiency. Listening and speaking skills are continuously analyzed and evaluated. Reading continues with a variety of original selections discussed in French, and writing skills are expanded to include analytical and creative papers/projects. Students enrolled in this course are preparing for and are expected to take the AP examination in French Language in May.

Prerequisite: Recommendation of Honors French IV teacher.

A summer assignment may be required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

### **Honors Italian V (Syracuse University Project Advance)**

Grade 10-12

This course, entitled Italian 201 Intermediate at Syracuse University, is a proficiency-based course that reviews understanding of the formal structures of language, refines previously acquired linguistic skills, and builds awareness of Italian culture. Authentic oral and literary texts are introduced. By the end of the course, students are expected to communicate effectively; giving and getting information; surviving predictable and complicated situations; narrating and describing in present, past, and future time; supporting opinions, and hypothesizing comfortably in Italian.

Prerequisite: Three years of Honors Italian and teacher recommendation.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Syracuse University course the cost of tuition is approximately \$460.00 for the course. Tuition is subject to change.

### **Honors Spanish V (Syracuse University Project Advance)**

Grade 10-12

This course, entitled Spanish 201 Intermediate Spanish at Syracuse University, is a proficiency-based course that reviews understanding of the formal structures of language, refines previously acquired linguistic skills, and builds awareness of Spanish culture. Authentic oral and literary texts are introduced. By the end of the course, students are expected to communicate effectively: giving and getting information; surviving predictable and complicated situations; narrating and describing in present, past, and future time; supporting opinions and hypothesizing comfortably in Spanish.

Prerequisites: Three years of Honors Spanish or a minimum "90" average or better in Spanish IV, and teacher recommendation.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

Note: This is a Dual Enrollment course and is affiliated with a college/university. Students who enroll in this course are responsible for the tuition as required by each college/university, if applicable. Northern Highlands' teachers have been approved by the respective college/university to teach dual enrollment courses. For this Syracuse University course the cost of tuition is approximately \$460.00 for the course. Tuition is subject to change.

### **AP Spanish Language**

Grade 10-12

Because a high degree of proficiency is expected at this level, listening and speaking skills are continuously analyzed and evaluated. Reading continues with a variety of authentic selections discussed in Spanish; writing skills are expanded to include analytical and creative formats. Students enrolled in this course are preparing for and are expected to take the AP examination in Spanish Language in May.

Prerequisite: Recommendation of Honors Spanish IV teachers.

A summer assignment is required.

Approved for NCAA DI and DII athletic eligibility (please refer to page 2).

## Northern Highlands Regional High School — 4 Year Worksheet

Freshman Year	Credits	Sophomore Year	Credits	Junior Year	Credits	Senior Year	Credits
English 9		American Literature		English		English	
Mathematics		Mathematics		Mathematics		Elective	
Geophysics/Lab		Chemistry/Lab		Biology/Lab		Elective	
World History		US History I		US History II		Elective	
World Language		World Language		Elective		Elective	
Freshman Seminar		Elective		Elective		Elective	
Elective		Elective		Elective		Elective	
Physical Education/Health 9		Physical Education/Driver Education		Physical Education/Health 11		Physical Education/Health 12	

Years Required	NHRHS Graduation Requirements 125 Credits	Minimum Years for College Entrance	Recommended Years for College Entrance
4	English	4	4
3	Social Science (World History, US I, US II)	3	4
3	Mathematics	3	4
3	Science (Geophysics/Lab, Chemistry/Lab, Biology/Lab)	3 Lab	3-4
2	World Language	2	3-4
1	Freshman Seminar	-	-
1	Visual Performing Arts	-	-
1	Career, Consumer, Family, Life Skills	-	-
0.5	Financial Literacy	-	-
4	Physical Education & Health/Driver Education	-	-
-	Electives	-	-