

Northern Highlands Regional High School

Allendale • Upper Saddle River • Ho-Ho-Kus • Saddle River • Fall 2017

www.northernhighlands.org



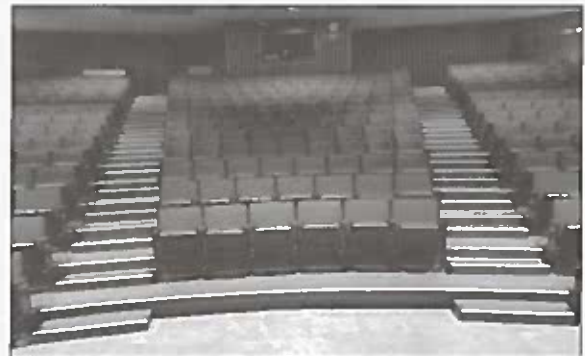
Capital Improvement Projects

As a continued part of the Northern Highlands facilities plan, numerous facility upgrades were completed over the summer of 2017. Included in these upgrades were refurbishing the back gymnasium and auditorium staircases, upgrading the parking lot lighting to LED's, refinishing several student bathrooms, completed several ESIP projects (installed hallway LED lighting, new climate control system) and installed a new sound system in the auditorium, stadium LED lighting, new drainage system for the varsity baseball infield, and a new phone/PA system.

In addition to the completed projects, Northern Highlands will be replacing the turf field this fall, as well as starting our solar panel installation, track resurfacing and window replacement projects later this year.

We are proud to remind our communities that these projects were completed using an ESIP (Energy Savings Improvement Program) and capital reserve funds. Therefore, no referendum was needed to complete any of these projects.

These efforts ensure that our community has the most up to date and modern campus. We are confident that our students and community will enjoy these enhancements for generations to come.



Car Crash Simulation

This past spring Northern Highlands staged a Prom Car Crash Simulation for juniors and seniors in an effort to warn them of the dangers of driving under the influence and distracted driving. This simulation was the latest example of the positive relationship we maintain with all of our community agencies. The program was conducted with the help of fire departments and ambulance corps of Allendale, Upper Saddle River, Ho-Ho-Kus, and Saddle River, Hackensack University Medical Center, the Allendale Police Department, the Allendale Department of Public Works and

Mayor Liz White. Northern Highlands' teachers, Mr. Beatty and Mrs. Rokoszak helped orchestrate the involvement of our student first responders and student actors/actresses, which proved to be a vital component to the lasting impact of this event.

Thanks to the collective efforts of all involved, Northern Highlands was able to present students with a realistic depiction of what can happen when someone chooses to drive under the influence and/or is distracted when driving. We look forward to continuing our work by building upon these community partnerships in our effort to educate the whole child, as well as to promote a safe and secure learning environment for all students in the Northern Highlands school community.



From the Superintendent



Highlanders,

As quickly as we returned to school and enjoyed the final weeks of warmth, we have just as quickly prepared ourselves for the fall and the coinciding weather changes. Although this newsletter does not go out until the fall, I do want to recognize and thank the Northern Highlands 12 month staff who worked so diligently over the summer months to

ensure that our students and teaching staff returned to a beautiful, safe and updated campus ready for the next 10 months of activities. Our summer staff members worked not only to ensure the updating of our infrastructure but also preparing to continue our 1-1 initiative and updating our curriculum. All of these aspects combined are bound to make 2017/2018 the best year at Highlands yet!

During the 2017/2018 school year, the administrative team at Northern Highlands will be working hard to continue our strategic plan which will be in year 2 of the 5 year plan. In addition, we will be working diligently on 3 district and 3 Board of Education goals. As always, our district goals will focus on increasing opportunities for our students and ensuring that we continue to provide them with a world class education. This year's goals will focus on interdisciplinary opportunities, personalized learning opportunities and global citizenship. Should you wish to view our strategic plan, district or Board of Education goals in more depth, they can be found on our website at www.northernhighlands.org.

The 2017/2018 school year also signifies the 2nd year of our 1-1 initiative. As we continue the evolution of our curriculum and program around this area, this year will mark the first year that all teachers will be using the Learning Management System Canvas. This portal will provide students a 24/7 link to class curriculum and work as well as provide a closer connection to their classes and teachers while outside of traditional school hours. Even more exciting is the parent portal which will provide parents with an opportunity to also view Canvas as they will receive access to their child's program and classes.

Moving forward on the facilities end, we are excited to continue our Energy Savings Improvement Project (ESIP). This year's focus will be the addition of solar panels in the fall to help provide the district clean energy and to start the cycle of replacing our building windows with new high efficiency windows in the spring. Both of these projects will not only save the district money by being high efficiency in nature but also will help the district to reduce its carbon footprint.

The 2017/2018 school year is off to a wonderful start thanks to our community, parents, teachers and most importantly our students. I wish all of my Highlanders the best school year yet! I know that each of you will continue to inspire me with your tremendous work ethic and outstanding accomplishments. May each of you fulfill all of your personal goals this year and enjoy this very special time of your lives with your Highlander family, knowing that we will be here for you every step of the way.

Sincerely,

Dr. Scot Beckerman, Superintendent

2017/2018 BOE Student Representatives

Each year 2 students are chosen to represent the student body on the Board of Education (BOE). To be chosen for this prestigious position, students must apply and go through a rigorous screening process.



Bridget Holle

Katherine participates in the School Newspaper, Model UN, Italian Club, Debate Team and Lacrosse.

The BOE welcomes both seniors as student representatives and looks forward to a very productive and enjoyable 2017/2018 school year.

This year we are honored to introduce seniors Bridget Holle and Katherine Federer as the Northern Highlands Student Representatives to the Board of Education.

Bridget also participates on Field Hockey, Lacrosse, DECA, Class Council, School Spirit Club, as well as the American Red Cross.



Katherine Federer

What is the New Jersey State Seal of Biliteracy?

Biliteracy is the ability to listen, speak, read, and write proficiently in two or more languages. Northern Highlands is excited to offer the Seal of Biliteracy, an award recognizing students who have attained proficiency in English and in another language or languages (either studied in school and/or spoken at home) by high school graduation. Northern Highlands joins several other districts in New Jersey and in states around the country who are voluntarily participating in this student recognition program. In a global world, the need for hiring employees with bilingual and multilingual skills has been increasing. The Seal of Biliteracy is a way to provide future employers and universities with a method of identifying and recognizing students with language and biliteracy skills. Eligible juniors and seniors can demonstrate English proficiency by meeting or exceeding expectations on the PARCC ELA assessment and can voluntarily opt to demonstrate proficiency on a foreign language assessment approved by the Department of Education. Students who meet the criteria for the Seal of Biliteracy will receive a certificate with a seal insignia prepared by the NJ Department of Education, as well as an appropriate insignia affixed to their high school transcript.

Additional information about this opportunity will be sent out to parents and students in the upcoming months. If any interested parent or student would like to discuss the Seal of Biliteracy prior to that communication, please feel free to contact your child's individual guidance counselor.



153 Students Named AP Scholars

Congratulations to Present Students (Class of 2018 & 2019) and Alumni (Class of 2017)

The AP Program offers several AP Scholar Awards to recognize high school students who have demonstrated college-level achievement through AP courses and exams. Students enrolled in the 23 AP courses offered at Northern Highlands continue to perform extremely well on AP exams as indicated by the number of students who have been recognized as AP scholars. In all, there are 153 total scholars who averaged a 4.20 on their AP exams.

National AP Scholar – Eight students received National AP Scholar distinction by receiving an average score of at least 4 on all AP Exams taken, and scores of 4 or higher on eight or more of these exams.

Grace Chong	Parker Griep	Nam Lu	Jacob Mendel
Aram Rashduni	Grace Travers	Mary Wang	Jack Wilder

AP Scholar – Sixty-four students at Northern Highlands Regional High School have earned the designation of AP Scholar by the College Board in recognition of their exceptional achievement on the college-level AP Exams by earning scores of 3 or higher on three or more exams.

AP Scholar with Honor – Thirty-three students qualified for the AP Scholar with Honors award by earning an average score of at least 3.25 on all AP Exams taken, and scores of 3 or higher on four or more of these exams.

AP Scholar with Distinction – Fifty-six students qualified for the AP Scholar with Distinction award by earning an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more of these exams.

DECA SUCCESS



What is DECA? DECA is a club that prepares emerging leaders and entrepreneurs for careers in marketing, finance, hospitality and management. DECA enhances the preparation for college and careers by providing co-curricular programs that integrate into classroom instruction, apply learning, connect to business and promote competition.

During the 2016/2017 school year, Northern Highlands' DECA members earned the organization's highest honors at DECA's annual International Career Development Conference in Anaheim, California on April 26-29, 2017.

During the school year, approximately 120,000 of DECA's 210,000 student members take part in the organization's competitive events program to compete for local and regional titles. The competitions are designed to simulate real-life business scenarios and test students' academic understanding and skills development. The top state and provincial winners put their talents to the test during the program's final round of competition in

Anaheim. The DECA International Career Development Conference was the pinnacle of competition where nearly 12,000 students vied for international honors. Over \$500,000 in scholarships and awards were presented to students and teachers for their achievements.

Northern Highlands is proud to announce 2 students received top honors nationally for the first time in school history. Congratulations to:

Evan Casalino for 1st place overall in the area of Business Marketing and 1st place in Role Play

Jacob Mendel for 1st place in Human Resources Management

Model Science Rooms Added to NH

When students enter room 303 in the science building, they are welcomed by bright colors, a choice of seating, and a greater opportunity to collaborate. This newly designed classroom embraces a student centered approach with ergonomic seating and various locations for station learning. The design of the classroom initiated by teacher Michael Menzella and STEM supervisor Tiffany Cohen aligns with ISTE (International Society for Technology Education) standards for learning and is designed to empower student voice and ensure that learning is a student-driven process while fostering the innovative use of technology. Students are enjoying the flexible learning environment as chairs freely move on wheels and give both the teacher and students a different experience daily.



National Merit Commended Students



Congratulations to the following students from the Class of 2018 who earned recognition as Commended Students from the National Merit Program for their achievement on the 2016 PSAT/NMSQT in their junior year:

Evan Casalino, Abby Holden, Grace Huang, Isabella Kalarickal, Sean Kim, Dawn Lu, Jeremy Paton, Hrithika Ravuri, Zhin Pyoung Rhee, Riccardo Santoni, Christine Shea, Kaitlyn Simpson, and Kelly Van Orden.

Standing (L-R): Kaitlyn Simpson, Jeremy Paton, Evan Casalino, Hrithika Ravuri, Riccardo Santoni, Zhin Pyoung Rhee

Sitting (L-R): Abby Holden, Kelly Van Orden, Isabella Kalarickal, Christine Shea, Grace Huang, Dawn Lu

Unavailable: Sean Kim

The two students in the photo are our National Merit Semi-Finalists: (L to R) Catherine Lenihan and Armaan Tobaccowalla.

Northern Highlands is proud to announce that two of our students, Catherine Lenihan and Armaan Tobaccowalla, have been named as National Merit Scholarship Program Semi-Finalists. These students (pictured right) are commended and recognized for their exceptional academic promise based on their performance on the 2016 PSAT/NMSQT taken in the fall of their junior year. To be considered for a National Merit Scholarship, semifinalists must advance to Finalist standing in the competition by meeting high academic standards.



Fed Challenge . . . Real-World Economics

By- Sharif Abbasi- Class of 2018/Fed Challenge Team



Over the past three years I have had the privilege to be a part of a program that has not only helped me find my passion, but has also allowed me to become a part of a tightly-knit family. This program is Fed Challenge. Fed Challenge is a program in which students create a mock FOMC (Federal Open Market Committee) meeting to discuss the current state of the economy, evaluate risks to the forecast, and formulate policy decisions. The results are then presented at a competition at the NY Federal Reserve Bank in March.

It all begins with team meetings after school and on weekends for several hours, where we delve into the most intricate parts of the economy with our advisor, Mrs. Scrivanich. Even though most would rather be sleeping-in or relaxing, Mrs. Scrivanich spends the day discussing the yield curve with eight wide-eyed teenagers. In order to push the learning experience far beyond the classroom, Mrs. Scrivanich plans an "externship-like" experience for the team.

Every year we visit the Federal Reserve Bank of NY for their annual Fed Challenge Seminar ready to learn and engage with experts in the field. Last year, we were even afforded an opportunity to speak with Assistant Vice President of Microeconomic Studies Function, Stefano Eusepi.

We also gain real-world experience from retired Goldman Sachs Managing Director, Kevin Shea, who graciously volunteers his time as Mrs. Scrivanich's co-advisor. Mr. Shea adds to our externship by organizing an annual meeting for the team with Jan Hatzius, winner of the Lawrence R. Klein award and Chief Economist at Goldman Sachs. There we had the unique opportunity to discuss Jan's opinion on policy and current state of the economy, analyzed risks to economic performance here and abroad, and also shared many of our views.

The conceptual knowledge gained in the classroom combined with the practical experience, gave us the edge needed to advance to final rounds of competition year after year. How many other academic competitions offer the chance to discuss such high level ideas with academic elites? With the experience we are getting today, we can be the policy makers of tomorrow.

Math Minded Students: Multivariable Calculus

In September 2013, the Northern Highlands's Mathematics department offered 14 students the opportunity to take Honors Math Analysis in 9th grade. This was the first cohort of high achieving 9th grade math students given the opportunity to work collaboratively with a small group of peers with similar interests and ability in mathematics. Students met rigorous criteria, wrote a letter of intent and completed an assessment to gain entrance into this program. This course covers the curriculum of both Honors Geometry and Honors Algebra 2 in one year.

As sophomores this cohort took Honors PreCalculus, followed by AP Calculus BC (Calculus I and II) during their junior year and Multivariable Calculus during their senior year. During the 2016/2017 school year, we offered Multivariable Calculus for the first time as a dual

enrollment course with Seton Hall University. The students enrolled, earned 4 college credits and completed coursework in Calculus III.

Graduating the first group of students to participate in this 4 year math sequence in June 2017, it was clear that the multivariable sequence provided this cohort with instruction and guidance beyond the traditional coursework over the past 4 years. Students were well prepared to enter many prestigious universities having knowledge through Calculus III and majoring in the STEM and business fields.

Northern Highlands is proud that this initial cohort of math minded students has set the foundation for a new group of students each year to take on this same accelerated sequence.

Honors Model U.N. on Television

The Honors Model United Nations course taught by Mr. Tom Witkowski has engaged in "Global Service Projects" for the past three years. Students form teams and raise money for the charity of their team's choice. The money raised has paid for such causes as filtration straws to prevent parasitic illnesses, eye surgery to restore sight, room, board and tuition for orphans and life-saving surgeries for children. The 2016-2017 student teams raised a total of \$26,607.73 for various charities including "Operation Smile." The money raised by the "Operation Smile" team paid for seventeen facial reconstruction surgeries. This annual project was featured on Classroom Closeup on NJTV Sunday October 22nd throughout the day.



Highlands Helps Those in Need

Each year the students and staff at Northern Highlands make numerous donations to causes around the world. Whether it is a local, national or international cause, Highlanders do a wonderful job of helping those in need. During the 2016/2017 school year alone, Northern Highlands students and staff donated over \$125,000 towards different causes.

Some of the causes chosen by the students of Highlands included:

Oasis Women's Shelter
CJ Foundation for SIDS
American Foundation for Suicide Prevention
Cystic Fibrosis Foundation
Italian Red Cross
Habitat for Humanity
Pony Power
Pet Adoption Through Caring Hands

Music Unites
St. Judes Children's Hospital
Mahwah Center for Food Action
Oasis Summer Camp
Girls Up
Integrated Refugee and Immigrant Services
Relay for Life
World Wildlife Foundation

In addition to the above mentioned foundations, Northern Highlands students also supported numerous individual causes across the globe, with non-financial assistance such as blood drives and hands-on assistance.

Michael Fosberg Visits Northern Highlands



In an effort to help meet our Strategic Plan goal to promote a greater sense of global citizenship among our student body, Northern Highlands hosted a student assembly program on October 24, 2017 starring Mr. Michael Fosberg, playwright and actor, to perform his one-man play, *Incognito*. Mr. Fosberg spent two days at Highlands, performing and conducting workshops for students in acting, American History and American Literature classes. This proved to be an extension of the curriculum unlike any experienced before and engaged students through discussion and activities.

The play *Incognito* is a memoir of Fosberg's self-discovery. *Imagine discovering you are not the person you thought you were. That you have a family, a history, an ethnicity you never knew. How would this discovery impact your life, the lives of those around you; your vision of yourself and society?*

Fosberg conducted a post-show "talk back" after each assembly. These discussions resulted in lively and profound conversation on how we perceive race and identity. He was also available throughout the school day to meet students. While one focus of the play is about race, Fosberg recognizes that the play is powerful to many young people who struggle with identity, family, self-awareness and acceptance. The entire schedule helped to make great strides toward the promoting of global citizenship and a greater sense of individual wellness among students.

Northern Highlands Fall Play ~ 33 Variations

The Northern Highlands Theater Company is pleased to announce its upcoming production of Moisés Kaufman's innovative play entitled *33 Variations*. The play tells two parallel stories, one old and one new - intersecting across centuries.

In 1819, fledgling publisher Anton Diabelli commissioned 50 composers to write a variation on a waltz he had created. Ludwig van Beethoven initially rejected the invitation, then changed his mind and created not one but 33 variations on Diabelli's theme.

In the present day, Dr. Katherine Brandt, a contemporary musicologist struggles to determine the source of Beethoven's fascination with the simple waltz. Deciphering clues left behind in Beethoven's notebooks and letters, Brandt delves into his compositional process and daily life, finding even greater insight into her own obsession with genius.

The dramatic parallel reveals itself in both Beethoven's and Brandt's desperate need for more time - Beethoven is losing his hearing as he attempts to compose the variations; Brandt is succumbing to Lou Gehrig's disease.

Show dates and times are as follows:
Thursday November 16 at 7pm
Friday, November 17 at 7pm
Saturday, November 18 at 7pm

Ticket Prices- Adult: \$14, Student: \$8 and Senior Citizens: free
Tickets are on sale now by going to <http://nhtc.booktix.com/>. For additional information, or to order Senior Citizen tickets, please call Laura Rokoszak at 201-327-8700 X654.



Dr. Katherine Brandt (Emily Hoffert) beginning her therapy for her condition helped by daughter Clara (Olivia Esteban) and nurse Mike (Miguel Pereira)

Here, Beethoven (John Dreyer) explains his musical work to his assistant Schindler (Sofia Katsikiotis)



Northern Highlands and Saddle River Agree on Contract Extension

The Northern Highlands and Saddle River Boards of Education have agreed on a new ten-year Send-Receive contract through which Northern Highlands will continue to accept Saddle River students who choose to attend the High School. This agreement covers academic years 2018-2019 through 2027-2028.

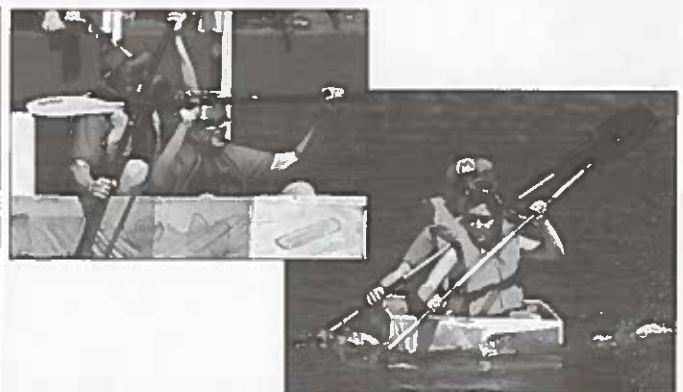
Barbara Garand, President of the Northern Highlands Board of Education, says the Board believes "This new contract reinforces our relationship even more with greater communication and is beneficial to both districts. Saddle River students have been an integral part of Northern Highlands for almost 20 years and we welcome this new agreement that extends our relationship for another ten years."

Looking ahead, Northern Highlands and Saddle River expect the relationship between the two districts to grow stronger and be even more beneficial to both communities.

Cardboard Regatta: And the winners are . . .

In June 2017, Mr. Mugno's engineering classes held their 4th annual cardboard regatta. The students, working in teams of two, designed on CAD (computer aided design), calculated (buoyancy) and constructed a vessel (boat). They utilized Archimedes principle of buoyancy in calculating the free board, primrose line and buoyancy of their boats, while incorporating their weights (cargo) into these equations. Each team member is required to participate by being in and racing their boat to the course outlined on Crestwood Lake in Allendale. The students must come up with a theme; decorate their boat and dress up to that theme. The only materials allowed to create a boat are: corrugated cardboard (no thicker than 1/2") plastic postal tape for seams only and a sheet of 32 square feet of .4mm vapor barrier for the bottom. They are only allowed three cross bracing members to support the walls of their vessel and by coast guard regulations must wear life flotation devices (jackets).

This project is a culmination of three months of work studying nautical/naval engineering where volume of parabolic shapes and rhombus shapes are studied. Mr. Simonetti, Supervisor of the Wellness Department, assisted with physical training on anaerobic and strengthening exercises that would be required for the rowing part of this project. The intent of the regatta is to provide a real world experience for the students. This project allows the students to understand the scope of what it is to be part of a large engineering and educational undertaking while enjoying a positive, fun experience. Congratulations to Christopher Lagana and Matthew Phibbs for winning this year's competition.



Stadium Lighting Completed

The Northern Highlands School District would like to thank the Sports Association and all of those parents and businesses that donated their time and money to completing the new LED lighting system at our athletic facility. After decades of hard work, the new permanent system was installed in September, 2017. It is sure to be used by generations of Highlanders and provide significant opportunities that would have otherwise been unavailable to our students.



Save a Life Tour

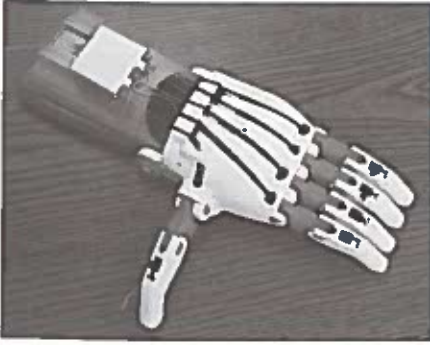


On Friday, October 13, the Northern Highlands Driver Education Department hosted "The Save a Life Tour," which is a safe driving program sponsored by the Valley Hospital.

Sophomores were exposed to the dangers of distracted driving and driving under the influence. The program began with an assembly for all sophomores. The students watched a video that showed examples of the possibilities of driving distracted and driving under the influence. The remainder of the day consisted of Driver Education classes participating in driver simulator experiences. The simulators allowed students to experience the effects of distracted driving and driving under the influence. Students also took pre & post surveys supplied by the company to assess their improved understanding of this real world topic. Students completed the program by signing a pledge not to drive and text. A banner supporting this program and pledge will be displayed in the wellness wing.

STEM Club Lends a Helping Hand

By: Benjamin Masters



The STEM club has recently started to participate in the e-NABLE Project, an organization committed to helping those who have a deformity in their arm or hand, whether it be by birth, war, disaster or disease, by giving them a 3-D printed prosthetic at no cost. The organization consists of people around the world who print and assemble prosthetics for those in need. Our goal has been to support the e-NABLE ideology by producing prosthetics of the upper extremity for people of all age groups and conditions.

The prosthetics are designed to close their fingers when the elbow or wrist is bent. This simple method allows for the prosthetic to be functional and reliable yet a fraction of the cost compared to myoelectric alternatives. Our prosthetic hands utilize string and elastic cords to act as tendons in the hand. This enables the hand to close and return open when a neighboring joint, such as the wrist or elbow, is bent. We build the prosthetics with the Applied Technology Department's three Makerbot Replicator 3D printers. In just over 18 hours, we can print a fully functional prosthetic hand using only a few dollars' worth of PLA plastic filament.

This year, we expanded our prototyping lab with a Stratasys Mojo 3D printer. The STEM club is eager to use this new technology to print prosthetic hands with a stronger material at a higher level of precision. This unique opportunity has been a meaningful way for the club to give back to our community while using the skills we have learned through the Applied Technology courses at Highlands. We have truly been able to lend a helping hand.



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