Summer Educational Experience at Kent 2016

Celebrating Five Years of Lateral Thinking
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In Brief  A Walk through SEEK 2016

In the summer of 2016, Kent School successfully held its fifth annual Summer Educational Experience at Kent (SEEK) under the supervision of Dr. Ben Nadire, director of the Wentz Pre-Engineering Program.

Kent School uniquely prepares students interested in Science, Technology, Engineering, and Mathematics (STEM) fields by supplementing a liberal arts education with the Wentz Pre-Engineering and SEEK programs.

Exposure to engineering, aviation, entrepreneurship, robotics, and manufacturing through Kent's programs sparks interest and motivates students to creatively take on challenges facing our increasingly globalized society.

In only five years, Kent has increased the variety and tripled the number of SEEK programs offered. SEEK has instructed over 250 students.

SEEK is held in collaboration with U. Penn's Wharton School of Business, Harvard University, Georgia Tech's Integrated Product Lifestyle Engineering (ILPE) Laboratory, Team Business USA, Flight Safety International, and Performance Flight School. SEEK is also made possible with the support of Kent alumni. Five alumni assisted students in this year's SEEK sessions: Gar Flickinger '91, Ryan Glenn '12, Josh Hughes '12, Shermin Luo '12, and Matt Heslop '04.

The July session intiated a collaboration with the University of Connecticut's School of Engineering.
SEEK By the Numbers

Seven flight hours logged in a Cirrus 224

One Wishbone Scholar

Nine Student Presentations

Nine Field Trips

Three Interns

Sixteen subject areas:
Renewable Energy
Manufacturing
Ariel Robot Competition
Ground Vehicle Competition
Biotechnology
Entrepreneurship
Solar Car Racing
Grand Challenges
Engineering
Aviation: Science and Technology
3D Printing
Computer Aided Design
VEX Robotics
Arduinos
CNC Milling
Public Speaking and Presentation Skills

Five students, one teacher from Norfolk Academy

One new program

67 Participants

Two Starbuck Scholars

Five Kent Alums:
Gar Flickenger '91
Matt Heslop '04
Ryan Glenn '12
Joshua Hughes '12
Shermin Luo '12

Four Participating Universities:
Harvard University
The Wharton School
Georgia Tech
University of Connecticut

17 Secondary Schools:
Kent School
Thomaston High
East Ridge Middle School
Brooks School
Stamford Academy
Greenwich Academy
Central Catholic HS
Beijing Yuying School
Int. Community School
The Fenn School
Rumsey Hall School
Norfolk Academy
Gateway
Avon Old Farms
Cardigan Mountain School
Bergen County Academies
Kent Center School
Joshua Hughes ’12

Josh Hughes ’12 studies biomedical engineering at Columbia University. At Kent, Josh captained the FIRST robotics team and was awarded the Wentz Pre-Engineering prize. As an undergraduate researcher in the Hess Laboratory of Synthetic Nanobiology at Columbia, he designed a magnetic tweezer apparatus that allows researchers to manipulate biological samples in three dimensional space. Josh also captained Columbia’s team in the Biomolecular Design Competition (BIOMOD), winning gold in 2014. They won the Molecular Robotics Research Group award for innovation in molecular robotics at the Cambridge Jamboree.

As a co-founder and CTO of the fantasy sports platform Draftpot, Josh helped raise $2.2M in seed funding and led a team of software developers to build a web app that has processed nearly $6M in revenues since their platform launched in September 2015. Josh currently interns at Junco Labs, a company that aims to commercialize next-generation medical diagnostic devices.

Shermin Luo ’12

Shermin Luo ’12 studied at Columbia University, where she earned her B.S. in Operations Research & Engineering Management Systems. She is the CEO and co-founder of Ipromoter Image Inc., founder and co-president of Global Youth Mentorship Initiative, and Director of Asia Marketing. Shermin is also a Fashion Assistant at Zimba Collection and Editor in Chief of Charm China Magazine.

Shermin Luo ’12 addresses SEEK Entrepreneurship, Pre-Engineering, and Aviation

Josh and Shermin presented the introductory Keynote addresses outlining principles to lead students through a “tentative guide to changing the world.” Both speakers used examples from their startup experiences to show students where a Kent education can lead them.

The first and most heavily emphasized principle was to find what matters most to the students. Josh highlighted that students can find passion in unexpected area – he discovered his passion at Kent in the pre-engineering program working with Vex robotics.

Shermin and Josh then stressed the requirement to develop a “toolbox of skills.” The students will need both technical and nontechnical skills to develop their product and effectively market their idea to potential investors and clients. Shermin cited examples taking advantage of alumni networks from Kent and Columbia for advice and mentorship.

The pair concluded by urging the students to apply their passions and skillsets to an important problem in their local or international communities. Drawing from his biomedical engineering background, Josh presented his newest venture to create a quick and portable medical diagnostic card. Shermin referenced her work connecting students in underprivileged rural Chinese communities to mentorship and educational resources.
The inaugural session of SEEK Aviation, led by Gar Flickinger ’91, introduced students to the basics of flight and different types of aircraft. Dr. Nate Sirirojvisuth, another instructor, first presented the physics behind flight and aircraft responses to performance, weight, and balance issues. These lecture sessions were entirely student driven with students asking questions about specific flight scenarios.

Students experimented with laser cut Styrofoam gliders. They deftly maneuvered the delicate gliders down the halls of the Pre-Engineering Center with large foam boards. The SEEK students then applied physics and aerodynamic theory to building balsa wood gliders.

The SEEK students visited the Westchester County Airport, where they learned the importance of interpreting weather patterns and weather data from Nick Gregory, the Performance Flight Chief Pilot and Chief Meteorologist at WNYW Fox 5 in New York. At the airport, they studied how pilots react to different weather patterns as well as weather conditions unsafe for flight.

The students also visited the New England Air Museum, seeing a variety aircraft from military planes to specialty prop planes.
Gar Flickinger ’91 led a session introducing flight simulators. Students had the chance to practice on these flight simulators before they flew Cirrus planes at the end of the week. He also shared with the students personal accounts of flying in different conditions.

Students applied their new aviation skills on Friday with Experience Flight. They ran through the preflight checklist with a trained pilot, took inventory of the interior, and took off. After about an hour in the skies above Westchester County and Connecticut, performed controlled landings. Students spent the final afternoon of the program using the Falcon Simulator at the Flight Safety International Teterboro Learning Center.
The SEEK Entrepreneurship session, led by Professor Keith Weigelt of the Wharton School, developed students’ entrepreneurial, financial, and communication skills with sessions exploring competitive environments, sales, marketing, budgeting, accounting, operations, and human resources management.

Team Business kicked off SEEK Entrepreneurship with the “How to Start a Business” seminar. André van der Bergh led students through a business simulation tracking costs, revenue, supplies, profits, and product output for their paper box making companies. Each time the students became comfortable with their companies and means of production, Mr. van der Burgh added a twist. He introduced new technology, driving companies to discover and implement more cost-effective and efficient methods of production. Through experiential learning, the workshop facilitated students’ discovery of a wealth of economic and business concepts.

With Wiegelt’s guidance, SEEK Entrepreneurship created two independent business ventures. These groups were instructed to identify a problem in the Kent community, research a solution, and address this problem with an initiative or invention. These small groups researched, analyzed, and presented aspects of the startups, including projected costs, revenue, operations, and marketing. Over the week, students studied Tesla’s startup model and took advice from startup entrepreneurs and Keynote speakers, Josh Hughes and Shermin Luo.
One group developed a phone application to better integrate Kent School with the town of Kent. The students evaluated ways to improve the connection between students, parents, alumni, and the Kent community. Their in-app solution offered maps, forums, and information on both the school and the town.

Another group proposed to organize a community farm and farmers’ market that will satisfy demand for more fresh produce and specialty goods in both the school and town. The students planned to start with students, faculty, and parents participating in the market, intending to grow and open to the larger Kent community.

At the end of the week, the students presented their companies to an audience of their peers, instructors, and parents. Following the presentation and awards ceremony, the audience moved to the second level of the Pre-Engineering Center for SEEK Pre-Engineering’s VEX Robotics final tournament.
Team Business kicked off SEEK Pre-Engineering with the seminar “How to Start a Business.” André van der Burgh led students through a business simulation tracking costs, revenue, supplies, profits, and product output for their paper box making companies. Each time the students became comfortable with their companies and means of production, Mr. van der Burgh added a twist. He introduced new technology, driving companies to discover and implement more cost-effective and efficient methods of production. Through experiential learning, the workshop facilitated students’ discovery of a wealth of economic and business concepts.

The Renewable Energy session, led by Julie Zurolo and Ryan Glenn ’12, focused on solar cells and circuitry. The students began by creating small solar cells using berry juices. They tested the voltage and current generated by their solar cells with digital multimeters and compared efficiency and results from the different juices. The students then built circuits using the Arduino microprocessors to turn an LED on and off. They quickly progressed to developing circuits that incorporated both solar cells and motors to power a solar car. They also used a program to find the ideal motor and gear combinations for the car. By the end of the week, SEEK created its first functional solar powered car.
In the SolidWorks designing session, directed by Ryan Harris, the students learned how to create digital 3D models. The students used two 3D printing software platforms to convert the design file from STL to GCode. After completing their designs, they used New Matter MOD-t and the fifth generation MakerBot 3D printers to load and print their solids in the Digital Fabrication Lab which contains twelve 3D printers. The students’ designs included a detailed donut, a mini golf flag, and components to build a Rubik’s Cube.

The Computer Numerical Control (CNC) machining and milling session, led by Matt Heslop ’04, introduced the students to designing objects using coordinates, safely preparing and operating the milling machine, and programming the machines to create milled objects. The students produced wax team shields and crests for the groups in the robotics competition.

In the Robotics sessions, the student Alliances built and modified robots to compete in the VEX “StarStruck” tournament, the official VEX tournament for 2016-2017. After becoming familiar with the basic design, most groups tested their robots with innovations tailored to the new challenges of “StarStruck.” In the competition, the robots moved foam stars and large pillows past a fence dividing the teams to score points than the opposing alliance.

SEEK Pre-Engineering concluded with group presentations on the week’s sessions and a final VEX tournament and a Championship match.
In SEEK Grand Challenges, students explored interdisciplinary science for energy sustainability, biotechnology, and history and ethics of bioengineering to creatively address the challenges for global development.

To start the week, Dr. Sujata Bhatia introduced topics, challenges, and a historical perspective on interdisciplinary engineering. Throughout the week, Dr. Bhatia discussed the Global Burden of Diseases, Biotechnology, Bioengineering concepts with the students. She also moderated group discussions and advised students on their final Grand Challenge Projects.

A field trip to the Connecticut Antique Machinery and Mining Museum in Kent enhanced the students’ historical perspective. The director of the museum showed the students steam engines, antique heavy equipment, and the role of engineering in industrial and modern history. The students also visited the Hospital ER in Sharon, CT, where Pam George RN toured the students, showing the latest integrated technology and innovation in healthcare.

Mr. Jeremy Sokolnicki directed the biotechnology labs, where the SEEK students learned techniques, costs, and benefits of bioengineering. The students then experimented with Genetically Modified Organism (GMO) and pathogen detection. In the first lab, students tested strawberries, granola, potatoes, tofu, and corn meal for genetic modification using Polymerase Chain Reaction (PCR) and Gel Electrophoresis. In the second lab, they determined whether biological test samples contained a pathogen, evidenced by the presence of primary and secondary antibodies in an Enzyme Linked Immunosorbent Assay (ELISA) experiment.

To balance the technical focus of SEEK GC, Dr. Bouldin of the music department held a session and demonstration on Music, the Arts, and Engineering. He stressed the importance of creativity and the arts, pushing the students to expand their applications and applications of their technical abilities. To illustrate his point, Dr. Bouldin showed the students different genres of music, from Bach to Hank Williams to John Cage’s “4’33.” He presented the pBone – a plastic trombone – as an innovation: new materials combined with traditional methods so that a higher quality instrument reaches a wider audience at less expense.
To show the interplay between music and engineering, Dr. Bouldin introduced the students to cutting-edge musical software that allows artists to manipulate their sound and incorporate a wider range of elements. The students then used the software to create a new song using vocal and instrumental samples in a few short minutes, drawing on both technical and creative abilities.

The students watched the film “Gattica”, which presents a dystopian future where person's life, abilities, and careers depend on their genetically modified (or unmodified) DNA. The film focuses on an unaltered individual’s struggle to “overcome” his genes and the relationship with his genetically “perfect” peers. Following the film, the students discussed the morality, potential legality, and consequences of extreme genetic modification in humans and implications of such modification.

Mr. Mark North discussed the technical aspects of Kent School’s renewable energy and sustainability programs, highlighting the geothermal heating system in Hoerle Hall and the solar panels on the roofs of the Nadal hockey rink, gym, and tennis house. The students saw the piping and heating systems firsthand and accessed the real-time energy data available for the systems online.

Mr. Mike Benjamin later reflected on Kent’s energy systems and discussed physical methods of harnessing renewable and sustainable energy, focusing on the capabilities and shortcomings of each method. The students then split into groups to design and present more options to expand the renewable energy program and reduce Kent’s carbon output. Their presentations and subsequent discussion led to a greater understanding of energy systems, capabilities, and even nuclear physics.

For the final Grand Challenges Project, Dr. Bhatia shifted the students’ focus to find a new Grand Challenge and propose solutions. The program concluded with impressive presentations by the students, which covered alternate energy sources in space, sonic fire suppression systems, sanitation and modular healthcare for developing areas, psychological health and cyber bullying, and organ construction incorporating 3D printing techniques.
In the two week program, SEEK Manufacturing students focused on a team based “Co-create, Design, Build, and Operate” (CDBO) manufacturing cycle, developed by Dr. Daniel Schrage, director of Georgia Tech’s Product Lifestyle Engineering (IPLE) Laboratory. Colin Gury and Jared Churchwell, Georgia Tech students, led SEEK Manufacturing. Small teams faced four competitive challenges: VEX Robotics “Starstruck” matches, LEGO Mindstorms design and terrain challenge, a wind turbine car, and drone construction. The challenges required continual redesign, modification, and testing to succeed. Over the two weeks, students learned the fundamentals of aerodynamics and mechanics, which allowed them to modify basic car or robot models to more complex and original vehicles.

During the first week, the students began the VEX robotics challenge by modifying existing robots from SEEK Pre-Engineering. A practice “Starstruck” tournament revealed the strengths and weaknesses of each robot, leading to modifications to improve the designs. “Starstruck,” the official VEX challenge for 2016-2017, forced students to come up with innovative methods to throw large foam stars over a fence. The SEEK Manufacturing students learned from the achievements and mistakes of their SEEK Pre-Engineering counterparts to improve the efficiency of their robots. They also programmed the robots for the autonomous section of the VEX competition.

The LEGO Mindstorms terrain challenge required robots to autonomously drive over three types of terrain (foam, beads, and blocks), drop off a 3D printed object, and pick up and return rings to the starting area. The students designed wheels with Computer Aided Three-dimensional Interactive Application (CATIA) and 3D printed them using MOD-t printers.

In the second week, SEEK Manufacturing began working on the wind turbine car and drones. The wind turbine challenge required students to build a car powered by a wind turbine. The students focused...
on aerodynamics and propulsion systems to successfully maneuver the car into, against, and across the wind current.

Drone construction applied lessons in aerodynamics, mechanics, and design to successfully create and operate drones. Students used components from Intel’s FLY SOMETHING, brush motors, and rotors to make four rotor drones, or quadrocopters. Students practiced flying their drones during the second week and challenged each other to control their drones through a planned obstacle course and landing.

At the end of the two weeks, the SEEK Manufacturing students proudly presented their final projects to family and peers.
Midway through the week, the students of SEEK Pre-Engineering and SEEK Entrepreneurship visited the PEZ Candy Inc in Orange, CT. Students had the opportunity to see the production process and history of their favorite candy dispensers.

SEEK Manufacturing visited Lime Rock Park on a race. The students relaxed on a gorgeous Saturday afternoon overlooking the racetrack as experienced drivers flew by in their Mazdas, Porsches, and BMWs.

Throughout the three weeks of SEEK, students had time to relax, explore the Kent community, and play soccer, volleyball, billiards, Go, and chess.
Keith Weigelt is the Marks-Darivoff Family Professor of Strategy at The Wharton School, and a Professor of Education at The Graduate School of Education, University of Pennsylvania. He is the course head of Management 653 – Field Application Project (FAP). Over 300 MBAs take over the applied strategy class each year. Keith is a game theorist and his teaching focuses on the theory’s relevance to the business world. He is the recipient of Wharton School Excellence in Teaching Awards for both his negotiation and strategy classes.

Keith has extensive experience in the social impact field. He has worked extensively with microfinance institutions both in the United States and abroad. He teaches classes on both microfinance and the management of disaster relief.

Keith has assumed the role of an activist professor. He is the founder and director of Building Bridges to Wealth (BBTW). BBTW is an innovative Wharton-based program that teaches business literacy to grammar and high school students and to adults. The goal of the program is to increase the wealth of families living in inner city neighborhoods. Over 900 adults have taken the adult business literacy program. Classes are free and and held either in the evening or on weekends. BBTW's program is unique because it offers participants the opportunity to form communities of wealth after graduation. The communities are composed of peer-to-peer savings groups, mutual fund investing groups, and a microloan fund. Over 400 participants have contributed roughly $60,000 to investing groups as of April, 2014. The current savings group has over sixty members and will generate a lending pool of over $30,000. Professor Weigelt has published numerous articles in management and economics journals. He is the co-author of Managerial Economics (seventh edition) a book that is the category leader in the global education market. His articles have also appeared in several books and the popular press. SEEK Entrepreneurship

Stacy L. Franks has been the Associate Director of The Field Application Project (FAP) & Wharton Field Challenge (WFC) since 2000. MGMT 653/353 is a program designed to integrate classroom learning of Wharton MBA & Ugrad students.

In teams of students, they apply what they have learned to the problems of organizations to develop meaningful managerial action plans. FAP develops students’ expertise at addressing and framing unstructured problems, for which a single set of techniques or conceptual lenses will not suffice.

As Associate Director, she is in charge of logistics with the host organizations, students as well as faculty. She also started a program with other Centers across campus that recruits and lists projects under heading like Social Impact, Retailing, Sports Business, Design & Architecture. Stacy is also responsible for the Financial Literacy program for high school & elementary school children as well as a digital literacy program. She also runs the Building Bridges program for adult education. Stacy has worked at the University since 1997. She holds a BA in Psychology & Biology. Currently pursuing Master's at the University of Pennsylvania in Organizational Dynamics. SEEK Entrepreneurship
Dr. Ben Nadire holds the Judith B. and Howard B. Wentz, Jr. Teaching Chair in Interdisciplinary Studies. He received a Fulbright Scholarship and earned a Ph.D. in Optimal Control Theory from Northeastern University and a Doctorate in Applied and Pure Mathematics from the University of Montpellier, France. He served as the Chair of the Kent Mathematics Department for one year. He is the founder and coordinator of the SEEK (Summer Educational Experience at Kent) program and the founding director of Kent’s Pre-Engineering Program. Prior to coming to Kent School in 1997, he held teaching positions overseas and at Northeastern University and Bunker Hill Community College. Dr. Nadire runs the VEX Robotics program, taught the Structures course, and teaches Mathematics at Kent. He was nominated for a Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) in 2003 and the Presidential Microsoft Innovative Teaching with Technology Award in 2005.

Matt Heslop ’04 is a member of the Kent School Mathematics Department. He earned his Bachelor’s and Master’s degrees in Manufacturing at Worcester Polytechnic Institute. He received a Wentz Fellowship in 2011-2012. While at WPI, Matt received the Outstanding Student Award (2007) from the Society of Manufacturing Engineers. At Kent, he teaches Manufacturing courses and is a member of the Pre-Engineering committee at Kent. In 2014, he was awarded the Wagenknecht Buttitta travel scholarship to investigate the effects of the World Cup on Brazil’s society. SEEK Pre-Engineering

Ryan Harris earned his BS in Mechanical Engineering from Union college in 2013 and his MS in Materials Science and Engineering from Cornell University in 2015. He researched bone callus healing using a murine model at Union. He used scanning electron microscopy to investigate a new thin film and an atomic force microscopy to quantify the surface features of a sensor used for a "lab on a slide" application for his senior project. Harris worked at the Union machine shop as a student technician for Atotech USA in Albany on silicon copper plating technology as a materials science intern. In graduate school, he used Multi-Photon microscopy and wrote code to quantify the organization of collagen in human cervical biopsies. Harris also volunteered at the Ithaca Science Center, developing the Mars rover exhibit. SEEK Pre-Engineering

Mrs. Courtney Duncan holds the class of 2000 teaching chair at Kent School. Mrs. Duncan joined the Kent School faculty in 2007. She graduated from Phillips Andover Academy in 2003 and earned her Bachelors of Arts Degree from Wesleyan University in 2007 with a double major in Neuroscience/Behavior and Biology. Courtney was a tri-varsity athlete at Andover and became a standout athlete in two sports at Wesleyan. She served as captain of the Wesleyan field hockey team in 2006 and earned a variety of honors, including First Team All NESCAC and Third Team All American. She was also Second Team All-NESCAS in lacrosse at Wesleyan. At Kent School, Courtney teaches Honors Chemistry and AP Psychology. Additionally, she is the associate director of admissions. She is the dorm head of Hoerle Hall South, skillfully supervising both the girls and the boys. Courtney is the head coach of varsity field hockey and girls varsity lacrosse. She is also an avid equestrian and enjoys eventing with her horse. SEEK Pre-Engineering

Ryan Harris earned his BS in Mechanical Engineering from Union college in 2013 and his MS in Materials Science and Engineering from Cornell University in 2015. He researched bone callus healing using a murine model at Union. He used scanning electron microscopy to investigate a new thin film and an atomic force microscopy to quantify the surface features of a sensor used for a "lab on a slide" application for his senior project. Harris worked at the Union machine shop as a student technician for Atotech USA in Albany on silicon copper plating technology as a materials science intern. In graduate school, he used Multi-Photon microscopy and wrote code to quantify the organization of collagen in human cervical biopsies. Harris also volunteered at the Ithaca Science Center, developing the Mars rover exhibit. SEEK Pre-Engineering

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Sujata K. Bhatia, MD, PhD, PE is a physician, bioengineer, and professionally licensed chemical engineer who serves on the teaching faculty of biomedical engineering and executive education at Harvard University. She is the Assistant Director for Undergraduate Studies in Biomedical Engineering at Harvard, the academic advisor for all Harvard undergraduate students in bioengineering and biomedical engineering, and a Lecturer on Biomedical Engineering. In addition, she is an Associate of the Harvard Kennedy School of Government for the Science, Technology, and Globalization Project. She works with students on projects for medical innovation in Africa, as well as global engineering education. She is a faculty member in the Harvard Kennedy School Executive ducation program on Innovation for Economic Development. Sujata has personally mentored several Harvard undergraduates to complete innovative research and design projects that advance the field of bioengineering. She has served as an Assistant Dean for the Harvard Summer School for summer sessions from 2012-2014.

Sujata graduated from the University of Delaware in 1999 with Bachelor’s degrees in Biology, Biochemistry and Chemical Engineering and a Master’s degree in Chemical Engineering; she earned all four degrees in only four years. Sujata then trained in the MD/PhD combined degree program at the University of Pennsylvania School of Medicine and graduated in 2003, completing both degrees in four years.

In 2012, she was selected as a Resident Fellow in the Harvard Administrative Fellowship Program, a program that prepares administrators for leadership positions in the university. In 2013, Sujata represented the United States at the Global Grand Challenges Summit, a joint initiative of the U.S. National Academy of Engineering, the U.K. Royal Academy of Engineering, and the Chinese Academy of Engineering. In 2013, she was selected by the U.S. National Academy of Engineering for Frontiers of Engineering Education, a recognition for the most innovative engineering educators in the nation. In 2014, she was chosen by the American Society for Engineering Education for the “20 Under 40” list. Students voted her as a Harvard Yearbook Favorite Professor for two years in a row.

Jeremy Sokolnicki is a graduate of Choate Rosemary Hall and of Hamilton College. Before joining the Kent School faculty, Jeremy was a Senior Research Associate at Weill Medical College. He has been teaching at Kent School since 2003. Jeremy teaches Honors Biology, Genetics, and Biotechnology and also coaches cross country and golf. He served as a dorm resident and as Assistant Dean for four years, shepherding the Class of 2011 through their Kent experience. Jeremy lives on the Kent School campus with his wife, Megan, who works in the Kent Admissions Office, and their two children.

Pape Seye graduated from Taft and earned his degrees in Economics and Sociology from Cornell University. He started working at Kent School in 2010 as the Class of 2013 form dean. He recently earned his masters in International Economics and Development from Columbia University. He is currently the Class of 2017 form dean and teaches economics. Mr. Seye also coaches soccer and is frequently seen greeting students around campus enthusiastically greeting and encouraging students and faculty alike with a big smile.
Gar Flickinger ‘91 was born and raised in North Carolina. He developed an affinity for aviation at an early age after learning about the Wright brothers. In his youth, he attended air shows at the Seymour Johnson Air Force Base in Goldsboro, NC, Cherry Point Marine Corp Air Station in Havelock, NC, and Norfolk Naval Base in Norfolk, VA. He attended Space Camp at Wernher Von Braun Space Center in Huntsville, AL.

Gar studied Biology and Education at Hobart College, graduating in 1995. Since his eyesight kept him from qualifying for military flight programs, Gar enrolled at Emery Aviation College in Colorado Springs, CO. He then earned his instrument, commercial, and flight instructor licenses.

After graduating from Emery Aviation, Gar worked as a flight instructor and traffic watch pilot for Professional Flight Training at Sikorsky Memorial Airport in Stratford, CT. He later took a job with Island Air Service, flying the bush of south central Alaska. His first professionally few jets with Flight Options, a fractional jet ownership program based out of Cleveland, OH. Gar began working for UPS in 2006, and has flown both the Boeing 727 and the McDonnell Douglas MD-11 for the company.

When not out traveling the globe for UPS, Gar spends his time with his seven children (and one grandchild) in the Mt. Washington Valley of NH and Anchorage and Kodiak, AK. In their free time, they hike, ski, snowboard, kayak, fish, hunt, and enjoy family time together. SEEK Aviation

André van der Bergh was intimately involved in the retail industry in South Africa and the Middle East for more than 25 years, specializing in process re-engineering and automation. In 1998, André began working for Team Business as a facilitator programs for his retail clients with tremendous results. For example, one of his clients took 6,000 staff through the program as a part of a successful turn-around initiative. André is certified to facilitate all the programs in the Team Business portfolio and is the primary facilitator in the United States. SEEK Entrepreneurship

Dr. Tom Bouldin has earned a degree in Electronics Technology from Alabama Technical College and his BA, MA, and Doctorate in Music from Auburn University. He has taught Kent music classes, directed the Kent bands, and managed music technology systems since 2011. Dr. Bouldin plays several instruments and has taught music for over 25 years. SEEK Grand Challenges.
Jessica Jocson is a rising senior at Columbia University studying chemical engineering with a minor in environmental engineering. She is involved with several of engineering groups on her campus, including the American Institute of Chemical Engineers and the Society of Women Engineers. Additionally, she is a coxswain on Columbia’s Lightweight Rowing team. Jessica graduated from the California Academy of Mathematics & Science, where she has had several years of experience with VEX Robotics as a participant, mentor to younger teams, and a co-directors of the program. SEEK Intern

Samantha Benevelli is a rising junior at Hamilton College pursuing a Bachelor of Arts in physics and economics. At Hamilton, she is on the varsity women’s rowing team, a lead organizer of TEDxHamiltonCollege, and a campus tour guide. She is traveling to London in the fall of 2016 to study Classical Mechanics and economic policy making at King’s College. SEEK Intern

Mrs. Julie L. Zurolo holds the William G. Carey III ’52 Teaching Chair at Kent School. Mrs. Zurolo graduated in 1990 from Peddie School before moving on to Brown University, where she earned a B.A. in Psychology. She was a member of the Peddie girls varsity swimming team which won the High-School National Championships from 1987-1990. Mrs. Zurolo also swam at Brown University, earning Academic All American honors. Upon completing her studies at Brown University, Mrs. Zurolo returned to Peddie School to teach Ecology, Psychology and Chemistry. Mrs. Zurolo then joined Kent School’s faculty in 2005. She teaches Chemistry and Honors Chemistry while serving as the science department’s Chemical and Safety Coordinator. SEEK Pre-Engineering

Jared Churchwell is pursuing a B.S. in Aerospace Engineering from Georgia Institute of Technology. His primary areas of interest are rotorcraft, system dynamics and controls, aerodynamics, and programming. Jared is currently researching rotorcraft safety from an epidemiological perspective. He enjoys hiking and kayaking as leisurely activities. SEEK Manufacturing

Colin Gurry is an undergraduate research engineer in the Integrated Product Lifecycle Engineering Lab at Georgia Tech. He will graduate in December with a B.S. in Aerospace Engineering. Colin is an ROTC cadet and, upon graduating, will commission as a 2nd Lieutenant in the U.S. Army. He also played two years of varsity basketball as a Freshman/Sophomore at Georgia Tech. SEEK Manufacturing

Ryan Glenn ’12 earned his Bachelors of Arts Degree in Physics with a minor in Mathematics at Hamilton College in 2016. Born and raised in McAllen, Texas, he attended Kent School from 2009 to 2012, where he played soccer, hockey, lacrosse, and drums. In his senior year, he served as the Sacristan on the Senior Council and won the Kelly Newton Award. In college, he captained the Hamilton Club Hockey team and played drums in the Hamilton Jazz Ensemble. Ryan will teach Physics at Phillips Academy Andover for the ’16-’17 year as a Teaching Fellow. SEEK Intern
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