

# Senior Projects and Capstones

## Seniors Get a Taste of the “Real World” Before Graduation

For decades during the month of May, MFS seniors have engaged in off-campus pre-professional or service projects, more commonly known as Senior Projects. These projects provide opportunities to explore interests in a wide range of industries that may lead to a career. Students gain hands-on experience and self-knowledge, which serve as an introduction to the professional world. The students receive on-site visits from faculty members and present concluding reports to the entire senior class.

In 2008-09, 13 students became the first to complete the two-year MFS Honors Program. As part of the program, the students must complete a Senior Capstone/Demonstration Project. This is an opportunity to display deep engagement with a topic of choice, with projects requiring about 40 hours to complete. Program participants may work on this requirement at any time during the year, including during May in lieu of their senior project. An oral defense of 30-60 minutes takes place before a panel that includes one member of the Honors Program Committee, the demonstration advisor and at least one other MFS teacher, administrator or outside authority chosen by the student.

Students not enrolled in the honors program also have the option of Independent Capstone Projects for credit under the supervision and guidance of a faculty member.

On the following pages is a sampling of projects from the Class of 2009. Enjoy!

### 2009 Senior Projects

A Coffee House  
Advanced Pain Consultants  
Alliance Corporation  
Angel Ball Foundation  
Animal Awareness Association  
Bancroft Neurohealth  
Burlington County Habitat for Humanity  
Cadbury Care at Home  
Camden Riversharks/Campbell's Field  
Carl Alan Floral Designs, Ltd.  
Congressman John Adler  
Cosmopolitan Magazine  
Dr. Michael Dimarcangelo Family Practice  
Edmund Scientific  
Elite Catering  
Equality Forum Philadelphia  
ETSec  
FAA – Philadelphia Air Traffic Control Facility  
Flashpoint Theatre Company  
Flying W Airport and Resort  
Garden State Animal Hospital  
H.C. Sharp Elementary School  
Hamilton Endoscopy and Surgery Center  
Honors Capstone Projects  
Kensington Welfare Rights Union  
Little Mill Country Club  
Lockheed Martin  
Merrill Lynch  
MFS Thrift Shop  
Moriuchi Farm Market

### 2009 Senior Projects continued

Multiple Sclerosis Association of America  
NASDAQ OMX Group  
National Constitution Center  
New York Mercantile Exchange, Inc.  
Nicole Miller  
Orchard Friends School  
Orthopedic & Sports Physical Therapy  
Pie Lady Café  
Pine Hill Golf Club  
Planned Parenthood of Southern New Jersey  
Pop Warner Little Scholars, Inc.  
Positive Psychology Center  
Pure Hair Stylist, Medford  
Saldutti, LLC  
Samaritan Hospice  
Service One Associates, Inc.  
Silver Image Photography  
SJ Magazine  
Smarter Agent, Inc.  
Tabernacle United Church  
The Wilma Theater  
Theatre Alliance of Greater Philadelphia  
Thomas Jefferson University Hospital  
Surgical Center  
Trainer Diva, Inc.  
Virtua Memorial Hospital  
Voith & Mactavish Architects, LLP  
Voorhees Pediatric Facility  
Woodford Cedar Run Wildlife Refuge  
WorkNet Occupational Medicine  
WXPN 88.5 FM  
YMCA of Burlington County



## Rebecca Salowe – SCIENCE PODCASTING

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For her honors capstone project, Rebecca Salowe was the creator and producer of the podcast “Science Among Friends.” She researched how to podcast, listened to professional podcasts and studied popular and scholarly science writing. During her junior year students in Salowe’s Chemistry III class began to write podcasts while she coached them with recording and writing. She wrote narratives summarizing each podcast and recorded introductions and

conclusions. In spring 2008, the first “Science Among Friends” appeared on iTunes. During her senior year, Rebecca’s Bionutrition class continued to build the podcast library tipping the total number of podcasts over 100!

Also during her senior year, Rebecca maintained a blog entitled “From the Producer’s Desk,” detailing her work on the project. Her vision of the project changed over two years. “My main hope was to raise interest in learning outside the classroom,” said Salowe, now enrolled at the University of Pennsylvania.



## Hayden Moskowitz – RADIO/AUDIO PRODUCTION

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Hayden Moskowitz, for his senior project, worked for the “Kids Corner” radio program at WXPN. His main responsibility was extracting portions of archived episodes of “Kids Corner” to create on-demand audio for the show’s website. He also performed audio editing of interviews conducted by “Kids Corner” producer Robert Drake to air on the radio for promotional use. Moskowitz plans to major in music technology at New York University and hopes to perform music professionally.

“I enjoyed working at a publicly supported radio station that plays some good music in this not-so-good radio area,” said Moskowitz, while also sharpening his skills as a music critic.



## Jennifer Donato and Sophie Demuynck – THEATER

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Both Jennifer Donato and Sophie Demuynck worked at The Wilma Theatre in Philadelphia for their senior projects. They participated in many of the day-to-day operations required to run a theater, such as reading and reviewing queries from playwrights, reading play excerpts and providing feedback, conducting patron telephone surveys, performing analytical research for foundation grants and even running lines with the actors. For Donato, her month-long stay provided a valuable insider's perspective into the theater industry. "I absorbed the vast background of the theater world and how much intricate and dedicated work is critical to success," she said. "I learned what it takes to break into the business ... and that there is no recipe for success – unconventional rules." She plans to major in drama at Ithaca College, where she will study directing, design aesthetics and criticism of drama and playwriting.

Demuynck, now attending Smith College, is considering a career as a professional stage manager. She was impressed how the stage manager from The Wilma meticulously crafted a show, armed with only a script and a headset.

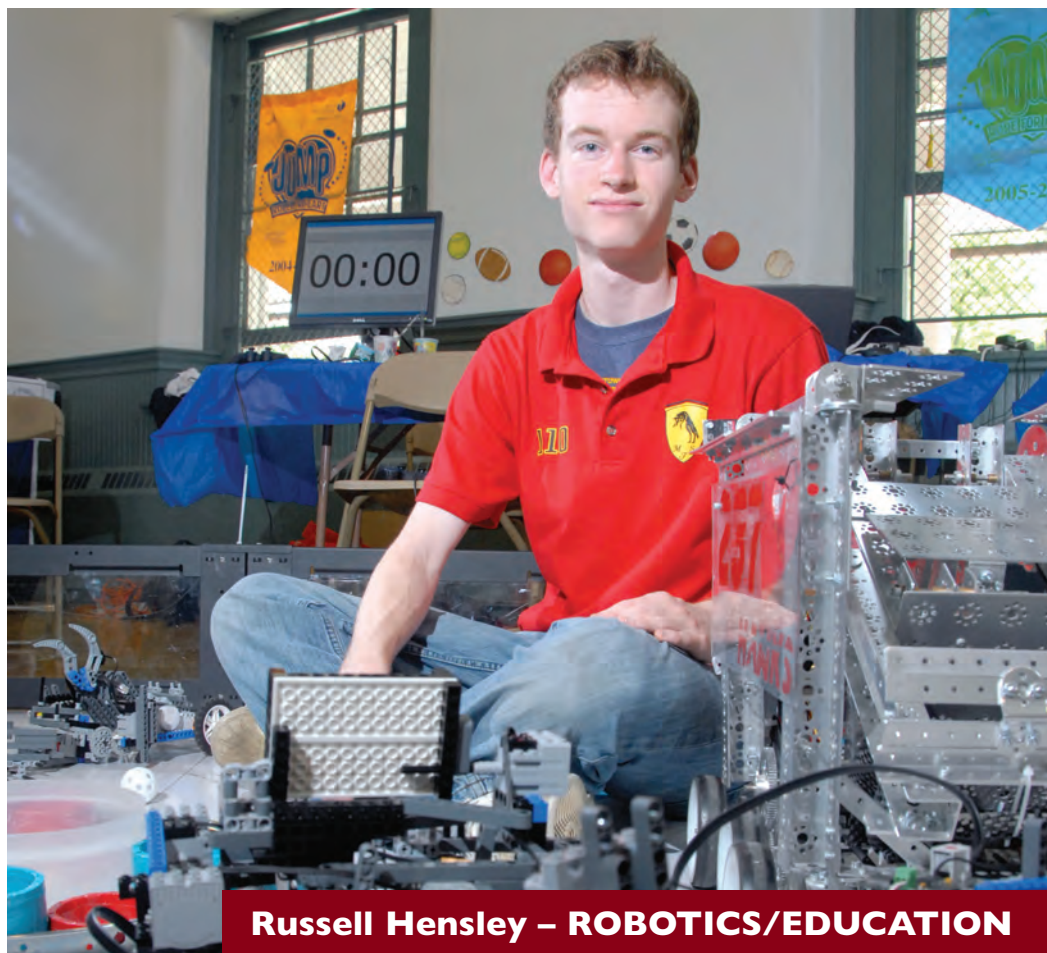
"Though everyone is different and diverse in their own way, drama definitely attracts certain personality types," said Demuynck. "All the people I worked with in the office were extraordinarily dedicated and willing to help or explain anything."

### Russell Hensley – ROBOTICS/EDUCATION

For his honors capstone project, Russell Hensley designed and organized a middle school robotics competition, the "MiniTech Challenge." He competed on the MFS robotics teams for the past two years, both years advancing to the First Tech Challenge World Championship event in Atlanta. The

purpose of this project was to give middle school students an opportunity to learn about science and technology while having fun competing. The MiniTech Challenge involved LEGO's NXT robotics system with which some of the middle school participants were familiar. The competition also included elements of the high school competition by allowing teams to remotely control their robots with video game controllers. Teams were tasked with designing, building, and operating a robot to traverse a course and to move and pick up wiffle balls faster than opponents. Participating teams came from three schools: Moorestown Friends School, KIPP Freedom Academy in Camden, and Blankenburg Middle School in Philadelphia. The teams competed in the official MiniTech Challenge on May 16 in the West Building Gymnasium.

Hensley now attends Carnegie Mellon University.



## Russell Hensley – ROBOTICS/EDUCATION



**Matthew Purcell – ENGINEERING/AVIATION**

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ENGINEERING/AVIATION**

For his senior project, Matt Purcell worked for the Federal Aviation Administration (FAA) at the Philadelphia International Airport, during which he spent time learning about the airport and the inner workings of the FAA and Air Traffic Control (ATC). Specifically, he made changes to job folders and procedure binders, reviewed airport incident reports and monitored operations in the air tower. In addition, Purcell contributed to a safety management risk document at the FAA Technical Center in Atlantic City for the new Airport Layout plans.

“Every day I learned something new, gained a better experience and overall knew more about aircrafts, air space, flight data, radar systems, airport management and procedures than the day before,” said Purcell, now attending Rochester Institute of Technology. His career goal is to become an industrial engineer.”

**Anya Gelernt –  
POLITICS**

The student coordinator of the 2008 MFS Mock Primary Election landed where you’d expect for her senior project. Anya Gelernt worked in U.S. Congressman John Adler’s office in Washington, D.C. She dealt with a wide range of people, from the Congressman to staff from members of Congress, to lobbyists, to constituents. She tracked and responded to constituent mail, served as a messenger delivering co-sponsor papers to the Democratic cloakroom, sat in on committee hearings and observed a House vote. She was also responsible for Congressman Adler’s YouTube and Flickr accounts, carefully managing the content posted.

“I want to come back to Washington and work for the government,” said Gelernt, who is attending Tufts University. “So getting to see what really happens in a D.C. congressional office was a great learning experience.”



**Anya Gelernt – POLITICS**



**Lydia Smith - ARCHITECTURE**

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For her senior project Lydia Smith worked at the architecture firm Voith & Mactavish in Philadelphia. She spent a large portion of her time on a project for several Philadelphia-area country clubs undergoing renovations. She managed the blueprints for the projects, obtained measurements to ascertain how much square footage each of the new rooms

would require, and compiled comparative data. In addition, Smith visited construction sites for firm projects, participated in staff meetings and was quickly recruited to the office softball team. She has been oscillating between engineering and architecture as a career path.

“This internship gave me genuine insight into the world of design and architecture,” said Smith, who recently began her studies at Vanderbilt University.

**Tyler Catanella - THEATER**

For his capstone project, Tyler Catanella wrote, produced and directed the play *Serpentine Hill*. The play weaves together four of Edgar Allen’s Poe’s most well-known, chilling tales into one play that takes place in the town of Serpentine Hill. Catanella sought to combine the worlds of modern theater and 19th century literature into one project that could stand by itself, without either element consuming the finished piece. “I wanted to explore theater beyond acting, and I definitely did!” says Catanella. “I got to be a playwright, a director and a producer.”

He especially enjoyed interacting with his peers on a different level, being able to direct them in a professional theater setting. Catanella is attending Emerson College for acting and education with plans to teach theater at the college level.



**Tyler Catanella - THEATER**



**Douglas Boyer - ENGINEERING/CONSTRUCTION**

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Doug Boyer worked alongside Burlington County Habitat for Humanity’s construction manager for his senior project. He had the opportunity to participate in all aspects of the construction process such as: completing and submitting applications for building permits, reading blueprints, creating materials lists from blueprints, ordering materials for projects, learning building codes and meeting with subcontractors. In addition, Boyer gained hands-on experience in the construction work itself ranging from running wires and installing appliances to pouring concrete and building porch railings. Since Habitat-built homes are considered “green” homes, he also worked on installation of a geothermal heating system and rooftop solar panels.

He plans on studying structural design and construction engineering technology at Penn State with the intent of becoming a construction manager or engineer. “Every day of work presented new tasks and challenges and new opportunities to learn,” said Boyer. “Working with a construction manager has reassured me that I do want to pursue a career in this field.”