103  The Art of Ceramic Raku Firing  
Brodie, E.

Short title (transcript): The Art of Ceramic Raku Firing

This course offers students who are passionate about the ceramic arts an opportunity to actively manipulate their work in the final stage of the ceramic process: the firing. They will learn about the techniques and procedures developed by 16th Century Japanese potters through independent research, slide presentations and demonstrations. Raku is an exciting process with its spontaneous immediacy and its delicate blend of control and experimentation. Students will learn by creating hand built and thrown pieces using a special clay body and glazes. Finally, the work will be heated in an outdoor kiln in a rapid firing cycle, the pots being placed into and removed from the kiln at or near the optimum firing temperature with metal tongs. The hot pieces are then placed into combustible materials in order to alter and enhance the surface. (Must have taken at least two semesters of Ceramics.)

Final Assessments/Products: hand-made and thrown pieces, a journal/sketchbook

104  The Sociology of Poverty: Putting Learning into Action  
Addison, Fischer

Short title (transcript): The Sociology of Poverty

Why SHOULD we do community service? Why is the United States marked by such a large disparity in wealth and opportunity? What is the difference between “helping” and “serving”? How is it possible that the housing projects and soup kitchens of Newark and the Oranges are less than ten miles from the beautiful campus of NA? These questions and others will be addressed in an interdisciplinary seminar-style format that explores issues around social justice, poverty, and the importance of service for American society in the twenty-first century. Students will focus their study around history, sociology, philosophy, and economics of poverty in three main areas: hunger, homelessness, and public education. Students will extend their learning beyond the classroom by participating in community service learning experiences over the course of June Term, which will correspond to the issues studied in class, specifically including a Midnight Run homeless relief mission in either Newark or New York City (see midnightrun.org) and a chance to tutor and meet public elementary school students in Newark. Students will learn to debrief, contextualize, reflect upon, and apply the importance of community service to other aspects of their lives. Participants should note that they will not receive credit toward the Newark Academy community service requirement for time served in this course. Instead, those enrolled can expect academic credit and enriching experiences of serving those less fortunate and building community within the classroom.

Final Assessments/Products: final reflection project

105  Musical Composition as Self-Expression  
Emelianoff

Short title (transcript): Musical Composition as Self-Expression

Duke Ellington has been often quoted, “There are only two types of music, good and bad.” Through an exploration of the elements common to all good music—melody, harmony, rhythm, form, color, and texture—examples from master composers past and present will be analyzed, compared, and emulated, with the goal of creating short, coherent, readable and playable compositions. Guest composers will share their expertise of bringing musical ideas to life. A field
trip to NJPAC is planned. Homework will include listening, analyzing, and composing. Assessment will be based on creativity, coherence of ideas, and application of techniques learned in the course.

Final Assessments/Products: concert featuring pieces composed by class members

108  *From Page to Stage: The One-Act Play*  
Scerra, Jacoby

Wanted: Fourteen supremely talented and absolutely fearless students willing to navigate the choppy waters of literary criticism and theatrical production. Applicants should possess excellent communication skills, a willingness to both lead and follow, and a strong work ethic. During the nine-day voyage, the class will read, analyze, write, rewrite, and perform one-act plays. The culminating experience will be the production of two one-act plays; these student-written plays will be selected, cast, and developed by the twelve members of the class. All students will receive the opportunity to work onstage and backstage as part of this culminating experience. In preparation for the performance, students will be exposed to the basics of technical theatre and playwriting, while drawing on the lessons learned during our literary analysis. Life preservers will be provided on request.

Final Assessments/Products: public performance of student-written one-act plays

110  *Breakthroughs in Chemistry: Molecules and Concepts that Changed the World*  
Hobson, Ryan

This course will focus on how several molecules have radically changed the course of history. For example, the search for spices (pepper, nutmeg, cloves) led to the “Age of Discovery” where European explorers ventured throughout the world in a quest for these substances. Ascorbic acid (Vitamin C) prevented scurvy and allowed long distance sea voyages. The impact of each molecule (or class of molecules) will be examined from a historical viewpoint. Laboratory experiments have been selected for each of these molecules. It is anticipated that each student will develop an appreciation of the role that chemistry has played in history and how chemistry plays a dramatic role in our society. Polymers (fabrics, plastics), pain medication (aspirin), antibiotics (penicillin), dyed fabrics, explosives, perfumes, and energy conversion (batteries) are a few topics that will be explored theoretically and experimentally. This course will build on the concepts from the traditional chemistry course but the emphasis will be on history and real world applications and less on theoretical concepts and problem solving. *(Prerequisite: Chemistry)*

Final Assessments/Products: presentation on a molecule and its associated scientists and impact on history

111  *Engaging with Chinese Culture*  
Ma, Lee

This course will contain not only basic history (their origins, for instance) and impacts of the Chinese cultural activities offered, specialists trained in each activity will make guest appearances to teach students how to perform every activity introduced. Such activities will
include History, Martial Arts, Architecture, Medicine, Traditional Festivals, Cuisine, Calligraphy, Painting, Paper Cut, Chinese Jade, and Chinese Shadow Plays. Students will interact with the teachers and their classmates to discover cultural differences through reading a series of works that explore the philosophy of Confucius, Qing Shi Huang, and other historical figures. Readings will include famous places, landmarks, and people. We will compare these to those of Western culture. The class will have three field trip destinations: Chinatown, Snug Harbor Cultural Center and Botanical Garden, and a Chinese Holistic Medical Clinic.

Final Assessments/Products: activity folder, model-making, short paper, presentation

113  Food and the American Identity  Schottland, Vinikoor

Short title (transcript): Food and the American Identity

You are what you eat! Nowhere is this truer than in America. We are “the breadbasket of the world,” and we are a nation of immigrants whose culinary cultures have shaped and enriched the American palette. We are also a nation struggling with the paradox of plenty. Students in this course will explore the foods in the American culinary repertoire and the aspects and origins of our diet. They will engage in hands-on tasting and cooking experiences, as well as learn from experts in the field. With visits to Manhattan’s Lower East Side, an urban organic farm in Newark, and an industrial Portuguese bakery in the Ironbound, students will explore places important to the history and future of the American diet. Students will also study and research the food traditions of their own culinary heritage. Nightly homework will include maintaining a food journal and completing reading, writing, and cooking assignments.

Final Assessments/Products: food journal, two essays, preparation of a final meal, and a recipe book

116  Leadership in the 21st Century  Kanarek, Griffin

Short title (transcript): Leadership in the 21st Century

In this course, we will explore new ways of thinking about leadership and collaboration and provide practical skills to apply to our leadership roles and teamwork in the community. Every day, students at Newark Academy work in teams in athletics, clubs, arts endeavors, and the classroom. In corporate, nonprofit, and academic settings, too, daily work involves leading collaboratively in fluid teams where expertise, communication, and vision are often just as important as authority. Put another way, giving someone a leadership position does not make that person a leader! This course starts with the premise that classic lessons of leadership are important but no longer sufficient for success in today's fast-paced, fast-changing, and interconnected world. We will use short readings, fiction, TED Talks, and leadership testimonials to explore the skills and ideas that today's leaders need. Team projects, case studies, leadership games, and role-playing activities will help us learn on the job. Finally, we will form teams to develop solutions to real-world problems identified by the class. A field trip to the High Line in Manhattan will provide a model for this process. We will examine how that project emerged from local needs and desires and ask how leaders of the project collaborated to create the final product. Did it accomplish its mission? Through this combination of real-world lessons and leadership practice, we will each develop our own leadership style and skills to bring back to the community.
Final Assessments/Products: group project and presentation proposing a solution to a difficult adaptive challenge

117  **Sabermetrics: The Mathematics of Baseball**  
Short title (transcript): **Sabermetrics**  
Blaskopf

Students who take this course will gain insight into the role probability, statistics, and statistical analysis play in the sport of baseball. They will use scientific calculators, computers and software, such as Excel, to further understand baseball through the study of today's "new" baseball statistics. Not only will students study the basics, such as batting averages (BA) and earned run averages (ERA), but they will learn and understand new statistics such as On Base Plus Slugging (OPS) and the Pythagorean Theorem of Baseball. Students will analyze the question: "do the numbers tell the whole story?" Students will also learn how to prepare and present an argument in support of their final presentation. Students will hear presentations from experts in the field of Sabermetrics, and will either, attend and analyze a minor league baseball game after visiting the Yogi Berra museum, or visit the Baseball Hall of Fame, in Cooperstown New York, for a presentation on statistics. Homework will be assigned every day and will provide practice and a focus on the skills learned each day.

Final Assessments/Products: a mathematical paper regarding the HOF eligibility of three players and a verbal presentation on one of these players

119  **Nature Writing**  
Short title (transcript): **Nature Writing**  
Beckman, Powell

In this course, we will explore the genre of nature writing through literary study and outdoor activity. By reading short stories, poems, and essays by a range of authors, we will analyze and understand what elements contribute to a strong piece of nature writing. We will also discuss the influence of place and setting on writers, as well as the importance of learning from and in the natural world. With these literary reflections in mind, we will spend a significant amount of time outdoors, engaging with the natural world through both peaceful observation and physical interactions on a daily basis. Students will keep a journal throughout the course and will have many opportunities to write both freely and in response to a variety of prompts. We will spend time in three distinctly different natural places—NA's nature trail, the Jockey Hollow historical park, and the beach at Sandy Hook—writing about the effects of nature on our own sense of place and self. These journals will serve as source material for the final product of the class: two polished pieces of nature writing. Significant class time will be dedicated to the writing, revising, and editing of these pieces. *Students must be able to complete a modest hike.*

Final Assessments/Products: two polished pieces of nature writing

122  **3-D Printing, Technical Drawing and Modeling**  
Short title (transcript): **3-D Printing and Technical Drawing**  
Kesler, Erlandson

The Makerbot Replicator is a computerized glue gun that prints by building up thin beads of hot glue into solid objects! CAD software such as the freeware programs Sketchup and OpenSCAD are used to build the 3D models. You’ll learn to use several different design programs to model and print all sorts of objects. If you can imagine it, you can (eventually) build it! You might design a piece to replace the broken arm of your prized Bionicle, or you might print out some replacement buttons for your shirts. If you’re interested in computers, sculpture or architecture,
physics or engineering, mathematics, or if you just love watching the Makerbot “go,” this course is for you! See for yourself what the Makerbot can do (on YouTube). Also visit thingiverse.com for an idea of what is possible with this amazing device.

**Final Assessments/Products:** individual project, component of group project

**123 Creative Writing: Using the Monomyth to Write Your Masterpiece**
Short title (transcript): Creative Writing through the Monomyth Morin, Romay

This course will offer skills and knowledge in two categories: Mythological structure and creative writing. Students will study the stages of Joseph Campbell’s “Monomyth” as it applies to literature, history, film, and mythology from around the world, and will use the structure to design their own creative work. They will learn writing skills including characterization, dialogue, point-of-view, and the development of plot and setting. By the end of the course, students will have produced a master work that they will publish.

**Final Assessments/Products:** a personal monomyth

**124 From "Father Knows Best" to "Modern Family": Analyzing and Creating Sitcoms about the American Family** Lifson, Barker
Short title (transcript): The American Family in Sitcoms

This class will analyze the way television has portrayed the American family from the 1950s through the present. Students will understand sitcoms as part of the cultural history of the United States and will see how sitcoms might reflect one or more of the four following “approaches”: reflect reality, idealize or intentionally distort reality, expand the view of the American family, and/or directly challenge us to engage in social change. Throughout the class, students will watch television, compare shows, examine trends, and do exercises in which they write their own scenes from sitcoms and act out scenes. In the end, students will create a sitcom of their own (either based on an older sitcom or an entirely new idea), develop scenes and a story board, and work to pitch a pilot to a hypothetical network.

**Final Assessments/Products:** a pitch to a television network for a modern-day sitcom, to include sample scenes, characters, and a story board

**125 Digital Photography — On Location** Dixler, Ungaro
Short title (transcript): Digital Photography — On Location

This digital photography workshop will feature several on-location photo shoot experiences in New York City (Central Park, Bryant Park/Midtown and South Street Seaport, for example) and other off-campus locations. A major construct to this course will be the use of “themes” for each on-location photo shoot including texture, patterns, architecture, shadows, etc. Students will be given instruction with photo editing software. Additional time will be spent critiquing each other’s work as well as the work of professional photographers. While this June Term course is presented as an introduction to on-location digital photography, students with previous photography experience are welcome and encouraged to shoot at their own level of expertise.
126  **Walking Manhattan: Up Broadway from the Battery to 190th St.**
Short title (transcript): *Walking Manhattan*  
Parlin, Acquadro

The group will walk from the Battery, up Broadway, the length of Manhattan Island to 190th St. The walk will be reasonably demanding. Specific topics that will be explored include architecture from Greek Revival to skyscraper to modernism; immigration and ethnic neighborhoods; the traditional, albeit somewhat diminished, role of New York city in the nation’s economy; successful and unsuccessful designs of “green spaces”; and infrastructure, cultural institutions, and financing of cities. Each day a short reading will be given out to be read by the participants in preparation for the subsequent day. The reading selections will include Jane Jacobs but will be diverse. Along the way, the group will stop for short lectures regarding various aspects of the city based in part on the previous night’s reading and for discussion of student observations. Students in this course should be prepared to work hard independently to process and demonstrate understanding of the various levels of meaning in the city, from the personal to the political.

Final Assessments/Products: daily journal, final creative product—possibly literary or photographic in nature—demonstrating scholarly and personal reflection and insight on course themes

128  **No Guts, No Glory: A Comparative Study of Animals with Backbones**
Short title (transcript): *Vertebrate Biology*  
Hone

Students will have an opportunity to fully explore jawless, cartilaginous and bony fishes, amphibians, reptiles, birds and mammals through dissections of the following: Lamprey, dogfish shark, perch, necturus, turtle, pigeon and rat. This course is designed for the student who wants more opportunities to fully examine vertebrate animal specimens and become more knowledgeable about the interrelationships between specimens. Answers to questions such as what are the evolutionary benefits of four limbs, feathers, and the amniote egg will be better understood at the end of this course. Additional time will be spent outdoors exploring the woods that surround Newark Academy to enhance the student’s knowledge of how vertebrates are adapted to life in aquatic and terrestrial environments. An all day field trip to the Camden Aquarium and the Edwin Forsythe National Wildlife Refuge in Brigantine NJ will heighten the student’s interest in the diversity of vertebrate animals. The alternate name for this course is: No Guts, No Glory! The course is designed for the student who thoroughly enjoys hands-on learning and dissection.

Final Assessments/Products: Digital Portfolio

129  **The Future of Food: Nutrition and the Food Revolution**
Short title (transcript): *The Future of Food*  
Gordon, R.; Gordon, H.*

In 1906, W. K. Kellogg began mass marketing a flaked cereal with added sugar he called Corn Flakes. People adored it, and processed food was born. Today, we have hundreds of packaged foods in the grocery store that we all know and love, but what are these foods actually doing to us? This course will be
an intensive study of the biological and nutritional aspect of the food we eat.

The themes of this course are (1) Nutrition and (2) The Food Revolution. In the first theme, we’ll look at the evolution of humans and nutrition to better understand what nutrients we need. We’ll study processed food, why it was created, and what problems have arisen from it. We’ll look at “food deserts” and the growing food inequality that causes so many health problems. In the second theme, we’ll go on field trips to restaurants and bakeries to find out what “counter revolutions” many people have embraced. We’ll talk to farmers about local food and genetically modified organisms. Above all, we will fully engage with the food that surrounds us every day and decide what we each think the future of food should be.

**Final Assessments/Products:** Food journal; Project on unrecognizable ingredients; Map Project on Food Deserts; Final Presentation on “Counter Revolution” with menus of healthy and unhealthy versions of the diet in that revolution

130 **Newark Academy Book Publishing Bootcamp (“NA + 5/Q”)**  
Short title (transcript): *Book Publishing Bootcamp*  
DeSanta, Gabb

This course invites June Term students to be guest staffers for Five Quarterly’s Second Annual E-chapbook Contest. The students will select one winner each in the categories of Fiction and Poetry from a pool of finalists, and will produce and publish these winning chapbooks. The course will simulate a publishing house and its various departments: Editorial, Marketing, and Arts. Each day of the course will be modeled on a real day in the life of a publishing imprint and will be broken up into "cubicle time" in which students work individually, "department meetings" in which students converse with their fellow editors/marketers/arts colleagues, and "all staff meetings" in which the departments come together. The course will include a visit to a major publishing house in NYC and culminate in a launch party to celebrate the winning selections. Students will develop real workplace skills such as creativity and an independent work ethic, as well as the ability to communicate, compromise, and work as a team. Homework will consist of reading and re-reading manuscripts, keeping a book of manuscript notes, and continuing research initiated during the day. We welcome students from all grades. We encourage students who are skilled in InDesign and/or Photoshop and artists. Read First Annual E-chapbook Contest winners here and here.

**Final Assessments/Products:** Publication of one Fiction and one Poetry E-Chapbook to be launched in conjunction with fivequarterly.org.

131 **History of Military Strategy**  
Short title (transcript): *History of Military Strategy*  
Torson, Reed

The class will study and analyze the strategy and tactics employed in key battles involving different eras and campaigns throughout the past 2500 years. In conjunction with each battle, there will also be the introduction of how a particular technology played a part in the strategy of that time period and battle. Time will be set aside for students to research a particular era and battle that they will present to the class at the end of the course for their final assessment. There will also be time each day for an on-going strategic game session that will give students a chance to employ tactics against one another in a variety of games like Risk, Tactics & Diplomacy as well as in outside games like Battleship and Capture the Flag. Students will be
asked to use these games as inspiration in their final projects to create a visual means—perhaps the design of a game—that captures the military tactics of the particular battle they have chosen to research.

**Final Assessments/Products:** Presentations (individual or in pairs) on a battle and the military strategy and technology used, based in research presented in a short paper. Presentations will include a visual component, like an original strategic game.

### 132 **Documentary Filmmaking**
Milani, Brodie, M*  
Short title (transcript): **Documentary Filmmaking**

Students will learn and practice all the phases of film production in order to create their own short documentaries in small groups. In Pre-Production, students will plan for the shoot, which includes screenwriting, storyboarding, camera shot selection, and preparation to ensure a smooth and well-organized shoot. In the Production phase, students will be filming and recording the appropriate footage working in small teams. Students will learn how to compose visually and stylistically desirable shots and to use lighting to further these results. In Post-Production, students will learn to edit their footage. Students will work in computer-based editing software to form a cohesive and exciting final film. They will learn to make appropriate cuts and transitions to fit documentary film styles. They will also learn basic color correction and sound design techniques to further aid the final film. The course will wrap with each of the teams presenting and screening their short documentary films to the class.

**Final Assessments/Products:** About three short documentaries, one per small group, on topics to be approved by the instructor, possibly to include June Term activities

### 133 **STEMtastic: Discovering How Things Work**  
Bitler, Bunch  
Short title (transcript): **STEM: How Things Work**

This course will involve students in a two-week experiential and brain-stretching immersion into the exciting techno world of modern science, technology, engineering and math (STEM). The goals of the course will be to engage and excite students with regard to STEM subjects, to get them to think out-of-the-box, to familiarize them with many current and near future complex technologies, to engage them in building and designing solutions to technological problems, to strengthen their analytical thinking skills, and to bolster their math abilities and broad science knowledge. Students will use the skills and knowledge from the course in order to design a working robot in small teams. In the first week the course will introduce students to the robotic capabilities of Lego Mindstorm through sample challenges. In the second week students will collaborate in small teams to build robots that to compete in a culminating challenge. Students who take the course should have good math skills (and be taking Algebra II or above), a strong interest in science, engineering and technology, and a desire to solve puzzles.

**Final Assessments/Products:** Lego Mindstorm Robotics Challenge in which small groups build robots to accomplish a specific set of tasks in the shortest amount of time possible
One of the most intense and rewarding intellectual experiences at NA is the researching and writing of the Extended Essay, a 4,000-word paper required of candidates for the IB Diploma. This is typically done between junior and senior years. After completing this course, students will have turned in a solid rough draft of such an essay as their final product for the course. Students will work with each other and with the teachers in order to share ideas for research and writing. Two days will be spent at local university libraries identifying and gathering sources. While the explicit context for this course is writing a specific essay, the skills that will be gained (research, planning, writing) will be applicable to many larger writing and research projects that NA students will encounter in the future.

**Final Assessments/Products:** a solid draft of the research paper—with full references

### GUEST INSTRUCTOR BIOGRAPHIES

**Hannah Gordon**

Ms. Gordon received her B.A. from the University of Chicago in mathematics and music, and she also received her M.A.T. from the University of Chicago in urban education with a specialization in math. She spent one year as a full time math teacher at a massive inner city high school, in a neighborhood commonly referred to as a "food desert." During this year, her priorities as an instructor shifted greatly; by the end of the year, she was much more concerned about her students' diets than about their struggles with math. She is currently pursuing a Public Health degree, with which she hopes one day to help improve school nutrition programs. She also has extensive experience giving music lessons and tutoring students in math and standardized test preparation.

**Mark Brodie**

Mark I. Brodie runs MIB Mediaworks and is an Emmy-winning broadcast professional who has enjoyed a distinguished career and has partnered with leaders in the field such as CBS News, collaborating on more than 70 magazine shows for 60 Minutes, 48 Hours, NBC Dateline, CNBC and other broadcasts. His segments have earned 6 Emmys, a Peabody, a Dupont award, and a Telly award. He is also a gifted educator who will bring experience and enthusiasm as a guest instructor when he visits Mr. Milani’s new course. (Bio courtesy of MIB Mediaworks)