FALL 2016 - SPRING 2017

BYRNE Seminars
The Politics of Knowledge
As we enter another election season, from national debates to global summits, political struggles saturate our daily lives. Turning to the way we conceive of our ever-changing, globalized world, this year Byrne Seminars takes up The Politics of Knowledge as our annual theme. Academia has long been the space to both seek and gain knowledge. From Confucius to Plato to our own 21st-century smart classrooms, our ways of seeking, gaining, and disseminating knowledge have radically transformed over the centuries. Our ways of understanding the world have continually shifted as well. As a research university, Rutgers is part of the production and expansion of knowledge. Our renowned faculty from across the disciplines are engaging with questions that will shape the 21st century. Francis Bacon’s famous quote “knowledge is power” speaks to the very political nature of knowledge. And we know today that knowledge itself is commodified like never before, and so becomes social, political, and financial capital. Thus, this year’s seminars will consider the following questions: How do we know what we know? Who has access to knowledge production and education? What are the roles of academia, government, and industry in producing knowledge? Who determines canonical works and the artists, historians, philosophers, and scientists we study? We invite you to share in our exploration of The Politics of Knowledge by joining Byrne Seminars.
As we celebrate our 250th anniversary, we will have so many opportunities to reflect on the history and legacy of this great university. From our revolutionary beginnings as one of the nation’s nine original Colonial Colleges, Rutgers–New Brunswick has grown into a world-renowned, comprehensive public research university. To say that education has been transformed during this time is to state the obvious: our students and faculty are conducting cutting-edge research using state-of-the-art technology while collaborating in real time with colleagues around the world to address some of the most pressing issues of our time. Yet, I believe that the essence of education has remained remarkably unchanged—inspiring teachers igniting the intellectual passions of creative students, challenging them to become tomorrow’s leaders.

Thanks to the generous support of Dorothy and John J. “Jack” Byrne, we have built a first-year seminar program on this educational premise. Through the Byrne Seminars, incoming students are given the opportunity to study with our world-class faculty in small, discussion-based seminars at the beginning of their academic careers. These one-credit seminars are designed to encourage our students to explore new areas of interest as they develop their own intellectual focus. It is simply not possible for first-year students to appreciate the vast and varied academic opportunities available to them when they enter Rutgers. The Byrne Seminars provide a vital introduction, helping to define the contours of the sweeping scholarly landscape that lies ahead.

Students entering Rutgers during our 250th year are beginning their academic careers during perhaps the most exciting time in our University’s storied history. We have recently completed an unprecedented integration with the former University of Medicine and Dentistry of New Jersey, creating Rutgers Biomedical and Health Sciences, which will offer a stunning new array of educational opportunities for our students. We are in the midst of the largest comprehensive capital construction phase in Rutgers’ history, and the buildings going up around all of our campuses will provide modern facilities for 21st-century teaching and learning. And, of course, we are the newest members of the Big Ten athletic conference and its academic counterpart, the Committee on Institutional Cooperation.

To help guide us during this transformative period, our University community worked together for nearly two years to articulate a vision for Rutgers’ future, which included creating a detailed strategic plan for Rutgers University–New Brunswick. Our institutional commitment to transforming the student experience provides the central axis for this plan, as we strive to ensure Rutgers is student-centered and relentlessly focused on student success. We are fortunate to be able to rely on proven programs like the Byrne Seminars as models for new initiatives to help us further enhance the student experience.

An exciting addition to the Byrne Seminars is its partnership with a new program, RU-1st. RU-1st is a series of initiatives focused on increasing student persistence and graduation rates for first-generation, high-need and underrepresented students. The Byrne Seminars and RU-1st will partner to offer a number of courses to continue dialogues on issues of equity and access on our campus.

I strongly encourage all first-year students to browse the tremendous offerings from this catalogue and enroll in a Byrne Seminar. These seminars have helped thousands of students forge their academic path through Rutgers. Explore the fascinating topics from across the disciplines and see what a Byrne Seminar can offer you.

Richard L. Edwards
Chancellor, Rutgers University–New Brunswick
FROM THE VICE CHANCELLOR

As you enter Rutgers, you become part of a community of faculty and staff and upper-level students eager to welcome you to a world of new ideas, surprising discoveries, diverse peoples—in other words, a major research university offering you a myriad of new opportunities. You need only be energetically curious.

With the generous support of Dorothy and John J. Byrne, we developed the Byrne Seminars to give all Rutgers–New Brunswick first-year students an opportunity to work closely with tenured faculty and a small group of peers at the outset of their college careers. These one-credit courses have been designed—with correspondingly lighter workloads—to offer you an easy way to explore fields of study and research outside your comfort zone. These seminars allow you to learn about faculty research and introduce you to areas of academic interest that may set you off on new career paths: media in the digital age, stem cells and bioengineering, musical poetry, New Jersey’s shore and climate change, and many more.

Students who took a Byrne Seminar during their first year often report that getting to study with a professor in a small seminar environment had a profound impact on their collegiate experience, often opening the door to research opportunities, and providing direction as they chose a major. Our students also tell us that through their Byrne experience they formed an intimate community of friends with whom they continue to share both academic and co-curricular interests and activities as they navigate life at Rutgers and beyond.

Participating Byrne faculty come from departments and professional schools across the university. They applaud these first-year seminars and share their excitement in introducing incoming students to their work and research. Our faculty mentor and offer students support beyond their Byrne experience, too. Some students become research assistants to their former Byrne professors through the Aresty Research Center, or they receive guidance when applying to graduate or professional schools, or begin looking to enter the workforce.

These unique seminar opportunities are essential for students making the transition from high school to college and in building an intimate intellectual and social community. Byrne Seminars are an important part of how we welcome you to Rutgers, and to the kind of life enrichment that we are certain the love of learning brings.

Ben Sifuentes-Jáuregui
Vice Chancellor, Undergraduate Academic Affairs
Chancellor Richard L. Edwards announced RU-1st on November 24th as an initiative to increase support, coordination, and programming designed to assist first-generation, high-need, and/or under-represented students. The main objective of RU-1st is to make Rutgers more accessible and supportive for students who are the first in their family to attend college.

RU-1st provides a series of initiatives that includes high-impact programming and identifying school-based resources for first-generation, and/or under-represented students that eases the transition to college, and ultimately assists with student retention and graduation. RU-1st will continue to expand on the successful outcome based models of units within Student Access & Educational Equity and increase the Rutgers community dialogue on issues of equity, diversity, and access.

As part of the RU-1st initiatives, we are expanding Byrne Seminars aimed at increasing awareness of critical and wide-ranging local, state, national and other important issues confronting higher education. Throughout the catalog you will find the icon next to seminars that are specifically designed with first-generation students in mind. These seminars will highlight the dialogue on issues of access and equality that we aim to foster through RU-1st initiatives.

WHAT ARE BYRNE SEMINARS?

Byrne Seminars are small, one-credit courses, limited to 20 students. Offered through the Office of Undergraduate Academic Affairs, these classes are taught by our world-renowned faculty, who come from departments and professional schools across the university. Each unique seminar offers students the chance to experience the excitement of original research, as faculty members share their curiosity, their intellectual passion, and how they develop new ideas and fields of knowledge. Some seminars take field trips, do hands-on research, or share a meal at the Rutgers Club. Seminars typically meet for 10 weeks, starting in the first week of each semester. You may take up to two Byrne courses in your first year, in consecutive semesters. The seminars are graded Pass/No Credit, and have no formal exams. Students may register for a one-credit seminar in addition to the 12-15 credit standard course-load: the seminars are not meant to compete with other courses.

HOW DO I SIGN UP?

You can register for a Byrne Seminar when you select your other courses this summer or you can add a Byrne to your schedule online through WebReg during the first week of classes. This catalog also includes section and index numbers for each fall seminar below the course description. You may find the Online Schedule of Classes useful in determining which courses are open and will fit best into your schedule. Enter subject code “090” and course number “101” to get a list of Byrne Seminars for the semester, including up-to-date information about time and location.

HAVE QUESTIONS?

Email Angela Mullis, Director at: byrneseminars@rutgers.edu / Call 848.932.6971
Or visit our website: WWW.BYRNE.RUTGERS.EDU

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Aresty-Byrne Seminars

Traditional Byrne Seminars are designed to introduce incoming students to Rutgers faculty and to the exciting research being conducted at one of the nation’s top research institutions. The Aresty Research Center builds on this introduction by placing undergraduates with faculty mentors. With the Aresty-Byrne Seminars, these two signature educational initiatives in the Office of Undergraduate Academic Affairs are collaborating to meet the increasing student demand for research-based learning opportunities. Aresty-Byrne Seminars take traditional Byrne Seminars one step further by selecting students from the seminar as research assistants.

Aresty-Byrne Seminars take traditional Byrne Seminars one step further and ask students to participate in their professors’ research through the practical application of knowledge. In other words, these seminars expose students to the activities of research—from building robotics to collecting specimens in the field to working through an archive. Professors leading these courses then offer an Aresty research project for the next year, and select students from the seminar as research assistants.

**Politics of Abortion**
Cynthia Daniels (Political Science)
This seminar will analyze the politics of abortion in the United States and around the world through social media, legal cases and legislative battles. Over the past three years, hundreds of laws have passed in various states restricting access to abortion. Social media plays a major role in shaping public discourse regarding this politically volatile issue. This seminar will analyze the Roe v. Wade decision as well as the heated controversies which have grown up around the pro-life and pro-choice movements.

**Trees: Your Campus and the Environment**
Jason Grabosky (Biology, Evolution and Natural Resources)
Trees, like Rutgers, can exist for 250 years and longer. Many of the forests in New Jersey are described by the dominant species of tree in that plant community, and forest types change depending on where you live. Of course there are reasons why some tree species grow in New Jersey but not elsewhere. In this seminar, we will explore how the environment influences what trees occur where, and why they look the way they look. We will do this while exploring the campuses and natural spaces of Rutgers, New Brunswick. Finally, we will discuss major forests and trees in North America and consider how a changing climate suggests a changing forest.

**Hacking Sound: A Hands-On Introduction to Electronic Music**
Steven Kemper (Music)
Since the late nineteenth-century, musical pioneers have been harnessing the power of electricity to create new and exciting sonic results. In this seminar, students will learn about electronic and computer music by building and hacking their own electronic musical instruments. Assuming no previous experience, students will develop technical skills in acoustics, circuit design, human-computer interaction, microphones, programming, recording, and synthesis. Students will also learn musical fundamentals, both as performers and composers in the ensemble of handmade instruments. The semester will culminate with a public performance of original music.

**The Politics of Genetic Manipulation**
Alice Liu (Cell Biology and Neuroscience) and Samuel Gunderson (Molecular Biology and Biochemistry)
This seminar on the politics of genetic manipulation will provide students with a good grasp of issues central to the balance and conflict of science knowledge versus politics. It is important to understand these issues, because like the air we breathe, science and politics are integral parts of our modern society. This seminar will delve into three such areas—genetically modified organisms, polymerase chain reaction, and gene patenting—where the knowledge and success of generating recombinant DNA molecules has yielded both profitable and controversial results. In between class discussions, students will engage in laboratory bench work to experience and consolidate what they learned.

**Autism and Vaccinations: Politics and Science Don’t Mix**
George Wagner (Psychology)
This seminar will critically review the controversy surrounding the question: Do vaccinations cause autism? In 1998, Andrew Wakefield published a landmark study to this effect concluding that adverse immunological reactions to the measles, mumps, rubella, vaccination sometimes result in autistic regression. Since then, the medical profession (and the media) have done much to discredit this interpretation of his data. The result was that the original paper was retracted by the journal and by other authors on the paper, and accusations of fraud have been raised. The underlying “politics” of the controversy appear to be that the medical profession is concerned that parents will resist vaccinating their children for fear of “autism” and that this, in turn, will result in a resurgence of measles, mumps, and/or rubella. This seminar will review the behavioral and neurobiological features of autism and then explore the vaccination controversy in depth, critically assessing publications allegedly refuting Wakefield’s claim. We will first distinguish two forms of autism: present at birth versus autistic regression. Next, we will examine data from animal models that clearly demonstrate that immune challenge early in life leads to behavioral deficits quite akin to “autistic regression” as originally proposed by Wakefield. After appropriate animal care training, students will participate in a laboratory study assessing autistic-like regression of developing behaviors in mouse pups following the administration of agents that alter neural development. Finally, we will review the recent U.S. Court of Federal Claims’ Vaccine Injury Compensation Program that appears to support the hypothesis that adverse reactions to vaccinations might sometimes lead to autistic regression.

**Paper-based Electronics and Art**
Aaron Mazzeo (Mechanical and Aerospace Engineering)
Paper is an ideal medium for folding (origami), cutting, embossing, casting, inking, and painting. Combine these attributes with electronic components on or within paper, and there are some interesting opportunities to build mechanical structures and add sensing, lighting, or color. In this hands-on seminar, students will have the opportunity to review state-of-the-art research in paper-based electronics, and then exercise creativity in an engineering lab to build their own electronic systems that they will design while keeping in mind aesthetics and artful creativity.
**EOF Byrne Seminars**

The School of Arts and Sciences (SAS) Educational Opportunity Fund (EOF) Program provides students with quality academic support and positive learning experiences designed to help them fully in every aspect of the college experience. The Byrne Program is pleased to offer Byrne Seminars specifically designed for incoming SAS EOF students.

**Body Talk: Telling Stories Through Words and Movement**

Carlos Decena (Latino & Hispanic Caribbean Studies) and Jeffrey Friedman (Dance)

When telling the story of a conversation you had with someone else, do you wonder about the movements of the face, the hands or the whole body that you cannot capture in words? How can you incorporate your grandmother’s nods and her slanted smiles into how you tell histories of family that have shaped who you are? This seminar challenges students to integrate their minds and bodies into telling their experience and those of others. Exploring how our bodies operate as instruments for knowing and communicating with others, this course brings us together in a collaboration to examine our bodies that you cannot capture in words? How can you incorporate your grandmother’s nods and her slanted smiles into how you tell histories of family that have shaped who you are? This seminar challenges students to integrate their minds and bodies into telling their experience and those of others. Exploring how our bodies operate as instruments for knowing and communicating with others, this course brings us together in a collaboration to examine our bodies.

**Words and Movement**

Edward Ramsamy (African Studies) and James Whitney III (Assistant Vice Chancellor, Undergraduate Academic Affairs)

The life and legacy of the esteemed Rutgers alumnus Paul Robeson embodies the idea of “global citizenship.” A towering figure in the African American struggle for human dignity and democratic rights, he connected this struggle with those of other peoples around the world, who were also fighting for political rights, cultural recognition and economic justice. For example, among many other social justice movements that he embraced, Paul Robeson pioneered the global solidarity movement against racial segregation and white supremacy in South Africa and supported and marched with various British union movements in the United Kingdom who were struggling for better working conditions. The aim of the proposed seminar is to introduce students to the life and legacy of Paul Robeson, especially with respect to how he tried to integrate “home” and “world” into his civil rights activism. The seminar has a four-fold focus: (1) to explore Paul Robeson’s formative years as a student at Rutgers and the challenges he faced as the only Black student in his graduating class; (2) to examine some of his artistic achievements as an actor on the stage and screen, especially his role in promoting African-American folk songs on the concert stages of the world; (3) to study his efforts to connect anti-fascism, anti-racism and anti-imperialism together; and (4) to examine his controversial associations with communist movements and the former Soviet Union.

**Reading the Landscape**

Jean Marie Hartman (Landscape Architecture)

How do you come to understand places? Whether you are in the city or the country, the landscape tells a story about its environment, history, and use. Through readings by authors like William Cronon, watching videos of environmental artists and designers, and observing views and compositions during walks, we will develop your landscape reading skills. This process will help you integrate information to understand a particular place in new ways. For instance, you will conduct a study of a place you are familiar with; perhaps you will begin to see the ways a land-form is shaped and how agricultural use left its mark on today’s urban forest in your neighborhood park. This kind of landscape literacy will help you see familiar places with new eyes; it also trains you to understand, interpret, and enjoy new places more readily. This class is especially appropriate for students who enjoy the out-of-doors or are interested in travel. One Saturday trip to New York City will focus on the interaction between the history of the city’s development and current political and social issues.

**The Arrow of Time: Studies of Decay, Entropy and Timekeeping**

Amit Lahi (Physics and Astronomy)

In this seminar we will investigate the concept of The Arrow Of Time by first understanding entropy. We will learn to use the Python programming language to calculate probabilities, and from that develop an understanding of entropy and the second law of thermodynamics. We will discuss the ideas of entropy and decay as they appear in literature and culture, including the hold they have in the collective imagination that leads to the rejection of quantitative metrics that show disease, war, and violence decreasing and the average human condition improving. Finally, we will divide into groups to design and construct working time measurement devices. Using commonly available materials, the groups will make devices to measure one hour as accurately as possible. No clocks allowed!

01:090:107:38 index 15153

**Paul Robeson as a Global Citizen**

*Honors College Byrne Seminar*
The Byrne Seminars Program continues to provide innovative programming through the Office of Undergraduate Academic Affairs, and this year we are pleased to announce the introduction of Byrne Seminars in conjunction with Rutgers faculty and Johnson & Johnson professionals.

For more than 120 years, Rutgers, The State University of New Jersey, and Johnson & Johnson have partnered to advance academic research, and community service endeavors. Building on this long-established relationship and legacy of leadership, these special seminars will enhance the learning experience of students from multi-disciplinary areas of study. This initiative will expand research ties, while introducing first-year students to an array of career and educational opportunities.

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On the following page, you will find these highly-anticipated seminars that will provide students with unique perspectives of faculty research and its application in a professional industry. Students will explore areas of common interest to both Rutgers and Johnson & Johnson, including global public health, health and wellness, ethics, community and leadership. In addition, students will have the opportunity to develop a mentoring relationship with both a Rutgers scholar and a corporate leader.

We invite you to begin your Rutgers experience with one of these exciting new seminars.

**FROM THE DIRECTORS**

Angela Mullis, Ph.D.
Director, Byrne Seminars
Rutgers University–New Brunswick

Nancy Mark, CPA, CMA, CCXP
Director, Health Care Compliance & Privacy
Johnson & Johnson

The Art and Science of Positive Leadership

Jasjit Ahluwalia (Rutgers School of Public Health) and Nancy Mark (Director, Health Care Compliance & Privacy, Johnson & Johnson)

Throughout history, and certainly during the history of the United States and Rutgers University, progress has been synonymous with leadership. The revolutionary understanding of leadership is that it is everywhere and in everyone’s capacity. While some may be born with a number of the attributes needed for outstanding leadership, it is well accepted, that leadership is something that can be learned and that can be studied. This seminar explores qualitative and quantitative research “on leadership,” and reviews research and theory toward the goal of empowering students to be leaders in all aspects of life, including college, career, and community. Topics include leadership in academic, corporate, and nonprofit work environments, as well as leadership styles and competencies. Relevant issues related to women and ethnic minorities will also be discussed. The course includes readings and dynamic discussion, debate, role-play scenarios, and real-world visibility and exposure to leadership with distinguished course co-instructors, and guest speakers from academic, health care sector, and corporate leadership contexts.

01:090:101:24 index 06558

Healthy Body, Healthy Mind: High Performance Training is Not Just for Athletes

Sunita Kramer (Associate Dean of Academic Affairs, Honors College) and Fikry Isaac (Vice President, Global Health Services, Johnson & Johnson)

Maximizing energy and learning how to stay mentally focused are issues of primary concern to the endurance athlete. However, learning how to maximize performance should apply to anyone who wants to function at a high level, whether a corporate executive or a first-year college student. In this seminar, we will examine successful approaches to sustained high performance that have been used both on and off the playing field. Through readings and discussions, students will learn about the molecular and genetic basis for improving fitness, including changes in metabolism, recovery patterns, sleep, and mental health. Utilizing key principles for energy management from the Johnson & Johnson Human Performance Institute, students will also have the opportunity to explore ways to maximize their personal energy, to feel physically energized, emotionally connected, and mentally focused.

01:090:101:19 index 09306

Making a Difference: Nonprofit Leadership in Sub-Saharan Africa

Ronald Quincy (School of Social Work) and Conrad Person (Senior Director, Corporate Contributions, Sub-Saharan Africa, Johnson & Johnson)

In this seminar students will work on capacity building projects with the co-instructors to support several civil society and nonprofit organizations in Kenya. Students will engage with the Mandela Washington Leadership Fellowship Alumni on their Civil Society Organization Projects in Kenya through the use of electronic media (e.g. Skype). The seminar will engage students with Johnson & Johnson leaders based both in the US and in sub-Saharan Africa about best practices in managing and leading African Civil Society Organizations. Students will take a trip to the UN to attend an international conference related to African Civil Society Organizations.

01:090:101:75 index 15511

Privacy Matters: Protecting Personal Information in the Digital Age

Craig Scott (Communication) and Lauren Turso (Manager, Privacy Compliance, Johnson & Johnson)

In the 21st century, personal information has become a form of currency. The more information we disclose to online service providers for the sake of convenience or social networking, the more value can be extracted from it. There is an indeterminable amount of uses for the data derived from our online habits and it often goes well-beyond what the initial use might appear to be. With this constant flow of personal data, and the lack of knowledge about just who has access to it, the preservation of personal privacy has become a fundamental, global debate that should not be ignored. This seminar will focus on the many uses of our personal data and analysis of our online habits. It will explore the importance and impact of concepts such as “big data,” privacy law, surveillance, cyber-vetting, network privacy, anonymity, disclosure, and privacy literacy. Only when we understand the threats to privacy and the consequences of oversharing can we take an active role in protecting our personal information.

01:090:101:25 index 06559
The “Problem of Evil” in Philosophy, Literature, and Film
Trip McCrossin (Philosophy)
What do we mean when we say of someone that they have “the patience of Job,” when we complain that “bad things happen to good people, and good things to bad,” when we admit that we are somehow consolled in our distress by the assurance that “things always work out for the best”? What such sayings, complaints, and consolations share, among other things, is that they reflect together, arguably, the ongoing legacy of the problem known as “the problem of evil.” In this seminar, we will work together to understand a basic divide that has animated modern responses to the problem, as both a theological and secular one, and to trace the legacy of this divide in certain exemplary contributions to twentieth-century literature and film.

Global Environmental Health: Rutgers’ Global Reach!
Mark Robson (Entomology; Plant Biology and Pathology)
The world uses over five billion tons of pesticides every year, and twenty percent of these chemicals are used in the U.S., largely for agriculture. What are the consequences of pesticide exposure for human health and the overall health of our planet? In this seminar, we will discuss global environmental health issues, in particular those dealing with problems such as water and air pollution, food production and safety, and infectious and occupational diseases. Professor Robson will share experiences from developing countries in Southeast Asia and West Africa. Case studies and current research will be used as illustrations.

Addiction
Mark West (Psychology)
Do people become addicted to technology? Although some students have direct or indirect experience with substance abuse, all will have experienced the lure of the iPhone, TV, web surfing, texting or playing video games. This seminar will encourage students to describe the behaviors they observe in themselves or others. We will explore the cognitive processes involved in starting, repeating or perseverating in technology related behaviors. The goal will be to discuss whether these behaviors are similar to or different from DSM-V criteria for addictive behaviors such as substance use, binge eating disorder, or gambling. We will come to understand the scientific knowledge created by clinical and preclinical researchers on addictions, including the neural underpinnings of behavioral and cognitive processes of the drug user. Ultimately, students will learn to identify warning signs in themselves or others when succumbing to self-defeating behaviors related to technology.

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FIRST-YEAR Seminars

//HUMANITIES//

Creating Music
Robert Aldridge (Music) and  
Min Kwon (Music)
What is music? How do we distinguish music from noise or sound? This seminar will be co-taught by two Rutgers professors of music, one who is a Grammy winning composer and the other a concert pianist. They will shed light on the process of composing and the process of practicing, hence bringing the black and white notes to life on stage. What is inspiration? What moves and excites us? Join us for a fascinating discussion and appreciation of what music is or what music should be. The seminar will culminate with a classical concert at Carnegie Hall and a jazz performance at Blue Note in New York City.

01:090:101:08 index 06548

Dreams of (Human) Machines
Nicola Behrmann (German)
This seminar examines the role of machines and automatons in regard to the modernist crisis of representation, the fantasy of artificial procreation, and the connection between art and life. We will investigate the way in which Friedrich Nietzsche’s typewriter influenced his writing, accompany Rainer Maria Rilke’s haiku that Braille on his visit to the Salpêtrière hospital in Paris (excerpts), read Franz Kafka’s horror story “In the Penal Colony,” travel to the Philadelphia Museum of Art to see Marcel Duchamp’s famous installation The Bride Stripped Bare by Her Bachelors, Even (The Large Glass), try to make sense of Dadaist poems and André Breton’s Surrealist concept of “automatic writing,” and watch Fritz Lang’s famous silent movie Metropolis (1927) and Ridley Scott’s Blade Runner (1982).

01:090:101:80 index 10520

Rhythm, Drumming, and Body Percussion
Robert Benford (Dance)
This studio course offers the opportunity to learn how rhythm underlies all aspects of life, and how these cycles can be translated into music and movement. You will be introduced to elementary techniques on conga and djembe drums, while learning to create and play music together in an informed way. You will learn the basic rhythmic solfege systems from Indian dance and music, and apply them to the learning of body percussion phrases. In addition, there will be an emphasis on relaxed body structure, including the use of voice and language as learning tools for rhythm. Ultimately, the class will include group creative projects in drumming and body percussion.

01:090:101:11 index 06550

Mad Men, Dexter, Gone Girl, and Scandal: Tales of Race, Gender, and Psychoanalysis in Everyday Life
Nikol Alexander-Floyd (Women’s and Gender Studies)
This seminar will explore popular culture through a psychoanalytic lens. Why does Dexter, the blood splatter analyst on the show of the same name, feel compelled to kill? Is Donald Draper, a hopeless narcissist? What drives Olivia Pope to be a Gladiator? We will talk about popular T.V. shows and movies and the unconscious conflicts and experiences that drive popular characters that we love and sometimes love to hate. This will serve as an introduction to psychoanalysis, and to film and television assessment that reveals the connection among power, race, gender, class, and sex in everyday life.

01:090:101:04 index 11755

Up and Down the Streets of the Western Metropolis
Andrea Baldi (Italian)
Perhaps the best way to get to know a city is on foot. Walking, one of our most immediate ways of being in the world, of making it “our own,” is also crucial to how we experience space. Through short stories, essays, paintings, and movies, this seminar will explore the ways in which walking is represented in Western cultures and how modern urbanites “map” the city, appropriating its spaces through their own “peripatetic metics.” Of course, we will do some walking of our own as well.

01:090:101:102 index 19156

Mussolini’s Rome: Italian Fascism and the Politics of Knowledge
T. Corey Brennan (Classical)
This course examines Fascist appropriation and misappropriation of Roman history, art, literature, architecture, and archaeology, especially in the city of Rome, but throughout the Italian peninsula and the short-lived Italian empire, with the focus on the years 1922-1943. The focus is especially on Mussolini’s casting about in the past to shape his public image, first as Julius Caesar but eventually as the 20th century’s answer to Augustus, the founder of the Roman empire. The Fascist regime’s dual emphasis on restoring ancient monuments and building new monumental complexes will receive close attention. The class will utilize an array of media to understand the main developments in the era, including small media and ephemera (postage stamps, coins, medals, postcards, school notebooks); contemporary newsreel footage (culled from the ca. 4,000 hours newly available on the Cinecittà Luce website); and unpublished material from a newly-rediscovered archival collection in Rome. No knowledge of Italian is required.

01:090:101:03 index 07683
What is Africa To Me?  
Abena Busia (English)

This seminar will focus on the different ways in which Africa is “remembered,” as legacy and metonym, as well as in the practice of daily living in unexpected ways, in the United States. A central part of this course will be a field trip to the African Burial Ground National Monument, the Nation’s earliest known African American cemetery, in official use from 1619-1794. In 1991, during the excavations in Lower Manhattan for the New Federal Building, a large burial ground containing the remains of more than four hundred 17th and 18th century Africans was unearthed. The research that subsequently followed established the profound role Africans played in the making of New York and the building of the New World. The exhumed bodies were re-interred in 2003, and this heritage site has now become a memorial to those unnamed people and testament to the history they made. We will take a guided tour of the Memorial and site. In the seminar, through reading essays such as Sheila Walker’s “Everyday Africa in New Jersey: Wonderings and Wanderings in the African Diaspora,” which discusses West and Central African Linguistic Roots of such expressions as “fris,” “dag” and “jive,” trying out the recipes in Jessica Harris’ cookbooks; listening to the music suggested by Paule Marshall’s novel Praisesong for the Widow; and examine actual specimens, we will visit a rare books library in the area as well as mechanically and digitally produced. We will explore a wider range of illustrations; and learn how texts can be hand-written, painted, or inscribed, itself as a technology that encompasses letters, drawings, graffiti, and eclecticism, folk music, and in classical masterworks.

1:09:01:101:38 index 07685

The Books that Make Us  
Marija Dalbelo (Library and Information Science)

In this seminar, we will examine the life-stories of select monuments of writing, such as Sumerian clay tablets, the original (Hokusai) manga, the Gutenberg Bible (the first major book printed with the printing press) and Carl Jung’s notebooks. We will consider their material life, the technologies necessary to produce them, and the meanings that they had for their authors for their time. How did people make these seminal works, and why? How do such important works help us make sense of our world? In what sense do these works represent revolutionary text technologies and how have they revolutionized the world of ideas? We will also think about writing itself as a technology that encompasses letters, drawings, graffiti, and illustrations; and learn how texts can be hand-written, painted, or inscribed, as well as mechanically and digitally produced. We will explore a wider context for circulation of books, texts, and reading. In order to view, handle and examine actual specimens, we will visit a rare books library in the area or New York City, and use the collections of the Zimmerli Art Museum at Rutgers.

1:09:01:101:20 index 06555

Introduction to Philosophy by way of Some Terrible, but Philosophically Interesting, Phenomena around Race, Class, and Gender  
Andrew Egan (Philosophy)

There are a lot of terrible phenomena around race, class, and gender. Looking hard at those phenomena can be helpful, obviously, in figuring out how to address them. And there are some resources in the toolkit of contemporary philosophy that are useful for getting a handle on exactly what’s going on, and what’s going wrong, in a number of those phenomena. Perhaps less obviously, it’s also true that looking hard at those phenomena can help us to gain traction on some interesting philosophical questions. We will engage in this sort of back and forth process—applying some philosophical tools to questions about difficult social issues, and then applying insights gained from thinking about the social issues back to the philosophical questions. For example, the phenomenon of implicit bias—negative attitudes about various groups that, while we explicitly disavow them, still manifest themselves in various subtle aspects of our behavior—can be helpful in drawing our attention to some difficult questions in the philosophy of mind, and perhaps the resolution of some of those questions can be helpful in shedding light on possible responses to the phenomenon of implicit bias. Another example: one way that racism, sexism, and negative attitudes around class manifest themselves is in linguistic phenomena such as racial and ethnic slurs, and the exclusion or marginalization of certain actors, perspectives, or assertions from conversations of various kinds. These phenomena draw attention to difficult and interesting questions in the philosophy of language, and perhaps careful attention to the philosophy of language can help us to better understand (and, hopefully, do something about) these problematic phenomena.

1:09:01:101:32 index 07049

Alexander the Great: History and Legend  
Thomas Figueiredo (Classical)

Few have affected history as Alexander, son of Philip of Macedon, who led an alliance of homeland Greeks. Unexpectedly, Alexander maintained his father’s pre-eminence, launching a campaign against Persia. Exceeding Philip’s goal of liberating Asian Greeks, Alexander seized the whole Persian empire. He established a Greco-Macedonian politico-cultural dominance surviving into his successors’ kingdoms and later non-Greek states. This Hellenistic civilization influenced extraordinarily subsequent art, literature, and belief systems. Rich documentation grapples with Alexander’s generality, statesmanship, and charisma. Amid debate surrounding topics as disparate as his tactics and sexuality, a remarkable interplay between history and myth-history can be discerned. Our seminar will introduce freshmen to this fascinating leader, while imparting awareness of the concepts and methodologies used to recreate the career of a major historical agent of antiquity.

1:09:01:101:37 index 19530

Musical Poetry: A Journey Through the Classical Art Song  
Barbara Gonzalez-Palmer (Music)

Since the late 18th century, classical art song has attempted to heighten our experience of poetry—an already independent art form. Some of the greatest works of music are in these magical miniatures, written by such masters as Beethoven, Schubert, Schumann, Brahms, Debussy, Barber, Copland, and countless others. Through a musical “tour” of art song, we will explore the close relationship between text and music, pianist and singer.  
1:09:01:101:29 index 11761

Print Matters: The Art, History, and Collecting of Printed Images  
Christine Giviskos (Zimmerli Art Museum)

Since the invention of printing, images printed on paper have been made as art objects, information sources, and reproductive copies. The Zimmerli Art Museum at Rutgers University boasts a significant collection of prints that illuminate aspects of art, history, and culture in Europe and the United States from the 16th century through the present day. In this class, which will take place at the Zimmerli, students will be introduced to prints as both art objects and as historical documents. In addition to learning about the history and techniques of printmaking, students will also explore aspects of studying, researching, and collecting prints. Students will have the opportunity to view prints in the museum galleries and study room, to visit the Brodsky Center printmaking studio at the Mason Gross School of the Arts, and visit the IPDA Print Fair in New York in November.

1:09:01:101:18 index 06554

Intersections and Innovations in Music: Classical and Popular Crossings Over  
Maureen Hurd (Music)

The worlds of classical and popular music are often perceived to exist separately, but throughout history and especially in our current global society, folk and popular styles have influenced and are influencing classical music, and classical music has continued and continues to spark creativity among popular musicians. This seminar will explore these interactions—sometimes revolutionary and generally innovative—in third stream, eclecticism, folk music, and in classical masterworks.

1:09:01:101:17 index 06553

Literature and the 21st-Century Body  
Stacy Klein (English)

The 21st century brings with it unprecedented challenges and opportunities for the human body: from the melodic rise in cosmetic and transplant surgery, to charged debates over new reproductive technologies and genetic engineering, to the proliferation of trans-national human trafficking, to increased reliance on prosthetics and mechanical bodies. How can literature help us to make sense of new social and scientific developments that have, quite literally, changed the shape of the human body? How might poetry and fiction, from both the past and the present, enable us to cope more gracefully with new body technologies and to find healthier relationships with our own 21st century bodies as well as those of others? This seminar will focus on poems, short stories, and imaginative essays that discuss the human body; authors may include Shakespeare, Marvell, Whitman, Andre Dubus, Nancy Macs, Lucille Clifton, Sylvia Plath, Mark Strand, Mark Doty, and Rita Dove.

1:09:01:101:67 index 10533

The Politics of Change: Franklin D. Roosevelt and the American New Deal  
Norman Markowitz (History)

When Barack Obama was elected to the presidency in the midst of a stock market crash and fears of a great depression, some Americans hoped and others feared that he would launch a “New New Deal.” Why was this so? During the Great Depression and WWII, the administration of Franklin D. Roosevelt established Social Security, Unemployment Insurance, minimum wages, the forty hour week, the right of workers to form trade unions and bargain collectively, along with the regulation of banking and Wall Street, the most far-reaching changes in the role of government in U.S. history to that time. We will examine how these changes, considered impossible by most in 1930, became policy by 1935. We will study the role of and constraints on presidential leadership, formal political parties, and the significance of mass organizations and interest groups in the struggles that led to the formation of the bipartisan New Deal Coalition and its rival in all areas of American economy, society, and culture, the bipartisan conservative coalition. Through the use of selected secondary sources, primary documents, and audio and video clips of the period, we will study the politics of change during the New Deal era and its lessons and legacies for today.

1:09:01:101:30 index 16296
Unmapping America Through Native American Narratives and Film
Angela Mullis (Director, Byrne Seminars)
Since the beginning of the Native American Renaissance in the 1960s, Native American writers have been addressing the continued effects of Indian Removal. Literary representations of displacement often portray alienation, resistance, survival, mixed identity, and individual and communal isolationism. These concepts are essential to understanding the notion of place and identity that are interlinked for many Native Americans. In this course, we will complicate our understanding of “home” and what this means for Indigenous peoples throughout the United States. We will explore diverse tribal and national narratives to trace the ways in which tribal affiliation shapes the representation of cultural and national identities. Seminar includes a field trip to the National Museum of the American Indian in New York.
01:090:101:34 index 11812

Our Threatened Planet: Ecology in Film
Fatima Naqvi (German)
In this seminar, we will view several documentary films on the threatened state of the earth’s environment. The subject was popularized by Al Gore’s An Inconvenient Truth (part of which will be included in the course), but we will focus on three Austrian films released in 2004/2005. What is the unique perspective of artists who come from a small European country that is very concerned with environmental issues? We will read blogs and magazine articles that discuss the interplay between reality and the images in these films. We will also compare American versus European narratives of environmental damage, in relation to their respective political and economic circumstances.
01:090:101:32 index 06560

Speech to Song and Everything in Between: The Versatility of the Human Voice
Judith Nicosia (Music)
In this seminar students will experience Voice Vista/Madde software to see and hear their individual voiceprints in speech and song in real time. Our discussions will involve the differences between spoken and sung use of the human voice in many different cultures, what characteristics make each voice unique, and how those characteristics are employed in all types of vocal music. During the course, we will also touch on poetry, text setting, and vocal health.
01:090:101:34 index 13255

Looking East: A Different Way of Learning Dance, Language, Traditional Arts and Cultures Through Movement
Paul Ocampo (Dance) and Chien-Ying Wang (Dance)
This course will investigate various dances, traditional arts and culture of Taiwan, the Philippines, and neighboring countries. Through the language of dance, students will learn traditional arts and cultures using practices and modality that are fun, interactive and informative. This seminar is designed for students who want to expand their understanding of dance as an emblem of cultural identity and an expression of social order. Along with the practice of dance, we will experience how to prepare traditional foods associated with respective festivals. The food serves as a conduit for a holistic experience to deeper comprehension of Asian cultural arts and heritage. This seminar will include a field trip to New York City.
01:090:101:56 index 13378

From the Bronx to the Supreme Court: My Beloved World, a memoir by Justice Sonia Sotomayor
Damaris Otero-Torres (Spanish and Portuguese)
In My Beloved World (2013), Justice Sonia Sotomayor offers a candid reflection of her experiences as the daughter of Puerto Rican immigrants in the South Bronx. In studying the genre of the memoir, this seminar provides a critical and literary platform for discussing the convergence of the personal and the political. What are the most compelling events of Justice Sotomayor’s life? Do these experiences matter for a deeper and fuller understanding of the law in the highest court of the United States? This seminar will closely examine how Justice Sotomayor’s narrative leads her readers into the complex landscape of gender and social inequality, academic privilege, minority cultures, cultural identity, corporate politics, political activism, affirmative action, civil rights, language, literacy, and poverty, among others.
01:090:101:54 index 06570

First Nights of Musical Performance
Nancy Rao (Music)
Making music is exciting for everyone involved, especially the first performance of a work. This seminar will go behind the scenes and explore the making and reception of the first performance of several works—Handel’s Messiah, Beethoven’s Ninth Symphony, Stravinsky’s Rite of Spring—that have stood the test of time and come accompanied by a great deal of historical and critical baggage. Composers create their work for people. Aware of the particular audience’s taste, values and behavior, they know the expectations, but are not limited by them. How do those involved—the composers and performers—expect it to sound? Does it sound that way on the first performance? Why and why not? What experience does the audience bring to the first performance? And what lasting influences do these receptions have?
01:090:101:47 index 06567
Faul7's Bargain with the Devil: Knowing It All, Losing It All
Nicholas Rennie (German)
Faul7, in Johann Wolfgang von Goethe's famous play, is every university student's worst nightmare. Frustrated that his multiple academic degrees have left him knowing nothing of value, the aging scholar goes rogue: he gives up standard research for magic, he flees his study with the devil to go out and party, he uses his status to help him impress and seduce a much younger woman, he heads off on a world tour without regard to those he encounters or has left behind, and he becomes a capricious and dangerous tyrant. How, then, did the Faul7 legend become the quintessential myth of modernity? What does Faul7 experience and learn by selling his soul? How is he changed, and how does he transform his world? Is this story a celebration or a condemnation of the modern age of discovery—research, teaching, learning and self-exploration?
01:090:101:34 Index 13264

Julia Ritter (Dance)
This seminar will explore methods and techniques of improvisation and play as applied to the creation of dance theater. Students who take this seminar should be open to immersing their Playful selves in creative games, experiments, and improvisations that use the body and the voice. This course is for anyone who loves to move and challenge themselves to solve problems with creative solutions. We will explore the movement and theoretical potential of the body using traditional and experimental techniques of dance improvisation. The seminar includes a field trip to New York City for a performance.
01:090:101:76 Index 11771

Information Inequality
Lily Todorinova (Rutgers Libraries)
In this course, we will develop an understanding of information as a commodity, with a richly contested value for both individuals and societies. This course will engage with different types of information inequalities, such as those between economically rich/poor societies, as well as situations where information is restricted or censored. From the level of societies, information is politically and economically charged. The ubiquity of information technology in the West makes it easy to overlook the persistence of vast areas of information poverty in the world. This global digital divide of access to technology and information literacy leads to threat human rights, development goals, and political stability. Information also has a personal and private value. We will examine case studies of how governments and corporations quantify information and what this means about our own information “worth.” In addition to class discussions, we will develop information literacy skills and use scholarly resources available through the Rutgers University Library to explore these topics. The course will culminate in a research proposal on an issue related to information inequality and its effects on local and global communities.
01:090:101:52 Index 06569

A Journey to Satan: Dante's Inferno
Alessandro Vettori (Italian)
How better to take revenge against your enemies than to write a story about your trip to see Lucifer and place them in hell? The first part of Dante's Divine Comedy is about strong emotions and the ferocity of being human—love, hate, anger, compassion, pity, violence, sodomy, fraud and cannibalism—as much as it is about philosophy, theology, and poetry. In this seminar we will explore Dante's masterpiece and its influence on modern literature.
01:090:101:AE Index 14041

Ro9kin' Roots, Global Reach: Telling the Story of Jersey's Popular Music
Jonathan Sauceda (Rutgers Libraries)
Frank Sinatra, Whitney Houston, and Bruce Springsteen are just a few of the artists who have called Jersey home, but for centuries this state has been fertile ground for musical creativity. In this course we will work with Rutgers' incredible, rare, and unique New Jersey sheet music collection, making the materials freely accessible and comprehensible around the globe. Students will learn about the popular music culture of the 1860s and early 1900s, as well as the meaning of and ideas behind open access. Each student will choose a piece of sheet music, digitize it, and create a finding aid that includes an explanatory essay, which will place the item in its social, historical, and cultural context. The finding aids will be edited and published online, providing students a clear outcome and showing them that their research can have real world implications. The class will include a field trip to the largest jazz archive in the world, the Institute for Jazz Studies in Newark.
01:090:101:23 Index 13262

Knowing, Doing, and Innovating Design
Mary Chayko (Communication)
In this course, we focus on three questions drawn from the instructor's research and personal work: (1) Selfies and digital culture: How do selfies “speak” as cultural objects, and how do they compare to other forms of communication and art? How is knowledge produced and shared in the process of communicating via selfies? How are power differentials expressed and experienced as selfies are taken, shared, and given meaning in a digital culture? The seminar includes two visits to the Zimmerli Art Museum.
01:090:101:09 Index 06549

Rockin' Roots, Global Reach: Telling the Story of Jersey's Popular Music
Jonathan Sauceda (Rutgers Libraries)
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01:090:101:23 Index 13262

Yankee Stadium
Teresa Collins (Thomas A. Edison Papers)
Why did the Stadium cross the road? In this seminar we develop multiple perspectives on the history of Yankee Stadium and its epic journey from "The House that Ruth Built" to its current home in the Bronx, New York. We will observe and analyze a number of related themes and issues, including relationships between public finance, private enterprise, and urban development. The flexible, situational character of change and tradition will be examined as well. Students will explore potential topics and methods for their own research development.
01:090:101:34 Index 06551

The Secrets (and Big Business) of Search Engines
Melissa Gasparotto (Rutgers Libraries)
"Googling" has become synonymous with searching, and those who google are often presented with thousands to millions of results. Yet research shows that people almost never go beyond the first page or two. Appearing on the first page of search engine results has become big business in the 21st century, yet users are often unaware that what they see when they search (and what they do not see) is influenced by factors like money. What makes some results appear higher in the ranking? How do companies stay on top of search engines’ trade secret algorithms to alter the way their websites are found? More importantly, what are searchers not seeing? This seminar explores the factors and stakeholders of web searching. Students will learn to be savvy finders and consumers of information, with a clearer sense of who is watching them while they search, and the motivations and practices of the companies that provide the supposedly free services on which we have become so dependent.
01:090:101:31 Index 06562

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01:090:101:31 Index 06562

Moral and Ethical Dilemmas in Emergency Preparedness, Disaster Response and Homeland Security
John Farmer, Jr (Rutgers School of Law; Special Counsel), Clifton Lacy (Director, Rutgers Institute for Emergency Preparedness and Homeland Security), and Ava Majlesi (Associate Director, Rutgers Institute for Emergency Preparedness and Homeland Security)
Each week, this seminar will explore different moral/ethical dilemmas in the context of emergency preparedness, disaster response, and homeland security. The first session will include an introduction to the accountability structure for emergency preparedness and disaster response at the federal, state and local levels. Subsequent sessions will be topic specific, and include the following areas: (1) active shooter/mass casualty scenarios; (2) violent extremism and bias crimes against faith-based communities; (3) explosive and incendiary incidents; (4) biological threats; (5) chemical and radiological threats; (6) environmental disasters; (7) criminal/suspect profiling; (8) use of enhanced interrogation techniques by the United States; (9) mandatory quarantine of individuals; (10) forced evacuations; and (10) domestic intelligence collection, including cybercrime and cyberterrorism.
01:090:101:39 Index 11766

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Alessandro Vettori (Italian)
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01:090:101:AE Index 14041

Selfies and Digital Culture
Mary Chayko (Communication)
"Selfies," or photographs that an individual (or a group) takes of themselves that can be privately held, transferred to others, or displayed via social networks, are becoming a popular and culturally significant way that knowledge is produced and shared in modern digital cultures. In this course, we focus on three questions drawn from the instructor’s research and personal work: (1) Selfies and digital culture: How do selfies "speak" as cultural objects, and how do they compare to other forms of communication and art? How is knowledge produced and shared in the process of communicating via selfies? How are power differentials expressed and experienced as selfies are taken, shared, and given meaning in a digital culture? The seminar includes two visits to the Zimmerli Art Museum.
01:090:101:09 Index 06549

Knowing, Doing, and Innovating Design
Mark Aakhus (Communication) and Ingrid Erickson (Library and Information Science)
Do we make technologies or do technologies make us? For instance, algorithms make shopping more convenient and search more effective, and yet they also direct our options and shape what we experience. With algorithms personalizing what we see, who is in charge? The paradox of personalization is just one example of the challenge of living in "design society"—the better we get at shaping our world through technology, the more we have to confront the consequences of what we have created. As individuals, community members, citizens, and workers, we are all designers of the world around us. Have you really come to terms with that fact? This course will help you embrace the possibilities and responsibilities of living in design society by helping you develop your design imagination.
01:090:101:01 Index 06546
Let the Games Begin: The Socio-Economic Effects of Mega-Events in Sports

Michael Lahr (Planning and Public Policy)

Why do countries and cities compete so fiercely to host major sports competitions? Do they benefit substantially from such events from an economic perspective? Or are the events more a matter of cultural pride or something else? How do experts measure the extent of the economic benefits countries and cities realize? In this seminar, students will reflect on these questions as we examine recent sporting events as case studies, including the recent 2012 Summer Olympics in London, the 2013 FIFA games, the 2014 World Cup event, the Sochi 2014 Winter Olympics, as well as other major sports events.

01:090:101:35 index 13266

Diversity and the Politics of Higher Education

Catherine Lugg

(Education Theory, Policy, and Administration)

This seminar will explore the issues involved with “Diversity and the Politics of Higher Education.” In particular, we will address diversity (racial, ethnic, gender, class, language, religious, sexual identity, and disability) and how these issues of diversity shape the politics of higher education and “who gets what, when and how” (Laswell, 1936). For example, Affirmative Action remains a topic of blistering political attack, yet there is striking political silence on the advantages elite whites receive in college admissions thanks to the “legacy system.” This course will take on particular relevance as students experience the class in the midst of a Presidential election. At the close of the class, students will have the opportunity to speak with leading Rutgers professors and administrators who are first-generation college attendees and their own collegiate experiences.

01:090:101:18 index 11776

You and the 2016 Elections—What to Watch, How to Watch, and How to Participate

Ruth Mandel (Political Science)

On November 8, 2016, voters will finally decide who will occupy the White House and who will serve in the House and Senate beginning in January 2017. Many of you will be first-time voters in this historic election. In this seminar, we will talk about the politics of this very long election season and try to understand the dynamics on the ground. We will invite guest speakers from various programs inside the Eagleton Institute of Politics and snag a variety of visitors from the heat of campaigns to tell us what to watch, how to watch it, and how to participate in ways large and small. What are the stakes about? Why are some states seemingly more important than others in a presidential year? What issues will have the biggest impact on the 2016 elections? What is opposition research? What is the impact of negative advertising? How can we tell a good poll from a bad one? Who is donating money to the candidates? How is money raised and spent in presidential elections? Do candidate debates matter? What is the role and impact of today’s media in our national elections? Are some groups of voters more important than others? What is the “gender gap”? Do endorsements by newspapers, political leaders, labor unions, musicians, and TV/Hollywood celebrities matter? What about your vote—does it matter?

01:090:101:16 index 15275

It’s Not Fair!?: Complaining in Everyday Conversation

Jenny Mandelbaum (Communication) and Galina Bolden (Communication)

This seminar examines complaints in everyday conversations. Complaining is a pervasive human activity that can have devastating or positive consequences. In this class students will examine complaints that occur in audio and video recordings of naturally-occurring conversations. Our goal is to determine how we produce and react to complaints in our personal and professional lives. We consider the implications and consequences of complaining in a variety of contexts, from dinner table conversations to customer service calls. We also examine how complaints affect and are affected by our relationships.

01:090:101:22 index 06557

How Democratic is the U.S. Constitution?

Lisa Miller (Political Science)

Americans generally revere their constitution, an 18th century document that has only been substantially revised a handful of times in almost two and a half centuries. When confronted with the counter-democratic features of the US Constitution—such as malapportionment in the Senate, or judicial supremacy—many, perhaps most, Americans respond by pointing out that such features help guard against the dangers of “tyranny of the majority,” a risk that worried such thinkers as James Madison and Alexis de Tocqueville. How real is this danger? Should popular majorities be constrained at all in a democratic political system? If so, under what conditions and how? What does the US Constitution say about the legitimacy of the political system with respect to representing the preferences of the political majority? This course will take a close look at the origins and consequences of the US Constitution and how it structures democratic politics today. The course also provides some comparative perspective by drawing on the political institutional frameworks of other countries. We will discuss the meaning of elections and majority rule, as well as the conditions, if any, under which majorities should be overridden by the interests of a political minority. The course involves short weekly readings (including the US Constitution), class discussion, and a micro-research project.

01:090:101:42 index 10473

Energy in History and Culture

David Hughes (Anthropology)

Energy is everywhere. Unfortunately, the modern obsession with fuel and its uses has caused us to lose sight of this ubiquity and plenitude. This course will follow energy—and the consciousness of energy—across the landscape and through history. Breezes, for example, powered transportation long before wind turbines began generating electricity. In crossing oceans, sustainability began with sail. Selected from major texts, modest readings will range from Rick Bass’s Oil Notes to Richard Wraningham’s Catching Fire: How Cooking Made Us Human. Ultimately, students will be encouraged to appropriate energy in everything from growing plants to clotheslines—and to insist that broader society do the same.

01:090:101:60 index 09314

U.S. Banks in Crisis: Lessons from the Past, Questions for the Future

Joseph Hughes (Economics)

Before the current banking crisis, the U.S. last experienced a financial upheaval in the latter half of the 1980s and early 1990s in the savings and loan and banking sectors. Failures of financial institutions surged in the late 1980s and again began to rise dramatically in 2008. Government took strong action to address the crisis in each period, and in both instances has received blistering criticism for its attempts to bail out the largest banks. We will address questions of “moral hazard” in the financial system, and the degree to which government action creates and/or is constrained by moral hazard. In this seminar, you will have the opportunity to do original research with the professor by working directly with bank data. This is a rare chance to gain a hands-on understanding of modern banking, bank crises, and what constitutes a sound financial institution.

01:090:101:36 index 06565

Criminal Court War Stories

Milton Heumann (Political Science)

This seminar begins with the reading of an engaging journalistic account of the world of criminal justice in a Chicago courthouse. Next, we will discuss the general context of criminal-justice processing in the U.S. And finally, four or five leading criminal attorneys will visit our class and share the one case that stands out in each of their legal careers. Their “war stories” will include detailed descriptions of these cases, including an analysis of the key decision points made along the way. Though class discussion, students will develop their own considered views of the final results of each case.

01:090:101:33 index 06565

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01:090:101:42 index 10473

Energy in History and Culture

David Hughes (Anthropology)

Energy is everywhere. Unfortunately, the modern obsession with fuel and its uses has caused us to lose sight of this ubiquity and plenitude. This course will follow energy—and the consciousness of energy—across the landscape and through history. Breezes, for example, powered transportation long before wind turbines began generating electricity. In crossing oceans, sustainability began with sail. Selected from major texts, modest readings will range from Rick Bass’s Oil Notes to Richard Wraningham’s Catching Fire: How Cooking Made Us Human. Ultimately, students will be encouraged to appropriate energy in everything from growing plants to clotheslines—and to insist that broader society do the same.

01:090:101:60 index 09314

U.S. Banks in Crisis: Lessons from the Past, Questions for the Future

Joseph Hughes (Economics)

Before the current banking crisis, the U.S. last experienced a financial upheaval in the latter half of the 1980s and early 1990s in the savings and loan and banking sectors. Failures of financial institutions surged in the late 1980s and again began to rise dramatically in 2008. Government took strong action to address the crisis in each period, and in both instances has received blistering criticism for its attempts to bail out the largest banks. We will address questions of “moral hazard” in the financial system, and the degree to which government action creates and/or is constrained by moral hazard. In this seminar, you will have the opportunity to do original research with the professor by working directly with bank data. This is a rare chance to gain a hands-on understanding of modern banking, bank crises, and what constitutes a sound financial institution.

01:090:101:36 index 06565
Urban Landscapes and Democracy
Holly Grace Nelson (Landscape Architecture) and Frank Gallagher (Landscape Architecture)

How has the design of parks served to increase democracy while characterizing livable cities, and incorporate environmental sustainability, new forms of mobility, mixed use green buildings, vertical gardens, and new public plazas. The politics and financing of implementation, and mental and physical health will be discussed. During the final session of the seminar, participants will be asked to present their visions for cities of the future.

01:090:101:97 Index 12130

Collaboration for Learning and Performance
Angela O’Donnell (Education Psychology)

This course will introduce you to collaborative and cooperative learning. We will explore ways to create successful learning and work teams. The content of the course is intended to provide some practical help to people who wish to use cooperative and collaborative learning in their classrooms or in other situations. We will explore what it means to be collaborative or cooperative and what impediments there might be. The primary focus of the course is on understanding why one might use cooperation or collaboration by examining underlying theory that might inform practical choices. The course will explore the journey towards a cooperative spirit and the outcomes that can result.

01:090:101:68 Index 11770

Distorted Knowledge: A Cultural Investigation of Disinformation
Alexander Pichugin (German Language and Culture Studies)

A famous French saying declares: “Speech was given to man to conceal his thoughts.” Indeed, language has been used since antiquity as much to distort knowledge and misrepresent the reality as it was to create and disseminate knowledge. This seminar invites students to explore the role of language in the distortion of knowledge and the creation of false knowledge as a cultural phenomenon. We will look at concepts such as lies, disinformation, misinformation, and misrepresentation in different historic periods and in different contexts, with different implications. As theoretical foundations for the course, we will explore epistemology as a branch of philosophy dealing with acquiring knowledge, the concept of truth, as well as the ethics of lying. Students will gain insights into the ideas, trends, and discourses that shaped the modern discourse around the distortion of knowledge.

01:090:101:74 Index 13523

Closing the Gap: Women in Science, Technology, Engineering, and Mathematics
Laura Pulumbo (Rutgers Libraries) and Connie Wu (Rutgers Libraries)

Women have been historically underrepresented in the fields of science, technology, engineering, and math (STEM). Although women today are in leadership positions in STEM professions around the world, a gender gap still persists. This seminar will discuss the various reasons for the existence of this ongoing gender gap, and look at the sometimes little known contributions to STEM made by women in the past and present. We will also explore career opportunities in STEM, hear from female professionals working in these fields, and take field trips to University labs to meet with female scientists. This seminar will be of interest to students in STEM fields, history, journalism, communication, women’s studies, and business.

01:090:101:14 Index 13268

Media in the Digital Age
John Pavlik (Journalism and Media Studies)

Emerging communication technologies have the power to affect everything from personal relationships to presidential races to the success of a new restaurant. In this course, we will focus on understanding the changing nature and impact of digital technology on media and society, including social media, and their consequences, especially implications for civility, democracy, journalism, and beyond.

01:090:101:16 Index 13261

Understanding the Planning and Redesign of Healthy Cities in the Visual Age
Anton Nelessen (Urban Planning and Design)

What people want or think they want is conditioned by their past, their intuition, imagination and ambition. What people want for their future is a critical directive for politics. Visual understanding will play a critical role in the planning, design, and implementation of places and spaces that are both functional and aesthetically pleasing. This seminar will introduce participants to a visual preference process and ask each participant to help reimagine what cities and regions of the 21st century could look and feel like. We will study a range of proposals and plans from cities worldwide that characterize livable cities, and incorporate environmental sustainability, new forms of mobility, mixed use green buildings, vertical gardens, and new public plazas. The politics and financing of implementation, and mental and physical health will be discussed. During the final session of the seminar, participants will be asked to present their visions for cities of the future.

01:090:101:05 Index 19465

Cold War Politics and Policy Through Film and Novels
Hal Salzman (Public Policy)

Popular culture plays an important role in our understanding of global conflict and policy, perhaps most dramatically during the Cold War period. And the Cold War legacy still shapes current policy and politics. We will examine how popular films, movies, art, and novels portrayed the Cold War period and the relationship between the Soviet Union and the United States and current implications. Through iconic films exploring the cold war period, from the atomic bomb and Mutually Assured Destruction, to espionage to wars, and ending with the collapse of the Soviet block, we will explore key post-war policy issues and areas of the globe: the U.S., Eastern Europe, Latin America, and Asia. We will also visit the Zimmerli Art Museum for a tour of their world-renowned collection of nonconformist Soviet art, led by the exhibit’s curator.

01:090:101:51 Index 10531

00:00
Biomorality and the Politics of Bodies and Identities in American Culture
Mark Schuster (Dean of Student, Rutgers–New Brunswick)
The American body has been transformed over time physically, politically, medically, socially and culturally. The body and its negotiated identities are covered, “passed” and “performed” through the lens of gender, sexuality, race, socioeconomic class, ability, politics and public health. Film, social media, fashion, art, music, sport, written word, and pop culture will be sites to critically explore spaces of the body politic. Body fascism and fashion; bodies at war; falling bodies (figure skating, gymnastics, high wire and circus acts); smashing and injured bodies (NASCAR, football, soccer and other collision sports) and reassembled bodies (prosthetics, bioengineered, and enhancements for aging bodies) will be interrogated in the context of “healthy” and “unhealthy” bodies. The use and impact of technology, robotics, and fantasy will be examined from playing with Barbie dolls and action figures to intersecting identities such as athletics, geeks, Marvel comics, Comic Con, Trekkies and science fiction.

01:090:101:82 index 11773

Truths and Misconceptions About Immigrants and Immigration Law
Nina Siulc (Anthropology and Criminal Justice)
In the lead-up to this year’s presidential elections, candidates have made many claims about immigrants and their relationship to crime, immigration’s impact on U.S. society, and immigration law more broadly. These claims are not based in reality and are contradicted by social scientific research on immigration. As immigration continues to occupy a central place in public debates, this seminar introduces students to the realities of immigration and its place in U.S. society and explores why U.S. policy makers continue to ignore what is known about the right way to proceed with changes to our immigration laws.

01:090:101:71 index 10534

Visualizing Data to Tell a Story
Anselm Spoerri (Communication)
Students will learn about the principles and techniques necessary to tell a story using data visualization tools. They will analyze examples of successful visual data stories and learn to create effective visualizations using tools such as Google Motion Charts and Tableau. Students will work in teams to collect and prepare a rich data set that can be visualized as an interactive and engaging data story.

01:090:101:87 index 11777

Experiencing National Parks and Parklands
David Tulloch (Land Rape Architects)
From the Grand Canyon to Acadia to the D.R. Tortugas, National Parks and Parklands are message wonderlands. This class will explore ways that National Parks (focusing primarily on those in the US) communicate messages to visitors. Published materials, such as the impressively consistent NPS brochures used at every park, and carefully designed signs provide an overt system of communication. Designers have also employed precisely aligned roads and buildings rich in symbolism to communicate with visitors at a different level. Finally, the very acts of inclusion (and exclusion) of different properties from the National Park system are meant to send an intentional message about the country as a whole.

11:090:101:15 index 11089

Social Networks and Society
Matthew Weber (Communication) and Marya Doerfel (Communication)
How many “friends” do you have? Millions of people use social networking websites, such as Facebook or Twitter, nearly every day. Even before the internet, the way we communicated with friends, family, and colleagues created “networks” that connected us with one another, but also produced limiting social boundaries. Simply put, as long as people communicate with each other, social networks exist, with both expansive and constraining effects. This seminar introduces you to how scholars study social networks and use them to make sense of society. We will examine how our forms of communication affect our opportunities to achieve our goals and to manage our relationships. We will also look at how our communication builds up into large entities—organizations. In all, we will explore how our social networks help to create the fabric of society.

01:090:101:AF index 14190

From Nuns to “Nones”: Religion and American Politics
Joseph Williams (Religious) and Andrew Murphy (Political Science)
Since the earliest days of colonial settlement, American society has always been marked by extraordinary religious diversity. Americans in the early 20th century find themselves at a pivotal cultural moment when, we might say, they struggle with the “religion question” and deal with “conventional wisdom” about the nation and its history seemingly increasingly disconnected from reality. “On the ground.” Evidence of this disconnect is all around. What was once called the “Protestant mainline” continues to shrink in numbers and cultural influence. A small but growing American Muslim community struggles for acceptance into the American mainstream. Lawsuits over the Obama health care legislation’s “contraception mandate” pit a coalition of religious groups against the federal government; a case that will likely be decided by the Supreme Court in its upcoming session. Even the evangelical movement, which powerfully re-entered American politics during the 1970s and 1980s, has undergone generational turnover and struggles to connect with a new generation of American youth. And perhaps most remarkably, the fastest-rising religious demographic in most public opinion surveys is “none.” This seminar will explore some of these profound dislocations, and Americans’ various reactions to them. How have some Americans attempted to reassert American Christianity or some variant thereof as fundamental to what it means to be American? How have other Americans embraced diversity and articulated multiculturalism as the foundation of what it means to be an American? How do some navigate issues of religious identity and national identity by simultaneously allowing space for both common values and deep diversity on the ground?

01:090:101:90 index 11808

American College Experiences for International Students
Dake Zhang (Education Psychology)
In what ways is the college experience for international students the same as American students? In what ways is the college experience in the United States different from the experience, if you studied in your home country? What do you expect from your college experience here and how do you look at the challenges that you will face? In this course, we will share our personal experiences and use statistical research results to recognize how culture, language, family and educational experiences prior to college can affect our college experience, as well as how our college experience may influence our academic achievement, social well-being, and long-term career development.

01:090:101:89 index 15288

The Economics of Aging
Karen Zurlo (School of Social Work)
This seminar will explore issues that are relevant to the economics of aging. The Great Recession had an impact on families throughout the US, some more than others. Unfortunately, many adults who were nearing retirement or in retirement experienced a double whammy: loss of income and equity, and less time to make up for those losses. This seminar is organized around literature that informs students about retirement and the importance of any early start in the planning process. Students will be educated about topics related to well-being in old age, which include: saving, pension plans, the design and viability of Social Security and Medicare, Medicaid, long-term care, inheritance, and psychosocial supports. We will focus on the “construction of retirement” and the role of pension income and health in old age.

01:090:101:73 index 13258
Earthquake Resistant Structures: Exploring Innovative Structural Materials
Perumalsamy Balaguru
(Chemical and Environmental Engineering) and
Husam Najm
(Chemical and Environmental Engineering)
Are you intrigued by earthquakes? Are you curious about learning why some buildings collapse during an earthquake while others don’t? In this seminar we will learn about earthquakes and earthquake engineering, their history, their effect on buildings and bridges and on human life. We will explore the basics of structural engineering; structural materials that can best resist earthquake shaking, and what factors contribute to a safe design of buildings in seismic zones. This seminar will include two activities: 1) designing and constructing a 5-story building structure made of balsa wood to resist ground shaking. The structure will be about 5 feet high and will be placed on a 18 inches x 18 inches shaker that will shake the structure simulating an earthquake event; 2) evaluating new innovative structural materials by fabricating plates made of mortar and hybrid steel fibers (6mm/30mm) to get the maximum strength. Students will use four types of fibers and try different proportions to obtain maximum strength.
01:090:101:98 index 12209

The Doctor Is In: Malevolent and Magnificent Microbes
Joan Bennett
(Plant Biology and Pathology)
Microbes are organism too small to be seen by the naked eye. The best-known microbes cause diseases, but most microbial species are an essential and beneficial part of the living world. This seminar will explore the many roles of microbes: in food such as bread and yogurt, for beverage fermentations like wine and beer, as sources of biologically active chemical compounds including penicillin and hallucinogens, and in processes such as bio-deterioration and sewage treatment. Students will also examine microbial diseases in human history, including plagues, syphilis, and tuberculosis.
11:090:101:02 index 07684

Euler, Godel, Cantor and Gauss: The Cool Math You Never Learned in School
Gyan Bhanot
(Molecular Biology and Biochemistry; Physics)
Many of the greatest results in mathematics are easy to explain and the theorems they are based on are easy to prove. Unfortunately, most high school and college math courses do not teach them. In this seminar, you will learn about some of the most amazing of these ideas and results, from Cantor’s calculus of infinities to Euler’s proof that there are only five perfect solids to Godel’s incompleteness theorem. The topics will introduce ideas from diverse areas of mathematics and the way they can be applied to solve problems of practical importance, such as how properties of prime numbers are used in encryption, the connection between graph theory and the four color problem, the theory of games and the emergence of cooperation, etc. Topics will be chosen from Topology, Logic, Number Theory, Game Theory and Analysis. Each lecture will be self contained and accessible to anyone who can add, subtract, divide and multiply.
01:090:101:45 index 07686

High-Tech Sustainability: Food for Thought
A.J. Both
(Environmental Science)
We all need (and love) to eat. But do you ever stop and think: how is your food produced and where does it come from? How can we maintain a safe and year-round supply? In this course, we will look at ways in which we can use technology to create more sustainable systems of agriculture. In particular, we will investigate the challenges and opportunities associated with greenhouse production. Students will be exposed to greenhouse crop production, review and discuss the necessary inputs required for greenhouse production, complete a writing assignment and make their own presentation discussing a topic related to greenhouse production.
11:090:101:01 index 07086

Eliminating Cancer: Novel Targets and Therapeutic Approaches
Sunita Chaudhary
(Rutgers Cancer Institute of New Jersey)
In this seminar we learn how the most recent discoveries through cancer research are being translated into cutting edge treatments for cancer patients. New approaches utilizing computer-assisted diagnostics, medical imaging and statistical pattern recognition allow for a more accurate diagnosis of a range of malignancies. Comprehensive genomic profiling of tumors through next-generation sequencing technologies offers the promise of personalized cancer therapy with targeted drugs. We will discuss the innovative immunotherapy approaches that are being utilized to harness the immune system in the fight against cancer and translational clinical trials that are being tested to study novel drugs in patients.
01:090:101:12 index 11759

The Ever Changing World of Pediatrics
Dalya Cheftiz
(RWJ–Pediatrics)
Join us as we explore pediatric medicine, its rewards and challenges, and its unique physiology and pathology. Through lectures and discussions, you will learn about what makes children healthy and ill from the vantage point of various pediatric disciplines and subspecialties: cardiology, emergency medicine, general pediatrics, neurology, and rheumatology. Come and learn about new technologies and innovations as well as the tried and true medical and scientific knowledge used to treat children. Understand why children are at the same time the most vulnerable and resilient humans. This seminar will be team taught by a number of participating doctors at RWJ, including Dalya Cheftiz M.D. General Pediatrics, Joseph Gaffrey M.D. Pediatric Cardiology, Nandini Moorthy M.D. Pediatric Rheumatology, and other pediatric subspecialists.
01:090:101:35 index 06564

Exploring the Human Past: An Odyssey in Time, Space, and Evolution
Craig Feibel
(Anthropology)
This course will explore the record of human prehistory through the lenses of scientists and explorers. A central theme in our approach is for each class to transcend time, matching prehistory, history, and modern-day scientific investigations. Working from our own research in the West Turkana Archaeological Project (Keny), we will link this to an historical perspective of research by luminaries including Louis and Mary Leakey, F. Clark Howell, and Glynn Isaac. Modern-day and historical investigations will be further linked by their shared theme of exploration, as faraas back into the wild African savanna from which our ancestors emerged.
01:090:101:15 index 06552

The New Theory of Human Memory
Arnold Glass
(Psychology)
In this century, there has been a revolution in our understanding of what human memory is and how neural processes work. We will explore five classic experiments that transformed the description of memory from a passive recording device to an active system that is constantly being transformed by new information. These include an experiment that reveals a surprising discontinuity between faces that are recognized and faces that are not recognized and an experiment demonstrating how easy it is to induce false memor.
01:090:101:28 index 06561

Traditional Organic Food and Farming Systems
Joseph Heckman
(Plant Biology & Pathology)
Before supermarkets and the modern obesity crisis, we were closer to the source of our food. Fresh foods from fertile soil were consumed raw or specially prepared by fermentation. Milk, meat, and eggs were obtained from animals on pasture. Soils were maintained with compost and by keeping livestock and crops together. In this course, we will study traditional organic food and farming systems through field trips and from selected writings of organic pioneers. We will also explore the challenges and rewards of producing and preparing farm fresh foods on an organic homestead, and learn how to connect with local organic farmers to secure these nutrient rich foods.
11:090:101:06 index 10513

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Is Climate Changing?
Benjamin Horton (Marine and Coastal Sciences)
This seminar will provide you with an understanding of the Earth’s climate system and how and why climate and sea levels have changed through time. The emphasis will be placed on spatial and temporal scales in the modern system before exploring the evidence for past change, possible mechanisms to explain these changes, and the implications of these changes to past, present, and future global climates and sea levels. Through this seminar, you will develop a sound understanding of the role of various components of the climate system, as well as experience hands-on opportunities to undertake applied laboratory research methodology.

11:090:101:24 index 15292

Astrobiology: Is there Life on Other Planets?
Janet Huang (Molecular Biology and Biochemistry) and Gaetano Montelione (Molecular Biology and Biochemistry)
This course will explore the basic chemistry of life, what we know about the early evolution of molecular life forms, and how this is related to three basic factors: energy source, liquid state, and organic molecules. How did these appear on the earth and function together to create life? Does the right combination exist in the philosophy of Lao-Tse (604 B –?), Aristotle (384 – 322 BC), Spinoza (1632 – 1677), and Maurice Merleau-Ponty (1908 – 1961)? To answer these questions we will consider what kinds of life forms exist on Earth and whether life on other planets would share similar characteristics, such as DNA and RNA. We will look at the role of asteroid impacts in the evolution of life, the effect of Solar wind, and the role of the Earth’s magnetic field and the Martian magnetic field. The course will include a field trip to the Rutgers Observatory or the Museum of Natural History’s Hayden Planetarium.

11:090:101:62 index 09333

Complementarism: A Science-Based Philosophical Framework for Integrating Irreconcilable Opposites
Sungchul Ji (Pharmacology and Toxicology)
Complementarism is the philosophical framework constructed on the basis of the postulate that the principle of complementarity formulated by Niels Bohr in quantum physics can be applied to biology, philosophy, and religion. In this seminar, we will explore the version of complementarism that the instructor began to develop in the 1970s, motivated by two realizations. First, that information and energy are the complementary pairs that are the basis of the postulate that the principle of complementarity formulated by Niels Bohr in quantum physics can be applied to biology, philosophy, and religion. And second, that similar triadic relations exist in the philosophy of Lao-Tse (604 B –?), Aristotle (384 BC – 322 BC), Spinoza (1632 – 1677), and Maurice Merleau-Ponty (1908 – 1961). Students will be encouraged to apply the complementarian perspective to solving practical problems facing contemporary human society.

11:090:101:62 index 09333

New Jersey Estuaries
Michael Kennish (Marine and Coastal Sciences)
This course will examine the environmental characteristics of shore and estuary environments in New Jersey, including the physical, chemical, and biological aspects of these systems. Some of the topics that will be covered include nearshore ocean waters, beaches, bays, estuaries, biotic communities, pollution, water quality, human use and impacts, climate change effects, coastal storms, recreational and commercial value, as well as management and policy elements. The focus will be primarily on New Jersey estuaries: Newark Bay, Raritan Bay, Barnegat Bay-Little Egg Harbor Estuary, Mullica River-Great Bay Estuary, coastal lagoons from Assecon to Cape May, and the Delaware Estuary and Bay.

11:090:101:07 index 19466

Batteries, Fuel Cells and Alternative Energy Devices
Lisa Kleina (Materials Science and Engineering)
Batteries, fuel cells, and alternative energy devices will be the focus of this seminar. Students will learn what is needed to improve current technology and what is required to make new technologies practical in the area of energy generation. The seminar will focus on energy storage (in devices such as batteries) and energy conversion (in devices such as solar cells). Other activities will include meeting researchers actively involved in materials research in energy-related fields and assembling and testing actual solar cells.

11:090:101:49 index 09311

History of High Speed Flight: Flying Faster Than the Speed of Sound
Doyle Knight (Mechanical and Aerospace Engineering)
On October 14, 1947, the sound barrier was broken for the first time in a manned level flight in the Bell X1 piloted by Chuck Yeager. This remarkable achievement, due to the efforts of many engineers and scientists, marked the beginning of the age of supersonic aircraft. The seminar will examine the contributions of many of this era’s pioneers, including Ackeret, Busemann, Prandtl, Tupolev and many others. The crucial role of the development of turboshaft and turbulent propulsion systems will be reviewed. Both U.S., European, and Soviet Union (now Russian Federation) aircraft will be considered. The seminar will conclude with a visit to the Smithsonian Air and Space Museum in Washington, D.C.

11:090:101:72 index 10535

Where the Heck is My Flying Car?
Casimir Kulikowski (Computer Science) and Charles McGrew (Computer Science)
This seminar will survey futurism from the late 19th century through the current day. Many people have described the future they believe will come—and pretty much all of them have been wrong. The course will look at specific ‘futures,’ for instance the vision of Mechanistic Socialism in Russia in the 1920s, the Nazi eugenic nightmare, the atomic-apocalyptic views after WWII, the computer-as-suppressor from the 1960s, the computer-as-liberator of the 1980s, and more. The course will seek to discover what sort of futurism might actually work. Students will be expected to join in the debate of what cultural, scientific, philosophical, technical, political, economic, artistic, and other factors have influenced views of the future, and how that has evolved over time (so some knowledge of aspects of relatively recent history will need to be learned). Students will be required to present an end-of-class project that will entail students picking a future (50, 100, etc. years ahead), and describing what they think that future will be like, and why.

11:090:101:53 index 07054

The Psychophysiology of Stress Management: How To Do It and Why It Works
Paul Lehrer (Psychiatry)
Students will be given an introduction to psychophysiological aspects of stress, and will learn a number of well validated techniques for managing stress more effectively in their own lives. They will get an introduction to the autonomic nervous system, how the sympathetic and parasympathetic systems are regulated, how they are affected by stress, and how stress management methods can help regulate them. Topics will include an introduction to homeostasis and allostatic, deep muscle relaxation, hypnosis and self hypnotic, mindfulness, and cognitive restructuring. Students will learn to use each of these approaches in their own lives. They will take daily data on their own experiences in managing stress, and will write a paper on stress management based on their own data.

11:090:101:51 index 06568
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**11:090:101:08 index 19467**

Additives/antimicrobials in the context of food safety. Foodborne illness when traveling. Finally, we will address the issue of food dipping, food safety myths (the five-second rule), and how to avoid microbes. Discussions will center on topics including probiotics, double-food science. We will explore popular trends and myths related to food microbiology and biometrics. Biometrics refer to user authentication techniques that rely on measurable physical characteristics that can be automatically verified. The students will learn about essential principles and methods for biometrics and systems security engineering, including understanding the weaknesses and strengths of approaches, and their ethical and social implications. Recent examples of societal implications include the on-going litigation between Apple and the U.S. government on smartphone security and privacy. Students will gain an understanding of how their own smartphones help or do not help them to secure their personal and private data. Topics to be covered include the basics of security engineering, face recognition, iris recognition, usability and psychology, human factors in securing systems, softbiometrics, smartphone security, and the intersection of security and privacy.

**01:090:101:21 index 06556**

Climate Change: Identifying Solutions Through Supply Chain Archaeology

Kevin Lyons

(Supply Chain Management and Marketing Science)

Supply chain management and archeology are two academic disciplines that rarely cross paths. Archeology is the scientific study of past cultures and the way people lived based on the things they left behind or discarded as post-consumer waste. Supply chain management involves the movement of man-made materials as they flow from their source to end-users (customers). In this course we will explore how to combine these two disciplines to research and discover opportunities to address climate change impacts by studying product life/death-cycles, consumption, and our discards. We will conduct in-class and virtual archaeological digs at waste and dumproots globally to look for climate impacts while identifying new eco-product design solutions.

**01:090:101:57 index 11540**

Biotechnology from Hollywood and Beyond

Paul Meers (Plant Biology and Pathobiology)

Biotechnology has been perceived and portrayed in various ways by Hollywood and filmmakers around the world. In this course, we will explore the occasionally wide gap between public perception and the way science really “works.” Students will view and discuss the portrayal of bio- and nanotechnologies in popular movies from this country and select international films. Misconceptions and accurate portrayals will be analyzed to introduce students to a basic understanding of the latest exciting work in rapidly emerging areas such as genomics and epigenetics. Students will present thumbs up/thumbs down science movie reviews as a required assignment.

**01:090:101:09 index 07088**

How Molecular Biology Was Created and How to Win a Nobel Prize

George Pieczonka (Biochemistry and Microbiology)

The Professor teaching this course worked with all the pioneering Nobel laureates of Molecular Biology. He published with Francis Crick, co-discoverer of the structure of DNA, and Crick can trace his scholarly lineage back to Sir Lawrence Bragg, Nobel Prize winner for Physics (1915), who is responsible for the Bragg law of X-ray diffraction. He published with Sir Aaron Klug, who received the Nobel for optical diffraction and the structure of TMV and with Nobel laureate Sydney Brenner, who discovered mRNA. In this seminar, students will learn about the Bragg equation and simplify it so they can use it to decipher Photo 51. Students will measure parameters from Photo 51 and then re-derive the structure of DNA. An exciting hands-on component of the class will include a lab exercise where students use laser diffraction to determine helical molecular structure. Students will also learn the logic of how Fred Sanger, who received two Nobel prizes, created his RNA and DNA sequencing systems. This changed the whole landscape of science and medicine forever.

**01:090:101:26 index 15294**

From Polar Bears to Palm Trees: NJ's Changing Climate

David Robinson (Geography)

With the devastation wrought by Sandy several years ago, questions have arisen as to whether this is a sign of more severe weather to come in future years. Recent years have also seen massive flooding in our river basins, the wettest year in over a century (2011) and the warmest year (2012). Clearly something is happening to our state’s weather and climate, with several potential culprits to blame, foremost being the impact of humans on the regional and global atmosphere and landscape. This seminar will explore NJ’s weather and climate in the past, present and future. We will examine the physical system, look at the potential impacts of change on the state, and discuss what can be done to mitigate or adapt to future changes.

**01:090:101:77 index 11772**

“For security reasons we are asking you to comply”: Security Engineering and Biometrics in the 21st Century

Janne Lindqvist (Electrical and Computer Engineering) and Vishal Patel (Electrical and Computer Engineering)

When you are asked to comply, what are these security reasons? Do they have anything to do with security? Or are they about something else? Are things that are presented as securing you actually “security theatre?” This seminar will provide students with an understanding of security engineering and biometrics. Biometrics refer to user authentication techniques that rely on measurable physical characteristics that can be automatically verified. The students will learn about essential principles and methods for biometrics and systems security engineering, including understanding the weaknesses and strengths of approaches, and their ethical and social implications. Recent examples of societal implications include the on-going litigation between Apple and the U.S. government on smartphone security and privacy. Students will gain an understanding of how their own smartphones help or do not help them to secure their personal and private data. Topics to be covered include the basics of security engineering, face recognition, iris recognition, usability and psychology, human factors in securing systems, softbiometrics, smartphone security, and the intersection of security and privacy.

**01:090:101:10 index 19467**

Food Microbes: What and Where Are They?

Karl Matthews (Food Microbiology)

This course provides a window into the world of food microbiology and food science. We will explore popular trends and myths related to food microbes. Discussions will center on topics including probiotics, double-dipping, food safety myths (the five-second rule), and how to avoid foodborne illness when traveling. Finally, we will address the issue of food additives/antimicrobials in the context of food safety.

**01:090:101:08 index 19467**

How Molecular Biology Was Created and How to Win a Nobel Prize

George Pieczonka (Biochemistry and Microbiology)

The Professor teaching this course worked with all the pioneering Nobel laureates of Molecular Biology. He published with Francis Crick, co-discoverer of the structure of DNA, and Crick can trace his scholarly lineage back to Sir Lawrence Bragg, Nobel Prize winner for Physics (1915), who is responsible for the Bragg law of X-ray diffraction. He published with Sir Aaron Klug, who received the Nobel for optical diffraction and the structure of TMV and with Nobel laureate Sydney Brenner, who discovered mRNA. In this seminar, students will learn about the Bragg equation and simplify it so they can use it to decipher Photo 51. Students will measure parameters from Photo 51 and then re-derive the structure of DNA. An exciting hands-on component of the class will include a lab exercise where students use laser diffraction to determine helical molecular structure. Students will also learn the logic of how Fred Sanger, who received two Nobel prizes, created his RNA and DNA sequencing systems. This changed the whole landscape of science and medicine forever.

**01:090:101:26 index 15294**

From Polar Bears to Palm Trees: NJ's Changing Climate

David Robinson (Geography)

With the devastation wrought by Sandy several years ago, questions have arisen as to whether this is a sign of more severe weather to come in future years. Recent years have also seen massive flooding in our river basins, the wettest year in over a century (2011) and the warmest year (2012). Clearly something is happening to our state’s weather and climate, with several potential culprits to blame, foremost being the impact of humans on the regional and global atmosphere and landscape. This seminar will explore NJ’s weather and climate in the past, present and future. We will examine the physical system, look at the potential impacts of change on the state, and discuss what can be done to mitigate or adapt to future changes.

**01:090:101:77 index 11772**

Food Microbes: What and Where Are They?

Karl Matthews (Food Microbiology)

This course provides a window into the world of food microbiology and food science. We will explore popular trends and myths related to food microbes. Discussions will center on topics including probiotics, double-dipping, food safety myths (the five-second rule), and how to avoid foodborne illness when traveling. Finally, we will address the issue of food additives/antimicrobials in the context of food safety.
Endocrine Health and Diseases
Dipak Sarkar (Animal Science)
What are the health consequences of alcohol consumption? What is the relationship between stress, sleep disruption and alcohol abuse? Does childhood neglect affect mental illness? This seminar will explore these questions, and more, as students learn about various research approaches currently being used in Rutgers’ labs to understand how stress and alcohol consumption affect endocrine health and cause various diseases. Readings and discussions will focus on identifying the physiological mechanisms involved in various endocrine diseases.
11:00:001:103:1 index 10754

The Jensen’s seminar explores what we have learned about the fundamental physics of elementary particles and cosmology over the past fifty years as well as the current mysteries and unknowns. Through our discussions, students will gain an idea of what fundamental physics research is and the pressing questions that we are currently striving to answer. The course is based on an article by Steven Weinberg from the New York Review of Books entitled “Physics: What We Do and Don’t Know.” The seminar will be at a serious level, but the use of mathematics will be kept to a minimum. Students who have taken college-prep level mathematics in high school should be well prepared.
11:00:001:103:1 index 11774

Republic of Web
Chirag Shah (Library and Information Science)
People can change information, but can information change people? The Web is increasingly becoming a peer-to-peer connection network. It is also the most modern: fiber optics made of ultrapure glass. Glass has been used for millennia and is perhaps the oldest man-made material. It is also the most modern: fiber optics made of ultrapure glass. Glass is used in a variety of fields, from lighting and automotive parts to telecommunications. In this seminar, we will explore the unique challenges of medication administration to children. Students will learn to think creatively about how to solve medication issues for children, providing excellent background and preparation for students interested in pharmacology, nursing or parenting.
11:00:001:90:88 index 11778

Intriguing Connections Between Nutrients, Environment, and Disease
Sue Shaples and Paul Breslin (Nutritional Sciences)
Our environment is always changing as a result of weather, toxins, trends in farming, food processing, and disasters, and this affects what we eat, how we metabolize, and it also influences disease. In this course, we will discuss and debate topics such as environmental endocrine disruptors and disease; salt and the balance between risk for hypertension and diastolic due to exercise; the link between animal protein and environmental carcinogenic processed foods versus slow foods and disease; sucrose versus high fructose corn syrup; the interaction between vitamin D from diet and the sun and its impact on disease; determining whether vitamin supplements prevent or cause disease; and the social environment and food intake.
11:00:001:104:1 index 19464

Manufacturing Uncertainty: The Climate Denial Machine
Rachel Shwom (Human Ecology) and Robert Kopp (Earth and Planetary Sciences)
If 97% of scientists agree climate change is happening and caused by humans, why do so many members of the public doubt the existence or seriousness of climate change? This seminar will focus on identifying where climate science’s certainties and uncertainties do exist alongside the cutting edge social science research on how climate science has been politicized and made uncertain in the U.S. Students will read research articles that document the consensus on climate change science and the rise of skeptical scientists and business leaders. They will learn about the claims climate denials make about climate change science and the think tanks and corporations that employ them. Students will also do research to find their own examples of the media coverage that drives public perceptions of climate change science. To gain understanding of how climate skeptics think, students will interview a skeptical member of the public. By participating in this seminar, students will gain an understanding of how climate science is conducted and the political context in which it is produced and disseminated in.
11:00:001:20:1 index 13267

Treating the World for Parasites: 2015 Nobel Prize!
Michael Sukhtdeo
Ecology, Evolution, and Natural Resources
The 2015 Nobel Prize for medicine was shared by three Parasitologists, two from China, and the third from right here in New Jersey for their discoveries of anti-parasitic drugs. Dr. Campbell, our local Nobel, created one of the world’s most successful drugs ever developed to treat domestic animals and pets. His is also a remarkable story of how he leveraged his success into a program whereby Merck Pharmaceuticals donated the drug to cure hundreds of thousands of Africans suffering from Tropical River Blindness. The political and sociological hurdles to accomplish this program using animals’ drugs to treat humans were enormous. This seminar will use the stories of these three Nobels to illustrate some of the complex issues that determine drug treatment of parasites from national and global perspectives. In addition, we will place these ideas on drug therapy in the context of natural systems and the basic biology of parasites. Thus, the course will include field trips to domestic animal farms, streams, ponds and the ocean, and also include hands-on labs where the students will learn standard parasitological techniques in parasite recovery and identification based on morphology and fecal analysis.
11:00:001:14 index 10978

The World of Glass
Jack Wenzel (Material Science and Engineering)
Glass has been used for millennia and is perhaps the oldest man-made material. It is also the most modern: fibers optics made of ultraphase glass form the basis of the internet. In this seminar we will discuss the nature of glass, the evolution of technologies for its manufacture, and the properties which make it a useful and versatile engineering material as well as a medium for artists. We will conclude with a demonstration of glass melting and pouring at the Rutgers-Corning glass laboratory.
11:00:001:193 index 11811

Introduction to Renewable Energy Technologies
Ketvan Esfarjani (Mechanical and Aerospace Engineering) and Mona Zebardasti (Mechanical and Aerospace Engineering)
The course introduces students to different technologies used to generate electricity and mechanical energy (cars) from renewable and clean energy resources. The idea is to expose students to different fields (solar, thermal and chemical energy conversion systems), so that they can choose their own area of interest for further study. Seminar includes in-class demonstrations of different renewable energy kits, screenings of short movies introducing different fields, and power point presentations and panel discussions on topics like climate change and hydrogen economy.
11:00:001:91 index 11809
SPRING 2017
AR ESTY-BYRNE SEMINARS

Traditional Byrne Seminars are designed to introduce incoming students to Rutgers faculty and to the exciting research being conducted at one of the nation’s top research institutions. The Aresty Research Center builds on this introduction by placing undergraduates with faculty mentors. With the Aresty-Byrne Seminars, these two signature educational initiatives in the Office of Undergraduate Academic Affairs are collaborating to meet the increasing student demand for research-based learning opportunities. Aresty-Byrne Seminars take traditional Byrne Seminars one step further and ask students to participate in their professors’ research through the practical application of knowledge. In other words, these seminars expose students to the activities of research—from building robotics to collecting specimens in the field to working through an archive. Professors leading these courses then offer an Aresty research project for the next year, and select students from the seminar as research assistants.

Fighting the Fat: Do Obesity Treatments Work?
Nicholas Bello (Animal Science)
“Globesity’’ is the term used by some to describe the worldwide impact of obesity. Several treatments are available for obesity, but do any of them work? In this seminar, we will explore the causes and consequences of obesity and current treatment strategies. Through hands-on experiments, we will analyze neural pathways that control food intake and body weight, and examine how obesity drugs work. We will explore obstacles to long-term treatment and efficacy standards of the FDA.

Use of Medicinal Plants: Knowledge is Power!
Mary Bridgeman (Pharmacy Practice and Administrative) and Lena Struve (Ecology, Evolution, and Natural Resource)
Plants have been utilized since ancient times in an attempt to cure disease and relieve suffering. Pharmacognosy, a branch of medical science devoted to drug plant history, selection, identification, and study, remains an alive and flourishing area of research in our modern medical world. The objectives of this seminar are to introduce students to the roles of plant-based medicines throughout history, describe the use of plant-based and herbal medicine in present-day patient care, including safety and adverse effects, describe the toxicology and adverse effects attributed to medicinal herbal plants, identify future areas of drug development, and debate current controversies surrounding medicinal herbal drug use.

The Politics of Energy: Action to Achieve International Climate Objectives
Ann Marie Carlton (Environmental Science) and Frank Felder (Center for Energy, Economic, and Environmental Policy)
The United States participates in the Conference of Parties (COP) to pursue the UN Convention goal: to avoid “dangerous anthropogenic interference with the climate system.” In August 2015, President Obama and the Environmental Protection Agency announced the Clean Power Plan, the first U.S. rule aimed at reducing carbon emissions to the atmosphere. The extent to which the new rule is able to achieve climate goals is hotly debated for both scientific and political reasons. This seminar will visit electricity-generating facilities on campus (e.g., solar arrays, fossil fuel plants) within the context of understanding COP21 goals announced in the recent Paris Agreement, and the COP22 meeting in Marrakech designed to evaluate implementation of climate agreements. We will discuss actions Rutgers students can take to develop local strategies that achieve climate goals. The final class will be a mock COPD meeting.

The Psychology of Reasoning
Clark Chinn (Education Psychology)
People may try to think rationally and make sound decisions, yet they often fall short. For example, people are sold on the latest diet fad even though evidence indicates the diet is unsafe. Businesses cling to traditional incentive plans even when evidence shows that these plans hinder creativity and innovation. When we make mistakes evaluating evidence, we may make decisions that harm our health, well-being, and happiness. In this seminar, we will examine research in psychology and education to learn practical techniques to evaluate evidence and improve our reasoning and decision-making ability. At the same time, we will apply what we learn to analyze the reasoning of middle school students who are also learning to improve their reasoning skills. Our work will culminate in one or more presentations at the annual Aresty Undergraduate Research Symposium.

Revolutionary Remediation: Environmental Remediation at Rutgers University
Donna Fennell (Environmental Sciences)
New Jersey was the first industrialized state in the union and has suffered from substantial environmental contamination as a result of heavy production and usage of industrial chemicals. Fortunately, New Jersey is also where some of the earliest applications of waste treatment and environmental cleanup technologies have evolved. Indeed, some of the earliest scientific research on pollutant biodegradation was produced by scientists at Rutgers—and Rutgers faculty continue to lead vibrant research programs to repair the environment. In this seminar, we will explore the history of environmental pollution and environmental remediation in New Jersey, specifically focusing on contaminated sites along the Raritan River. We will explore technology-enabled mapping that allows a bird’s-eye view of contaminated sites in New Jersey. Students in this course will continue an important Rutgers tradition by participating in laboratory research activities and developing ideas related to environmental cleanup in the Raritan River Basin.

The Wonder and Intricacy of the Human Machine
Joseph Freeman (Biomedical Engineering)
The human body is an intricately engineered machine. To achieve peak operation, the body employs intricately designed molecules, arranged in specific tissues, in different areas of the body. The human body has an incredible level of organization from the molecular level to the tissue level; one small change at the microm level can lead to health issues or even death. In this course, we will take a journey into the human body beginning at the molecular level and ending at the tissue level. We will discuss how molecular structure affects function, leading to a discussion of tissue structure and how molecular arrangement and alignment dictate tissue behavior. In addition, we will have a hands-on experience isolating proteins from tissue and reconstituting them into a usable biomaterial.

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Performing Latinidades: Latinos in Film, Visual Arts and Performance
Yolanda Martínez-San Miguel
(Latino and Caribbean Studies)

Latinos are becoming increasingly visible in the United States. According to the 2010 Census in New Brunswick, NJ, 49.9% of the population identifies as Hispanic or Latin@. As a consequence, Latinos are becoming increasingly visible in cinema, television, visual arts and performance, and they are a central element in the definition of U.S. Americanness. This seminar will explore visual, cinematic and performatic depictions of Latinidad in the U.S. to meditate on how Ethnic studies broadens our knowledge about contemporary American identities in the U.S. and the Global South. Seminar includes a trip to Museo del Barrio in NYC.

Truth or Fiction?
Leslin Charles (Rutgers Libraries)

The information age has democratized the dissemination of and access to information. Social media provides a voice to all and can blur the lines of fact and fiction. Are all tweets worth the noise they generated? How can we filter through opinions and the news media to gain accurate knowledge? This course will explore the impact of the information age on our understanding of truth. Through lectures, guest speakers, videos, role play, and discussion, students will examine various channels of information and will be required to find accurate data using a wide range of information sources.

Sexuality and Migration
Carlos Decena (Latino & Hispanic Caribbean Studies)

In the contemporary world, it is often assumed that people migrate from one country to another in search of economic opportunities. While this is largely true, scholars have begun to study the role that sexuality plays in the migratory process. In this seminar, we will begin by examining established models for the study of migration and sexuality. Through discussion of case studies, we will press on these traditional models as we discover ways in which sexual identities, practices, and meanings shape migration and vice versa. Case studies will include the lives of Filipino gay men in New York City, the role of sexuality in shaping U.S. immigration policy, and the shifting meanings of sexual practices among Mexican immigrant men and women in the U.S.
The Honors College at Rutgers University–New Brunswick provides Byrne Seminar to fulfill their first-year Byrne requirement. Honors College scholars have the opportunity to enroll in any traditional interest. In addition to these select Honors College designated seminars, mission through small courses that build on faculty members' research kind of interdisciplinary study that is a cornerstone of the Honors College's mission. Honors College Byrne Seminars are intended to introduce students to the offer seminars specifically designed for incoming Honors College scholars. With the Honors College, the Byrne Seminars Program is pleased to research-focused living-learning educational experience. In partnership students from a range of undergraduate schools with an interdisciplinary, with the Honors College, the Byrne Seminars Program is pleased to researchers, and theatrical potential of the body using traditional and experimental techniques of dance improvisation. The seminar includes a field trip to New York City for a performance.

**Data Mining in the Humanities**
Francesca Giannetti (Rutgers Libraries)

Popular media often portray "big data" as the exclusive province of information scientists, but data collection in the humanities can swiftly exceed the capacity of the human brain to analyze. Increasingly, humanists turn to digital tools to conduct quantitative research on literary texts, websites, tweets, images and sound recordings. How does one create or reuse a humanities data set? What tools are used to store, manipulate and process that data? How does one begin to analyze data using visualizations? This course will explore the methodologies of both quantitative and qualitative analysis in the humanities using free and open source digital tools to yield new insights into data that would otherwise be difficult to obtain. Through lectures, discussion, labs, and a digital final project, students will familiarize themselves with the tools of digital scholarship and form complex arguments on the basis of a few simple computational techniques.

**Paper-based Electronics and Art**
Aaron Mazzeo (Mechanical and Aerospace Engineering)

Paper is an ideal medium for folding (origami), cutting, embossing, casting, inking, and painting. Combine these attributes with electronic components on or within paper, and there are some interesting opportunities to build mechanical structures and add sensing, lighting, or color. In this hands-on seminar, students will have the opportunity to review state-of-the-art research in paper-based electronics, and then exercise creativity in an engineering lab to build their own electronic systems that they will design while keeping in mind aesthetics and artistic creativity.

Julia Ritter (Dance)

This seminar will explore methods and techniques of improvisation and play as applied to the creation of dance theater. Students who take this seminar should be open to immersing their playful selves in creative games, experiments, and improvisations that use the body and the voice. This course is for anyone who loves to move and challenge themselves to solve problems with creative solutions. We will explore the movement and theatrical potential of the body using traditional and experimental techniques of dance improvisation. The seminar includes a field trip to New York City for a performance.

**Building Trust Through Social Good: The Practice and Ethics of Successful Cause Marketing Programs**
Michael Santoro (Management and Global Business) and Jacob Lepiara (Manager, Corporate Equity and Partnerships, Johnson & Johnson)

The old paradigm of profit versus people is changing as individuals demand the products and companies they support behave ethically and give back to their communities. Corporations are taking notice and making social good a core component of their operating principles and marketing strategies. In this seminar students will be introduced to the concept of cause marketing, the principles behind successful and ethical cause marketing programs, and learn to develop a critical eye when evaluating the social and business impacts of cause marketing programs, both as consumers and potential future cause marketers.

**Why Is an Ancient Disease Still Killing Millions?**
Stephan Schwanzer (Director, Center for Global Public Health; Rutgers School of Public Health) and Chrispin Kamhili (Global Medical Affairs Leader, Global Public Health, Johnson & Johnson)

This seminar explores the global health priorities and disease burden, including HIV/AIDS, malaria and tuberculosis, diarrheal diseases and respiratory infections in children. We will look at global disparities, and the influences of poverty and socioeconomic status. Additionally, environmental factors, climate change and urbanization will be explored as a source of new challenges and opportunities for changes in the global public’s health. As a case study, we will look specifically at tuberculosis (TB), an ancient disease and the number one infectious killer globally. Despite scientific and social advances, a high burden of tuberculosis persists worldwide. We will review diagnosis, treatment and prevention of TB, drug resistance, the lack of drug options and difficulties to access drugs and efficient health care systems in low and middle-income countries. We will discuss the need for new drugs, including bedaquiline, the first new tuberculosis drug developed in the past 40 years. To deepen our understanding, we will consider the challenges of developing new medications, the ethics of testing new drugs, and the important contributions needed to control the global tuberculosis pandemic. For firsthand impressions of active global health research at Rutgers School of Public Health, students will visit the NIH-funded research laboratory of the course director with onsite learning during the seminar series.
**FIRST-YEAR Seminars**

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**HUMANITIES**

**Dreams of (Human) Machines**

**Nicola Behrmann** (German)

This seminar examines the role of machines and automations in regard to the modernist crisis of representation, the fantasy of artificial creation, and the connection between art and life. We will investigate the way in which Friedrich Nietzsche’s typewriter influenced his writing, accompany Rainer Maria Rilke’s Maie Laured Brigge on his visit to the Salpêtrière hospital in Paris (excerpts), read Franz Kafka’s horror story “In the Penal Colony,” travel to the Philadelphia Museum of Art to see Marcel Duchamp’s famous installation The Bride Stripped Bare by Her Bachelors, Even (The Large Glass), try to make sense of Dadaist poems and André Breton’s Surrealist concept of “automatic writing,” and watch Fritz Lang’s famous silent movie Metropolis (1927) and Ridley Scott’s Blade Runner (1982).

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**Where Are We? Mental Maps and How We Perceive Space**

**Tisha Bender** (English Writing Program)

Which island do you think is bigger? Sumatra or Great Britain? The average person on our continent would say Great Britain because it’s a more familiar country to us. But Sumatra, in fact, is more than twice the size of Great Britain! In this seminar, we will look at how we create mental images of locations and the distances between them. We will start by discussing the images we have of familiar places, such as our bedroom or our hometown, and move to the less familiar—the college campus, New York City, and beyond. On the one hand, what factors create misinformation and confusion about certain spaces, and barriers to the flow of information and knowledge about these spaces? On the other hand, what makes us engage in certain places, and how accurately do we know them? We will look at the impact of transportation, the Internet, GPS, and prevailing socioeconomic conditions, and discuss how globalization and changing economic circumstances have significantly affected global perception.

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**Melodrama: The World’s Favorite Kind of Story**

**Matthew Buckley** (English)

In the last 200 years, one form of narrative—melodrama—has come to dominate popular culture around the globe. Melodrama’s typical qualities—it’s primary appeal to the emotions, its spectacle and suspense, its division of “good” and “evil” characters, its comforting insistence on everything ending well—are found in virtually every “dramatic” film and television show we see. Yet we are just beginning to understand what melodrama is and what its extraordinary success means. In this seminar, we will look at melodramas from the past and present, ranging from early Victorian popular plays to modern disaster films, romantic dramas, and contemporary television series like Breaking Bad and The Wire, in order to explore the history and meaning of the modern world’s favorite kind of story.

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**Debating The Four Feathers**

**Abena Busia** (English)

A.E.W. Mason’s The Four Feathers (1902) remains the most filmed book of the twentieth century. The question behind this seminar will be to ask why? We will explore the central role of gender, specifically the imbrications of “gender, race, and empire.” Which is the better question: how does a racialized imperial venture play itself out in the context of gender? Or how does a gendered imperial venture play itself out in the context of race? This is essentially a story about man, war, and the meaning of courage in a particular historical setting. Yet there are many subtexts, and in order to discuss what story, if any, the different versions are telling about women and war, Africa, and African women, we will study at least four different versions of the film from 1929, 1939, 1977, and 2002. Literary texts and the films they inspire are cultural texts which provide rich fields of meaning, and our own debates in the classroom will provide an opportunity to debate their universe of moral obligations.

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**Vampirism: History of the Modern Myth**

**E. Efe** (Comparative Literature, AMESALL)

This seminar will cover the birth and growth of the vampire figure in the modern imagination, from the romantic era to our present. We will explore what went into the making of the vampire as a modern myth. In particular, we will analyze where the vampire stands in the history of blood, and what it has to do with the image of the Turk or the Oriental, with the Balkans or the East of Europe. We will look at the classical age of vampirism as a moment in intellectual history—one tied to the evolution of “circulation” at large, of goods, ideas, money, and again, of blood. While reading romantic poetry and tales, we will investigate the social, historical, and philosophical implications of the rise of the blood-sucking monster. These various contexts will enrich our discussions when we address vampirism in contemporary film and popular culture at the end of the semester.

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**The Fault in Our Fiction: John Green and Literature’s Big Questions**

**Brad Evans** (English)

John Green’s sixth novel, The Fault in Our Stars (2012), a young-adult best-seller and particular favorite of Green’s online fans, became a breakout success last summer after being turned into a major motion picture. Through the heartbreaking love story of teenage cancer patients, the novel makes a strong case for the exceptional vibrancy of the young adult literary scene today. There is no doubt that Green’s many fans take his six young adult novels very seriously, but can you read them seriously as literature? How do Green’s novels fare when approached as literary texts and read through the lens of contemporary literary theory? Conversely, how does the field of literary study look when viewed through the lens of Green’s formative works of contemporary young adult fiction? This seminar will take up these questions while reading The Fault in Our Stars alongside some other works of classic and contemporary fiction, including Jane Austen’s Pride and Prejudice (1813), (and the sensational YouTube adaptation The Lizzie Bennet Diaries), and Green’s earlier novel Looking for Alaska (2005), itself soon to be released as a motion picture directed by Sarah Polley. We will screen both The Fault in Our Stars and another film by Polley, Stories We Tell (2012); and, if it has been released, we will head to the local multiplex to see the film adaptation of Looking for Alaska.
Yoga: Finding Calm in Chaos
John Evans (Dance)
This seminar will help you focus on finding calm in your life while joining the ranks of busy college students. Through the study and practice of yoga, we will explore how to build a stronger mind-body connection. This course will assist you in learning how the practice of yoga can support a happy and healthy life. Through centering and breathing techniques, strengthening and stretching yoga postures, and simple meditations, students will begin to gain a better sense of well-being. We will investigate mindfulness trainings and yoga sequences throughout the ten-week seminar.

The Politics of Consolation: Memory and the Meaning of September 11
Angus Kress Gillespie (American Studies)
This seminar will examine issues of cultural trauma and collective memory. We will argue that a key function of American political leaders is to provide consolation in the aftermath of calamitous, unexplainable tragedies. Today, the Twin Towers of New York City’s World Trade Center stand only in our memory, an image that calls to mind sorrow and loss. But during the years that they straddled the skyline, the towers meant many things to many people. In this seminar, we will examine the politics in ensuing years in terms of real estate developers wanting office space, grieving families wanting a memorial, and all of America looking to rebuild to honor the dead.

Musical Poetry: A Journey Through the Classical Art Song
Barbara Gonzalez-Palmer (Music)
Since the late 18th century, classical art song has attempted to heighten our experience of poetry—an already independent art form. Some of the greatest works of music are in these magical miniatures, written by such masters as Beethoven, Schubert, Schumann, Brahms, Debussy, Barber, Copland, and countless others. Through a musical “tour” of art song, we will explore the close relationship between text and music, pianist and singer.

What Am I Looking At?: Visual Analysis of Original Artworks
Christine Givkos (Zimmerli Art Museum)
Understanding and interpreting imagery and color are works of art or scientific diagrams, not only features close looking and accurate description, but also building a “visual vocabulary” to make comparisons and contrasts. In this seminar, held at the Zimmerli Art Museum, students will hone their visual analytical skills through examinations of different types of original works of art, learning to consider artistic media, compositional forms, subject matter and iconography. Students will also be introduced to specialized resources for studying art, art history, and visual culture.

Learning Global Issues Through Films
Fakhri Haghani (Middle Eastern & North African Studies)
Cinema is a means of expression. It is a communication tool, a language and a message. As Lebanese filmmaker Jocelyne Saab has said, “Cinema is life.” Films do reflect the reality around us. This course leads students to explore the study of films as one of the 21st century’s most innovative interdisciplinary fields of research into the revolutionary productions of knowledge. The course introduces students to foreign cultures and global issues through films from around the world. It will generate discussion in history, politics, culture, literature, art, environment, food, fashion, and family. Students will come to a new understanding of international issues from a critical thinking perspective. The course includes a field trip.

Sounding Play: Acoustic Ecology of Sports and Games
Eduardo Herrera (Music)
The intimate silence of the tennis court interrupted by a player’s grunt, the focused listening of a double dutch jumper with ropes that move too fast to see, the country music song playing in the pickup truck you stole in a video game; chanting with 40,000 other fans against the wrong call the referee’s whistle just signaled. Sound is an essential component of sports and games. Both as players and spectators, people engage in listening, chanting, speaking, noise-making, music-making, and even staying silent as part of an auditory ecology that is intimately tied with the immersion, flow and immortality of the success of the activity. In this class we will explore a series of case studies within the game-sport continuum that address important questions about gender, race, social experience, and the nature and potential of participatory sound-making. These will include chanting and crowd noise in stadium sports (soccer, football, tennis), double Dutch rope skipping, diegetic and non-diegetic music in open-world action games (Grand Theft Auto, Lord of the Rings Online), sound-driven designer board games (Space Alert, Escape: The Curse of the Temple), the sound crisis of motorsports (Formula 1 and Formula E), and music-rhythm games (Guitar Hero, Rock Band, and Dance Dance Revolution). Sound, ever present, becomes the basis for deep, intimate connections among and across players, games, and audiences.

Religion and the Origins of Political Order
Tao Jiang (Religion)
This seminar will examine the role various religions, such as Confucianism, Hinduism, Christianity, and Islam, have played in the origin of political order in civilizations around the world. We will use Francis Fukuyama’s recent book, The Origins of Political Order, to help us frame the discussion. This book critically examines the role religions have played in shaping the political cultures of ancient civilizations and their modern implications. We will study notions like tribalism, patrimonialism, bureaucracy, rule of law, and the relationship between church and state, contextualized in their historical background, thus helping us to better appreciate the contingency and vulnerability of a variety of modern political norms.

Korean Folk Music for the Modern Seoul
Min Kwon (Music)
From K-Pop to golf, cars, technology, arts, and diplomacy, the presence of Korea and Koreans is felt strongly in today’s global climate. Despite many challenges of the poverty-stricken decades following the devastating Korean War, Korea has exhibited a progression in global prominence that is nothing short of phenomenal. One remarkable reflection of the history of Korean culture is the country’s folk music genres which celebrate a 1500-year tradition. Through these art forms continue to thrive in traditional arrangements, modern performers and composers draw inspiration from the enormous body of folk songs and often adapt them to modern instruments to present these songs in a new light. Join us for an intriguing seminar to discover the rich diversity of Korean folk music, and the soul of Korea as we endeavor to create a musical bridge across cultures and generations and give a new voice to an extraordinary musical tradition.

Quantum Mysteries
Barry Loewer (Philosophy)
In this seminar, we will discuss the quantum revolution in physics that took place in the early twentieth century and its philosophical consequences. We will begin with a non-technical and non-mathematical introduction to the basic ideas of quantum mechanics. We will then look at the battle between Niels Bohr and Albert Einstein concerning the aims of physics and their different views concerning what quantum mechanics says about the nature of reality. We will discuss the famous paradoxes of quantum mechanics (“Schrödinger’s cat” and the “EPR paradox”), Bell’s theorem, and whether there are non-local connections in nature. We will also discuss whether there are consequences of quantum theory for free will, consciousness, and time.

Unmapping America Through Native American Narratives and Film
Angela Mullis (Director, Byrne Bramall)
Since the beginning of the Native American Renaissance in the 1960s, Native American writers have been addressing the continuing legacy of Indian Removal. Literary representations of displacement often portray alienation, resistance, survival, mixed identity, and individual and communal isolation. These concepts are essential to understanding the nature of place and identity that are interlinked for many Native Americans. In this course, we will complicate our understanding of “home” and what this means for Indigenous peoples throughout the United States. We will explore diverse tribal and national narratives to trace the ways in which tribal affiliation shapes the representation of cultural and national identities. Seminar includes a field trip to the National Museum of the American Indian in New York.

The Book: Digital, Edible, and as Art
MeganLots (Rutgers Libraries)
What is a book? From banned books to decorative books, this course will explore the cultural history of the book and how the physical format of books has changed over time. Students in this course will work hands-on with rare books and one of a kind materials from the New Jersey Artists’ Books and Book Arts Collection housed in the Rutgers University Libraries Special Collections. This course will include guest lectures by Book Artists, Curators, and Librarians. Students will take trips to the Brooklyn Center, MoMA, and more. Topics explored throughout this course will include Artist Books, Graphic Novels, E-Books, and the world of self-publishing.

World War II in Oral History and Film
NormanMarkowitz (History)
This seminar will explore WWII from the viewpoints of those who lived the experience. Through portrayals of the war in documentaries, films, and fiction, we will look at history as a process, a force by which perceptions of the past are influenced and transformed by changes over time as well as our present moment. From Europe to America to New Jersey, we will explore the history of this great war along with its lasting effects. The seminar includes a visit to the Oral History of Rutgers Graduates in WWII collection at the Alexander Library.

The “Problem of Evil” in Philosophy, Literature, and Film
TripMcCrossin (Philosophy)
What do we mean when we say of someone that they have “the patience of Job,” when we complain that “bad things happen to good people, and good things to bad?” when we admit that we are somehow consolled in our distress by the assurance that “things always work out for the best?” What such sayings, complaints, and consistations share, among other things, is that they reflect, somehow, the ongoing legacy of the problem known as “the problem of evil.” In this seminar, we will work together to understand a basic divide that has animated modern responses to the problem, as both a theological and secular one, and to trace the legacy of this divide in certain exemplary contributions to twentieth-century literature and film.
Looking East: A Different Way of Learning Dance, Language, and Traditional Arts & Cultures Through Movement

Paul Ocampo (Dance) and Chien-Ying Wang (Dance)

This course will investigate various dances, traditional arts and culture of Taiwan, the Philippines, and neighboring countries. Through the language of dance, students will learn traditional arts and cultures using practices and modality that are fun, interactive and informative. This seminar is designed for students who want to expand their understanding of dance as an emblem of cultural identity and an expression of social order. Along with the practice of dance, we will experience how to prepare traditional foods associated with respective festivities. The food serves as a conduit for a holistic experience to deeper comprehension of Asian cultural arts and heritage. This seminar will include a field trip to New York City.

Urban Adventure

Michael Rockland (American Studies)

Adventure is often associated with escaping community, leaving civilization, and “entering nature,” in part because of the common view that human beings are separate from nature. In this course we will assume the contrary, that the environment humans have built—including cities, highways, and even sewers—is a part of nature and also a place of adventure and wonder. Reading select chapters from books that explore the human built environment (including Looking for America on the New Jersey Turnpike and The George Washington Bridge: Poetry in Steel), we will plan a field trip, perhaps walking the length of the island of Jersey and along the Delaware and Raritan Canal. Beyond following the professor’s research agenda, the goal here is to have fun, to engage your imagination and adventure and wonder. Reading select chapters from books that explore the human built environment (including Looking for America on the New Jersey Turnpike and The George Washington Bridge: Poetry in Steel), we will plan a field trip, perhaps walking the length of the island of Jersey and along the Delaware and Raritan Canal. Beyond following the professor’s research agenda, the goal here is to have fun, to engage your imagination and adventure and wonder. Reading select chapters from books that explore the human built environment (including Looking for America on the New Jersey Turnpike and The George Washington Bridge: Poetry in Steel), we will plan a field trip, perhaps walking the length of the island of Jersey and along the Delaware and Raritan Canal. Beyond following the professor’s research agenda, the goal here is to have fun, to engage your imagination and adventure and wonder.

The Politics of Mandarin: Sociallinguistics and Education in China and Taiwan

Richard Simmons (Asian Languages and Cultures)

This seminar will explore the sociolinguistic issues behind the establishment of Mandarin as the Standard Language of China and Taiwan. In this seminar, we will explore the history of Mandarin and consider the following questions: How did Mandarin come to be the standard? How was the standard for Mandarin produced and promulgated through education? What are the roles of academia and government in spreading the standard? Who determines language used in the Chinese canonical works in traditional and modern China? How knowledge of Mandarin in a class environment.

When God Came to the City: Urban Life and the Transformation of Religion

Hili Sirowitz-Israel (Jewish Studies)

This course will explore urban religious life and sacred space. By focusing on urbanization, diversity, and the city-scapes, we will look at the ways that various groups worship, engage ritual, and organize in a religiously pluralistic environment. Both in class and through visits to different religious spaces, we will see how the city, the social concerns of urban environments, architecture, and religious adherents encounter one another to create a dynamic religious landscape.

Bruce Springsteen’s Theology

Azzan Yadin-Israel (Jewish Studies)

This seminar offers a theologically oriented approach to Bruce Springsteen’s lyrics. We will focus on Springsteen’s re-enactment of biblical motifs, the possibility of redemption by earthly means (women, cars, music), and his interweaving of secular and sacred elements. Springsteen’s work will also be situated within the broader poetic tradition that casts the writer as a religious figure whose message does not effect transcendent salvation, but rather, transforms earthly reality.
Smoke and Mirrors: Political Challenges to Achieving the Tobacco Endgame

Cristine Delneo (Health Education and Behavioral Science)

Political realities have allowed Big Tobacco to fend off public health law, evade regulations and use deceptive marketing practices to keep millions of Americans addicted to a deadly, deadly product. This course will examine the politics of tobacco over time. Using formerly secret internal industry documents, historical archives of popular tobacco advertisements, and discussion of the current tobacco retail landscape, students will debate Big Tobacco’s assertion that marketing restrictions to protect the public’s health violates the industry’s First Amendment rights.

R.U. Happy?

Briavel Holcomb (Bloomington School of Planning and Public Policy)

What makes you happy? What makes other people happy? In this seminar we will explore the idea of happiness from various perspectives, including ancient and modern philosophies, the field of positive psychology, the geography and economics of happiness, and the use of well-being as a measure of success in public policy. We will explore expressions of happiness in art, music, literature and poetry, and consider how cultural and gender differences affect how happiness is expressed. A communal meal will end our seminar experience.

Si se puede: Latino/a Culture, Family, Race, Ethnicity, and the College Experience

Evelia Hernandez (Psychology) and Ebelia Hernandez (Psychology)

One in four children in elementary school are Latino/a, which means that it is worthwhile to understand more about our culture, language, history, identity development, and other factors that play a role in the college experience in unique ways. In this course, students will consider how race and ethnicity may affect how we think about education, decision making, resilience in dealing with challenges, and the differences between Latino/a and others on campus. Class discussions, film viewings, and guest speakers will encourage students to think critically of the ways that society and the educational system interplay with each other, affecting access and persistence in higher education.

Success in Schools: Why Being Smart is Not Always Enough!

Ryan Kettler (Psychology) and Timothy Cleary (Psychology)

Have you ever wondered why some students struggle in school and what can be done to help these individuals? In this seminar, we provide examples of common barriers to successful learning in schools (learning disabilities, anxiety, lack of motivation, attention disorders), and describe approaches for identifying and solving these class-based problems. Through discussion and class activities, students will be introduced to the field of school psychology and the specific roles and responsibilities of professionals (school psychologists, school counselors) who work with students, teachers, and families, to enhance learning and well-being. The content of the course will provide practical information that will help students not only learn about hot-topic themes in education, but also consider the substantial role that psychology can have in school settings.

Sound Mind, Sound Body: The Last 50 Years of Intercollegiate Athletics

Carl Kirschen (Spanish and Portuguese)

The world of intercollegiate athletics has changed dramatically from the days of regional competitions without media coverage to the present national stage with television and internet coverage. What were the factors underlying the change? What role have the universities played? What role has the National Collegiate Athletic Association (NCAA) played? This seminar will review the history of intercollegiate athletics with a special emphasis on the last ten years. Significant cases of positive and negative behavior by players, coaches, and universities and the reactions (sanctions) by the NCAA will be studied.

More American than Apple Pie: An Introduction to Economics Through Submariters

Michael Lahr (Planning and Public Policy)

Many people think economics is all about money. But it isn’t; it’s about weighing different choices or alternatives against one another. This class makes economic principles more interesting via baseball illustrations. If you are from the United States, you probably already have an innate understanding of the baseball industry, simply because the sport is so steeped in our culture. Interestingly, baseball outcomes connect economic theory to human behavior in many ways. First, the individual performance of a baseball player can be measured by occupation by official industry statistics, and their salaries and demographic characteristics are publicly available. In fact, researchers actually measure the incremental contribution of players to total company revenue. Indeed, the relationship between inputs (i.e., individual performances) and company outputs (winning percentage) is predictable. Better yet, their skills are traded and vary across performance venues. Few other industries provide readily measurable productivity, have a clear linkage between inputs and outputs, and provide possibilities of exchange. In addition to the basic components of the theory of the firm, major league baseball illustrates a variety of major topics in microeconomics: collusion, antitrust, salary determination, monopolistic competition, the role of unions, the vicissitudes of day labor, and the economics of discrimination. This class will review these economic principles and some practical statistical exercises.

Putting it Together: A Presidential Administration Takes Shape

Ruth Mandy (Director, Eagleton Institute of Politics; Political Science)

It’s January 2017, the election is over and a new President is poised to take the oath of office and get to work. What happens now? In this seminar, we will explore the birth of a new administration in real time, watching as it takes shape and exploring what happens when a presidential transition takes shape. Who’s on the new president’s team both before and in the new administration? What do inaugural events signal about the president and the presidency? What, if anything, can get done in the initial weeks of the new administration? How can one establish and build relationships with Congress, the media, and the American people? We will look at past presidencies for context, but focus chiefly on the 45th POTUS.

Mama Mia! Conceptions and Constructions of Motherhood

Judith McCoyd (School of Social Work) and Shari Munch (School of Social Work)

Mama, Ma, Mommy, Mother...few words can evoke such myriad emotions ranging from affection to contempt. Mothers can drive us crazy, yet we can’t live (literally) without them. In this seminar we will examine how mothers are conceived, or how women physically, psychologically, and socially transform into mothers. Our class will also explore how motherhood is constructed, meaning how mothers view themselves and how they are viewed by society. We will consider how societal expectations of mothers and the experience of being a mother has changed dramatically over time and how mothers’ experiences vary according to larger social and economic circumstances. We will learn about moms who face difficult experiences such as postpartum depression, the birth of a medically fragile child, and even the death of a baby. Finally, our class will look at the challenges mothers face in the workplace and in financially supporting their families.

The Soul on Trial

Julien Musolino (Psychology)

Do human beings have a soul? Something that gives us free will, a moral compass, and is potentially capable of surviving the death of our physical self? A majority of people in the United States believe we do, and a wealth of popular books, articles, TV shows, and games of all stripes purport to have found convincing evidence for the existence of the soul. The current scientific consensus, however, flatly rejects any notion of “soul” or “spirit” as separable from the activity of the brain. Francis Crick, co-discoverer of the structure of DNA, explains: “You, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules.” In this seminar, we will explore these fascinating questions, reviewing evidence from biology, psychology, neuroscience, and the physical sciences. Should we give up our soul beliefs?

Between Species: Focus on the Seeing Eye® Dog

Mary Nucci (Biological Sciences)

Building upon the instructor’s more than ten years of raising Seeing Eye® puppies (and the only Rutgers puppy raiser), this seminar will focus on the role of the Seeing Eye® Dog in a technological age. As the first guide dog program in the US, this seminar will examine how this Morristown, NJ organization has brought dogs to the table through outreach and advocacy. We will examine the ways in which the Seeing Eye® Dog (1929) has adapted to new technologies in its 85 year history and consider how Seeing Eye® dogs, starting in our home state of New Jersey, are not only recognized as citizens with full participation in communities, but allow for blind citizens to be active members of our globalized world.

Fundraising for International Causes: Effectively Utilizing Crowd-Sourcing and Other Social Media for Global Causes

Ronald Quincy (School of Social Work)

In this seminar, we will examine the challenges that nonprofit organizations encounter to amass the assets and resources needed to manage their charitable and public services. Traditional and nontraditional fundraising methods will be discussed along with marketing principles. You will learn the art and science of “asking” for money, inside tips on successful grantwriting, and how to write winning fundraising proposals. The seminar will focus on how to “land the big fis.” Readings and discussions will be drawn from newsletters, journals, writings of top fundraisers, and “best practices” scholarship in this field of study. Following the course, students will be able to write grant proposals, and enhance their techniques on how to “ask” for funding.

So You Want to be a Teacher? Exploring Education in Urban Schools

Beth Ruben (Education Theory, Policy, and Administration)

Imagine you were given a hundred million dollars to use in urban schools—what would you do? In this seminar, we will think about the complexities and challenges of providing quality education for students in urban schools. What kinds of reforms are required? What kinds of policies and programs will work to further inspire teachers and students? The course combines key readings in urban education with case studies of innovative and successful educational programs in urban settings. The course will include field visits to urban schools and possible hands-on training.

Work, Identity, and Class in Latino/a New York

Aldo Lauria Santiago (Latino/a and Caribbean Studies)

Issues such as poverty, national identity, and the “ invisibility” of Latinos will be the focus of this seminar on the history of the Latino working class in New York City from 1920 to 1980. In a workshop format, students will study current research on the topic and learn about the challenges involved in conducting historical research. Topics such as analyzing census data and relating abstract concepts and cause/effect arguments to empirical materials will be discussed. Students will read archival documents, newspaper and magazine articles, and oral histories in order to discover how these sources are used in the research process.
The Politics, Power, and HERStories of LGBTQ Communities Through Film
Mark Schuster (Down of Student, Rutgers--New Brunswick)
Susan Birell and Mary McDonald define “articulation” as a barometer of our culture and we who are as social beings. The portrayal of sexually diverse communities will be interrogated through a review of films as a critical lens of the personal and the political power over human beings. Through film, this class will discuss cultural perceptions and why persons who identify as LGBTQ are often forced to hide their authentic identities. A review of films such as: Some Like It Hot, The Celluloid Closet, Boys Don’t Cry, Paris is Burning, Chang-Amy, Breakfast at Tiffany’s, Paris Amerique, and Dallas Buyer’s Club will focus on the evolution of previously “othered” communities. Bisexuality is virtually untreated in film and media criticism. This seminar will focus on the central role of bisexuality in screen culture, vampire films, “bronzies” and fluid cinema eroticism. Diverse affectional preferences will be explored in the context of films that empower all members of our very complex and evolving American identity.

Language Games and Talking Trends
Karin Stromswold (Psychology) and Kristen Syrett (Linguistics)
Despite the diversity among the thousands of languages spoken in the world, there are striking similarities in the “tricks” that people and languages use. This seminar will explore what makes human language so special, the language games we play in communicating with each other, and what happens when communication goes wrong. Questions we will address include: What makes human language distinct from animal communication? How can brain damage and disorders affect language? Why can speakers get two very different interpretations out of the exact same string of words? Why do we end up singing song lyrics that are cryptic but absurd? Are speech errors really Freudian? What kinds of strategies do we use when we wish to convey—or avoid conveying—information? We will also explore how technology relates to language—why even the simplest computer programs still mangle the simplest sentences, how technology has infiltrated the way we communicate, and how advances in technology allow us to investigate how children and adults acquire, process, and represent language.

Stigmata Non Grata: Can We End Stereotypes of Mental Illness?
James Wallach (Clinical Psychology) and Beth Angell (Social Work)
Nearly half of all Americans will meet criteria for a mental disorder at some point during their lives, yet only a fraction of them will actually seek counseling or other mental health services. One of the major reasons people avoid seeking help is because of the stigma that is associated with having a mental disorder. This seminar will explore this phenomenon of stigma from a variety of perspectives, taking up such questions as: Where does stigma originate? Why are some mental health problems more dreaded or feared than others? Do the stereotypes about mental disorders contain a kernel of truth? What, if anything, can be done to reduce or eradicate the problem of stigma?

Addiction
Mark West (Psychology)
Do people become addicted to technology? Although some students have direct or indirect experience with substance abuse, all will have experienced the lure of the iPhone, TV, web surfing, texting or playing video games. This seminar will encourage students to describe the behaviors they observe in themselves or others. We will explore the cognitive processes involved in starting, repeating or perseverating in technology related behaviors. The goal will be to discuss whether these behaviors are similar to or different from DSM-V criteria for addictive behaviors such as substance use, binge eating disorder or gambling. We will come to understand the scientific knowledge created by clinical and preclinical researchers on addictions, including the neural underpinnings of behavioral and cognitive processes of the drug user. Ultimately, students will learn to identify warning signs in themselves or others when succumbing to self-defeating behaviors related to technology.

Knowledge Brokers as Essential Links Between Science and Policy
Itzhak Yanovitzky (Communication)
Evidence-based decision-making is critical to the formulation of effective policy and practice, but despite efforts to increase the availability of research-based knowledge to decision-makers, use of research evidence has been infrequent, inconsistent, and often misapplied. Recently, the idea of “knowledge brokers” has emerged as a potentially effective mechanism for closing this gap. This idea stems from the view that much of the potential influence of science on decision-making occurs indirectly, via networks of individuals, groups, or organizations that act as powerful intermediaries. This seminar will familiarize students with the idea of knowledge brokering and how it is understood from the perspective of multiple academic disciplines and fields of practice, and engage with questions concerning the skills and competencies effective knowledge brokers must possess, the crucial functions they serve in the network of research producers with users, and how the vision of knowledge brokering may shape the future occupational landscape they are about to enter.

Can Exercise Change Your Brain?
Brandon Alderman (Exercise Sciences and Sport Studies)
Almost everyone knows that exercise is good for them, yet most people are inactive. A more effective approach to get people off the couch and moving might be to inform them of the mental and cognitive health benefits of exercise. In this seminar, we will explore the underlying neurobiological mechanisms that help to explain the beneficial effects of exercise on brain health, covering topics from depression to ADD to Alzheimer’s. We will also explore the paradoxical effect of physical inactivity despite scientific claims of a “feel better” phenomenon following exercise.

Genes, Drugs, and Models: Something Old, Something New, and a Systems View
Ioannis Androuakis (Biomedical Engineering)
The good news is that we live longer. The bad news is that we live longer. The longer we live, the sicker we may get, with some of which never existed before. At the same time, life and physical sciences are getting much better at understanding how we (humans) function, how we get sick, and how we can be treated. However, the more we learn, the more we realize there is so much we do not know. We begin to appreciate that getting sick is not as simple as one may have thought in the past and that many things, some of them somewhat vague, such as “stress,” have the ability to make us sick, or sicker. Researchers have argued that the only way we can move our understanding forward is if we start looking “at the forest” and not just “the tree.” In this seminar, students will be introduced to disciplines such as systems biology, systems medicine, and systems pharmacology, which argue that we have to consider events at the “human/host” level and look at a patient from a holistic point of view, and not only at the level of specific molecule or gene. What this requires is that we consider another level of biology and pharmacology, and systems pharmacology in sciences that we still do not know, so that we can put together all the sometimes confusing information we obtain when we study diseases, patients, and drugs and look at the entire “SYSTEM.” We will draw from our research experience and interactions with physicians, pharmacologists and biomedical scientists and engineers, to provide an overview of what might be the “next frontier” in medicine.

Radio Astronomy: Jersey Roots, Global Reach
Andrew Baker (Physics and Astronomy)
Just like Rutgers, the field of radio astronomy—the investigation of the universe and its contents through observations of radio waves—has “Jersey Roots, Global Reach.” This seminar will introduce students to the history and practice of radio astronomy with a special emphasis on discoveries made right here in New Jersey, which include the construction of the first radio telescope and the discovery of the cosmic microwave background (i.e., the afterglow of the Big Bang). Students will also learn about scientific and technological advances that were inspired by observations on those at the facility, and will have the opportunity to work with real data from a radio telescope.

Anatomy, Destiny, Myth and Metaphor: The Biology of Women
Joan Bennett (Plant Biology and Pathology; Associate Vice President for Promotion of Women in Science, Engineering, and Mathematics)
The language describing human anatomy and physiology was largely written by men. Perhaps for this reason, much of the medical jargon describing women’s bodies can be misleading or have negative connotations. This course will give a basic overview of women’s biology, and will cover male and female reproductive anatomy, the menstrual cycle and menopause, birth control, pregnancy, labor and delivery, childbirth anesthesia, lactation, sex determination, and diseases of the reproductive system. The class is meant to be a non-technical introduction to obstetrics and gynecology, with commentary of changes that have occurred in recent years. Demonstration materials will be used in each class session.

Beyond Dolphin Tales and Moby Dick: What We Know About Marine Mammals and How Do We Know It?
Patricia Buckendahl (Center of Alcohol Studies)
We have many books, movies, TV shows, plus media that describe marine mammals. Some are educational, some pure fantasy, and some highly controversial. Public opinions are varied with regard to marine mammals, whether as entertainment (Seaworld or other aquarium features), competition for fisheries (seals and sea lions versus salmon fishermin in the Northern Pacific salmon versus faro fisheries). Whaling and sealing have wide international implications, too. Research funding needed to understand these fascinating animals is in even shorter supply than for other branches of science. This class will explore some of the history, current events, and research that contribute to these opinions and our understanding of the lives of these fascinating animals.

Oysters Then and Now: Revolutionary Seafood Research at Rutgers
David Bushek (Marine and Coastal Sciences) and Daphne Murrell (Marine and Coastal Sciences)
Ever wonder where the shellfish on your plate comes from? If you are eating oysters, clams or scallops, the likely answer is New Jersey. Rutgers shellfish scientists have played a major role in the development and sustainability of the farms and fisheries that produce these delicious seafoods. From discoveries of the best harvesting techniques and intervention and control of the diseases that affect the wild populations, to genetic innovations that grow a better oyster and help protect wild ecosystems—Rutgers has been at the forefront of academic innovation of shellfish food production for over 25 years. This seminar will focus on the shellfish resources and industry in New Jersey—its history and the role that Rutgers researchers have played in helping shape it. The costs and benefits of these foods will be discussed in terms of human health, production costs, and ecological interactions. Field trips to Rutgers research facilities will allow students to explore first-hand the shellfish industry in New Jersey and the research that the renames continues today.
Stem Cells and Bioengineering
Li Cai (Biomedical Engineering)
Bioengineering and regenerative medicine seek to develop new therapies for patients with injuries and degenerative diseases. The source of cells for these therapies remains a hot topic of interest. The unlimited potential of stem cells has ignited the creativity and imagination of scientists across multiple disciplines. Future development of this technology depends on increased understanding and effective utilization of stem cells. This seminar will introduce students to the biological, biomedical, biomaterial, and bioengineering of this new discipline. Students will be introduced to the world of stem cells. We will discuss their definition, origin, and classification, as well as applications of these cells in regenerative medicine. Upon completion of this seminar, students will know the intellectual and conceptual vocabulary required to further pursue an interest in stem cell research and the regenerative medical profession.

Obesity Today: Health, Environment, and Society
Sara Campbell (Exercise Science and Sports Studies)
Obesity has become a significant health and societal issue reaching pandemic levels. Our environment appears to favor obesity and as such has been defined as “the sum of influences that the surrounding, opportunities, or conditions of life have on promoting obesity in individuals or populations.” To date, most of the strategies aimed at obesity focus on prevention and treatment, specifically pharmacological and lifestyle interventions. We will focus on investigating and understanding the environments that promote high energy intake and sedentary behavior and their physiological consequences. Students will learn about making healthy eating choices and exercise plans.

Energy is Conserved: The First Law of Thermodynamics and the Environment
Fast Celik (Chemical and Biochemical Engineering)
When your smartphone battery dies, the first thing you look for is whether or not there is an outlet. But what about the energy needed to fuel our everyday needs and luxuries? Where does it come from? In this seminar, we will explore the conversion and conservation of energy in the modern economy. We will understand primary sources of energy such as the sun, fissionable atomic nuclei, and fossil carbon, and how these sources are converted into different forms in order to make them usable for a variety of applications, including transportation, residential and commercial heating, electricity generation, and manufacturing. We will complement our study of these topics with field trips to a coal-fired power plant, a fusion energy research facility, and Rutgers’ state-of-the-art natural gas cogeneration and solar power plants.

The Hunger Frames
Gretchen Chapman (Psychology) and Peggy Pecoraro (Dining Services)
Can the framing of a situation affect what you eat? What types of environments cue you to eat healthy foods, and what contextual cues lure you into overeating or indulging in junk food? This course explores recent research that shows how redesigning the dining environment can promote healthier eating. We will meet each week at a different dining setting on campus (e.g., dining commons, take-out line, food truck, Henry’s Diner) to discuss recent studies and observe our dining environments. Combining Chapman’s expertise on the psychology of decision making and Pecoraro’s expertise in behavioral nutrition, this course highlights new research on how principles from behavioral economics and social psychology can be harnessed to promote healthy eating behavior. Students must be on a meal plan and willing to use seven meal swaps for this course.

Collapse of Civilizations
Kuang Yu Chen (Chemistry and Biological Chemistry)
Throughout history, civilizations prospered and collapsed: Minoan, Mayan, Andean, and Palaquen all suddenly collapsed at their peak, either due to a natural disaster of biblical scale or man-made disasters. In this global, digital, and big-data era, we are facing challenges of unprecedented scale: climate change, water supply, healthcare, environmental sustainability, and waste management, to name a few. If not managed well, these problems can turn into disasters capable of destroying modern civilization. This seminar will focus first on the past, asking what lessons can be learned by studying the collapse of ancient civilizations and how we can steer clear of the same fate. We will then examine urgent global issues that could lead to a similar collapse, including climate change, groundwater contamination, GDP (great pacific garbage patch), deforestation, WEEE (waste of electronics and electric equipment), and chemical waste. We will look at examples from China, Australia, and Hispaniola to illustrate the perils of an environmental disaster and its impact on the survival of global civilization.

The Role of Pharmaceuticals in Modern Health Care
John Colalizzi (Pharmacy)
What are pharmaceuticals and how do they benefit people individually and society as a whole? These and other questions are explored and answered in the context of the U.S. and global health care systems. In recognition of Rutgers’ recent 250th anniversary, the course will emphasize the major and historic role of the Pharmaceutical Industry in New Jersey’s technological and economic advancement. The course will also discuss ways to prepare for careers in the pharmaceutical industry and related healthcare fields. Controversies surrounding issues like the opioid epidemic will also be discussed.

Wars of the Future: Chemical and Biological Weapons
Donald Gerecke (Pharmacology and Toxicology)
In this seminar we will examine potential weapons of biowarfare—including biological, chemical, and nuclear weapons—from several perspectives. Topics include their mechanism of action, biological impact, detection and recognition, epidemiology, and treatment. Using risk assessment and critical thinking, we will evaluate the potential dangers and effectiveness of using these types of weapons. We will also investigate strategies for defense against attacks, and the biotechnical challenges of anti-terror research.

Spinal Cord Injury and Stem Cells: Pushing the Frontiers, Raising the Ethical Questions
Martin Grumet, Patricia Morton, and Wise Young (Cell Biology and Neurosciences)
Rutgers is home to one of the leading centers for spinal cord injury research in the nation. Drawing on the expertise of our world-class research center, this seminar will introduce students to scientific, social, and political issues related to spinal cord injury and stem cell research. Leading experts will present lectures to address the challenges and state of spinal cord injury research, clinical trials and the China SCI Clinical Trial Network, the capabilities of stem cells, and the role of public advocates in scientific research and stem cell legislation in New Jersey. Special presentations by people who have spinal cord injuries will help students understand what it is like to live with a spinal cord injury.

Traditional Organic Food and Farming Systems
Joseph Heckman (Plant Biology & Pathology)
Before supermarkets and the modern obesity crisis, we were closer to the source of our food. Fresh foods from fertile soil were consumed raw or specially prepared by fermentation. Milk, meat, and eggs were obtained from animals on pasture. Soils were maintained with compost and by keeping livestock and crops together. In this course, we will study traditional organic food and farming systems through field trips and from selected writings of organic pioneers. We will also explore the challenges and rewards of producing and preparing traditional farm fresh foods on an organic homeestead, and learn how to connect with local organic farmers to secure these nutrient rich foods.

What Is Plastics Engineering - And Why Should We Care?
Jennifer Lynch (Materials Science and Engineering) and Thomas Nosker (Materials Science and Engineering)
Americans hate to lose a battle with plastic. We often look down on plastic imitations of natural products, yet we use plastic every day—and there are more than 10,000 kinds of plastic! This seminar focuses on the importance of plastics recycling and engineering for creating structural materials. We will discuss the development of recycled plastic lumber—an advancement that resulted in structural plastic lumber—and its infrastructure applications. Advanced materials research at Rutgers has resulted in patented and licensed recycled plastic blends used in railroad ties, pilings, Hearst, bridge substructure, and decking. The seminar culminates in a field trip to a vehicular bridge in New Jersey composed of recycled plastic lumber blend or to a plant where recycled plastic lumber is manufactured.
Climate Change: Identifying Solutions Through Supply Chain Archaeology
Kevin Lyons (Supply Chain Management and Marketing Sciences)

Supply chain management and archeology are two academic disciplines that rarely cross paths. Archeology is the scientific study of past cultures and the way people lived based on the things they left behind or discarded as post-consumer waste. Supply chain management involves the movement of man-made materials as they flow from their source to end-users (customers). In this course we will explore and learn how to combine these two disciplines to research and discover opportunities to address climate change impacts by studying product life/death/cycles, consumption, and our discards. We will conduct in-class and virtual archaeological digs at waste and dumpsites globally to look for climate impacts, while identifying new eco-product design solutions.

Water Resources Engineering: A Close-Up Look at the Raritan River
Monica Mazurek (Civil and Environmental Engineering)

Water resources have been essential infrastructure for societies setting along the eastern coast of the United States. In particular, the Raritan River and its watershed has been crucial for the growth of commerce and communities in Northern New Jersey since before the American Revolution. This course combines field trips along the Delaware–Raritan Canal to examine hydrologic and chemical properties of the Raritan River. We will view US Geological Survey monitoring sites along the Raritan, examine water quality/water quantity parameters, and visit a drinking water treatment plant. We will explore Raritan River water property data using Geospatial Information Software (GIS) to understand the hydrologic and chemical information needed to manage the Raritan River as an essential regional resource for the present and future.

Experimental Physiology
Gary Merrill (Biology and Neuroscience)

Physiology is a classic natural science. It is recognized by the Nobel Committee, in part, through the annual Nobel Prize in Physiology or Medicine. For example, Solomon Wilks had awarded the Nobel Prize in Physiology or Medicine in 1952 for his discovery of streptomycin, the first antibiotic (“top down”) influences. Examples will include an “ever-ascending pitch illusion,” the “hollow mask illusion,” striking 3D art pieces (“reverspectives”) that appear to move as one moves in front of them, as well as some of the instructor’s own illusions. One of the classes will be a guided tour of the Zimmerli Museum.

Global Environmental Health: Rutgers’ Global Reach
Mark Robson (Kinesiology; Plant Biology and Pathology)

The world uses over five trillion tons of pesticides every year, and twenty percent of these chemicals are used in the U.S., largely for agriculture. What are the consequences of pesticide exposure for human health and the overall health of our planet? In this seminar, we will discuss global environmental health issues, in particular those dealing with problems such as water and air pollution, food production and safety, and infectious and occupational diseases. Professor Robson will share experiences from developing countries in Southeast Asia and West Africa. Case studies and current research will be used as illustrations.

Radioactivity: What It Means for You
Stephen Schneiter (Physics and Astronomy)

Radioactivity plays an important role in our everyday lives and impacts important societal decisions regarding our environment and climate. It is important that the public be well informed about what radioactivity is and the effects it has on us. Despite its importance, there is a great deal of ignorance and misinformation surrounding radioactivity. In this seminar, we will explore the underlying nature of radioactivity. We will investigate its health and environmental effects and we will discuss its actual use as opposed to imagined, dangers. We will also learn some little known, amusing facts about radioactivity, including the origin of helium used in party balloons.

Introduction to Chaos and Pattern Formation
Troy Shinbrot (Biomedical Engineering)

In this seminar we will discuss several examples of chaos and pattern formation, and simulated shock. In this course, students will be exposed to a combination of lectures on classic cardiovascular physiology, discussion of related topics of interest to medicine, and innocuous experiments designed to improve one’s appreciation for the human cardiovascular system and how to care for it.

Illusions: A Royal Path to Brain Research
Thomas Papathomas (Biomedical Engineering; Laboratory for Vision Research; UA Dean)

In the famous “figure-ground” drawing, a black-and-white image appears to be both a vase or two profiles facing each other. Which is it? The answer depends on factors we will study in this course. This seminar presents an interdisciplinary approach to brain research using visual and auditory illusions. First, we will examine how the brain organizes information that it gathers through sight and sound by using psychophysical methods and brain imaging. Next, we will use illusions in vision and audition to test the hypothesis that perception is not only an automatic, data-driven (“bottom up”) process, but it is also schema-driven (“top down”) influences. Examples will include an “ever-ascending pitch illusion,” the “hollow mask illusion,” striking 3D art pieces (“reverspectives”) that appear to move as one moves in front of them, as well as some of the instructor’s own illusions. One of the classes will be a guided tour of the Zimmerli Museum.

The Climate Change Debate: Is it Knowledge or Politics?
Elisabeth Sikes (Marine and Coastal Science) and Cynnie Payne (Human Ecology)

Ninety-seven percent of scientists agree climate change exists; it is human-caused, we can do something about it. Why haven’t we solved the problem? Scientists might say “politics have gotten in the way of the knowledge!”—Politicians might say “how does this affect my constituents?”—Lawyers might say “once you’ve decided what the problem is, let me know: I can help you organize the behavior of billions of people.” What do you think? What do you know? Why do you think you know it? We will explore the current climate science, the link between science, law, and what the global community wants. We will do this through discussion, reading and virtual visits to oceanographic sea cruises, labs and international negotiation sessions. We will see where our knowledge comes from and how it’s used to understand global warming and address its drivers and consequences.

Food for the 21st Century: Can We Feed 11 Billion People?
Paul Takhtison (Food Science)

Feeding the world’s growing population is not an easy task. It is estimated that there will be 11 billion people on the planet by 2050. Can we produce enough food for all people sustainably and can we afford it? With modern science and technologies the food industry has gained a whole new set of tools to improve certain properties of food and associated processes that are necessary for food production. However, food production should never come at the expense of human health. In this seminar we will discuss principles of the food supply chain, the modern approaches to design food products, and the ways to create a sustainable food future. We will also discuss applicability of new sustainable sources of food such as algae, insects and biologically derived polysaccharides as food supplements. During the course, students will have an opportunity to prepare some formulations using new food materials and technologies, such as edible films, 3D printing, and more.

Green-Fluorescent Protein: Applications of this Amazing Protein
William Ward (Biochemistry and Microbiology)

Green-fluorescent protein (GFP) is one of the most important reporter proteins in all of biology and biotechnology. Unlike the chromoproteins, hemoglobin, cytochrome C, and chlorophyll-containing plant proteins, GFP is the only chromoprotein that makes its own chromoprotein. In this seminar, we will discuss the importance of this feature for molecular biologists who can genetically label any colorless protein, or any cell, tissue, organ, or organism with a single gene that codes for GFP. For example, labeling cancer cells with the GFP gene allows a scientist to follow metastasis wherever the cancer cells move. The label is genetically replicated, so progeny cells are brilliantly fluorescent. You may have seen photographs of fluorescent plants, fish, pigs, or cats. More than just novelties, these fluorescent plants and animals produce offspring that are equally fluorescent. Join this seminar for an opportunity to work with an expert in the biochemistry of GFP.

Metabolism: from Lavender to Metabolomics
Malcolm Watford (Nutritional Sciences)

How often have you heard the statement “I am fat because I have a slow metabolism”? In this course we will study all aspects of metabolism from the first studies of Lavoisier in 1776, when he placed a guinea pig named Gina, in a calorimeter, to the present day field of Metabolomics. We will consider how metabolism is changed in conditions such as obesity, diabetes, and cancer, and how understanding such changes may lead to innovative treatments. Each topic will begin with some historical details, but the main part of our discussions will focus on the potential of individualized medicine and nutrition to maintain a healthy metabolism. Topics will include Brown Fat, the fat that makes you thin; Leptin, the cue for obesity (that wasn’t); the Warburg effect in Cancer cells; and treatment of diabetes by gene therapy to change metabolism. The answer to the opening question posed here? A slow metabolism is not the reason you are fat, the evidence for which will be discussed in class.

Harry Potter and Potions-Making Science
Lei Yu (Genetics and Center of Alcohol Studies) and Ying Sun (Visiting Professor, Center of Alcohol Studies)

Humans have been using nature-made ingredients (herbs, extracts of plants and animals, and minerals) to treat various diseases and disorders since ancient times. In modern day science, medicine-making is one of the largest industries and job markets for the college-educated. In this seminar, we will use examples of potion-making from the Harry Potter book series as a literary platform to introduce scientific approaches for medicine-making science and processes. This class will involve extensive class participation and discussion. The focus will be to introduce the students to medical research and to develop skills in critical thinking.
ABOUT BYRNE SEMINARS

The First-Year Seminars at Rutgers–New Brunswick were launched in fall 2007, and the program was re-named the Byrne First-Year Seminars in fall 2008 to honor a generous donation by Mr. and Mrs. John J. Byrne. Mr. “Jack” Byrne graduated from Rutgers College in 1954. Byrne Seminars were created to realize the Byrne family vision of introducing students to research faculty in a small seminar setting at the outset of their academic journey.

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