Ever since Homer's *Odyssey*—or even Gilgamesh before—rendered life as an epic journey, metaphors of the road have served to frame life's experiences. Vision quests and pilgrimages to sacred shrines have stood in for semi-autonomous quests for meaning, happiness, and/or fulfillment, and an individual's exploration into the unknown—the wilds of the frontier, the depths of the ocean, or the vastness of space—have become odysseys attached to whole nations. Often self-exploration, the turn inward—religious or psychological—raises specters of the "road not taken." And during the 1960s, getting lost was hailed as the only way to find oneself.
Odysseys Past and Present: Migrations, Pilgrimages, and Quests

Ever since Homer’s *Odyssey*—or even Gilgamesh before—rendered life as an epic journey, metaphors of the road have served to frame life’s experiences. Vision quests and pilgrimages to sacred shrines have stood in for semi-autonomous quests for meaning, happiness, and/or fulfillment, and an individual’s exploration into the unknown—the wilds of the frontier, the depths of the ocean, or the vastness of space—have become odysseys attached to whole nations. Often self-exploration, the turn inward—religious or psychological—raises specters of the “road not taken.” And during the 1960s, getting lost was hailed as the only way to find oneself.

In the academy, scientists explain their disciplines as part of a continuum—a path that leads from the past, through the present, and onward into the future. Romanticism, one of the most influential aesthetic movements in Western history, took shape around metaphors of wandering, both literally and intellectually. Archaeology and anthropology are built on the connection between past and present. Paleontology, biology, and genetics often explain mechanisms of change in terms of routes, roads, progress, or evolutions.

What is it about these journeys and wanderings that speak to the human experience? Why are they so often used as metaphors for life? What do they help us uncover about ourselves? And how are our communities and nations—and knowledge itself—transformed through these travels, both literal and intellectual? Over the next year, Byrne First-Year Seminars invite you to take up the themes of journeys, odysseys, pilgrimages, and quests, and to examine how they provide maps and markers for our own explorations.
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Office of Undergraduate Academic Affairs
From the Interim Vice Chancellor for Undergraduate Academic Affairs

With the generous support of Mr. and Mrs. John J. Byrne, Jr., we developed the Byrne Seminars to give first-year students an opportunity to work closely with tenured faculty and a small group of peers at the outset of their college careers. In the 180 Byrne Seminars being offered this year, incoming students will gather in classrooms and labs, in studios and theaters, in museums and galleries, and in the field, where research is a hands-on venture. As a Byrne student, you will work one-on-one and in small peer groups with a professor in his or her area of research.

We designed these one-credit courses — with correspondingly lighter workloads — to offer you a low-stakes way to explore fields of study outside your comfort zone. Yet, while the stakes are low in terms of credits and grades, the rewards couldn't be higher. Byrne Seminars engage you directly with knowledge on the ground. You will see how international experts transform theory into lived practice, in medicine and the sciences, in the social sciences, the humanities, and the performing arts, and in business, technology, and the law. Perhaps most importantly, you will experience education not as something you acquire from a book, but as something you do.

If this were all they had to offer, the Byrne Seminars would more than fulfill their educational purpose and our expectations. But the benefits don't end here. Graduating seniors who took a Byrne Seminar in their first year report that getting to know and study with a professor had a profound impact on their collegiate experience. Many tell us that through their first-year seminar they forged an intimate community of friends with whom they continue to share the academic challenges of college life and beyond, and marvel at the difference their Byrne professors made in shaping the career paths that they later chose.

Such success and excitement has hardly been one-sided. Many faculty continually confide how much they enjoy serving as mentors to students they first encountered in a Byrne Seminar. Five years after we initiated this program, we are more certain than ever of the vital role these unique first-year seminars play in helping students make the transition from high school to college and in building an intimate intellectual and social community in what can seem, at least initially, like a dauntingly large and impersonal environment.

If I may offer any final advice: sapere aude. Dare to know! Many Byrne students report that their seminars occasioned the opportunity to try a field that they might otherwise not have tried. So we challenge you to pursue a whim, find a topic that makes you say, “I’ve always wanted to try this!” or “I want to know more about that.” Byrne Seminars are an important part of how we welcome you to Rutgers, to the career before you, and to the kind of life enrichment that we’re certain the love of learning brings.

Gregory S. Jackson
Interim Vice Chancellor
Undergraduate Academic Affairs
What are the 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 through WebReg starting in April. 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 mullis@oldqueens.rutgers.edu or call 848-932-8273. You can also visit our website: byrne.rutgers.edu.
High-Tech Sustainability: Food for Thought  
A. J. Both (Environmental Science)  
You’ve probably heard the slogan “Buy Local” and know about the growing popularity of urban gardening and farmer’s markets around the U.S. The Obamas have even planted a vegetable garden at the White House as part of this movement. But how can we maintain a safe, year-round supply of food and flowering plants in the face of increased energy costs, food safety concerns, and environmental issues? In this timely seminar, you will learn the fundamentals of growing plants in controlled environments such as greenhouses. In particular, we’ll investigate the challenges and opportunities associated with sustainable greenhouse production. We’ll visit greenhouse facilities on Cook Campus, learn about different greenhouse production systems, and work in teams to present a topic for class discussion on issues related to controlled environment plant production.

11:090:101 section 01 index 28775

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.

01:090:101 section 24 index 28113

Topics in Addiction: Why Is It Hard to Just Say No?  
Valerie Johnson (Center of Alcohol Studies)  
Team-taught by a group of faculty affiliated with the internationally recognized Rutgers Center of Alcohol Studies (CAS), this seminar explores controversial issues surrounding addictive behaviors, especially as they affect contemporary college students. Topics include drugs and sports, random drug testing, the legal drinking age, drug-use decriminalization, alcohol advertising, risky behaviors, and addiction treatments. Through discussion and debate, we will develop a broad context for understanding both addiction and efforts to address this personal, social, and public health problem. The course highlights research in addictions and the tools needed to research and evaluate both scientific and mass-market information. As a class, we will tour the CAS research laboratories and library. Students who take the seminar may be invited to participate in ongoing CAS research projects the following semester.

01:090:101 section 44 index 28810

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. Archaeology 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 learn how to combine these two disciplines to research and discover opportunities in order 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.

01:090:101 section 57 index 36516
EOF BYRNE SEMINARS
OPEN TO FIRST-YEAR EOF STUDENTS

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 First-Year Seminars Program is pleased to offer new Byrne Seminars this term specifically designed for incoming SAS EOF students.

**Passion, Power, Politics**

Wally Torian (Assistant Dean, School of Arts and Sciences EOF Program)

This seminar will explore current political issues that are relevant to EOF students, and educate them about their impact on the campus community, the City of New Brunswick, the state of New Jersey, and the nation. Through class discussion, scholarly research, discussions with student leaders, and guest speakers, students will gain an understanding of the various political issues relating to: student activism, education, poverty, crime, drug use, and immigration. As part of this seminar, students will visit the Office of the Secretary of Higher Education in Trenton to meet and speak directly to executive staff and get a first-hand perspective on the role that EOF, as a 50 year old institution, has had in shaping New Jersey’s past and present.

01:090:101 section 84 index 37299

**From Your Street to Wall Street**

Eddie Manning (Associate Dean, School of Arts and Sciences EOF Program)

This seminar will provide students with a fundamental and practical understanding of how money and finances work. Through lectures, videos, readings, discussions, group activities, and skill-building exercises, students will explore issues related to: personal finances, financial planning, insurance, credit cards/credit scores, student loans, investment, banking, and of course, taxes. The course will culminate with a panel discussion by EOF Alumni from the fields of banking, finance, insurance, labor relations, marketing, and management.

01:090:101 section 99 index 38504

**Growing STEM Majors: Pursuing Careers that Bloom**

Vicki Brooks (Assistant Dean, School of Arts and Sciences EOF Program)

Far too many students begin their higher education experience with the intention of pursuing STEM careers (physicians, engineers, etc.), only to become discouraged and disillusioned when confronted with the extraordinary academic preparation and financial obstacles these majors require. Through the process of career exploration and self-examination, students will gauge their interests and aptitudes in emerging careers in fields related to Science, Technology, Engineering, and Mathematics. Through readings, lectures, guest speakers, and field experiences, students will learn about traditional and emerging technologies, and about jobs, careers, and professions that currently exist, including those that will come about as a result of them. As part of the course experience, students will take a special tour of the W. M. Keck Center for Collaborative Neuroscience/The Spinal Cord Injury Project. During the visit, they will meet and interview Dr. Wise Young, a world-renown neuroscientist and leader in the field of spinal cord injury research, about the multitude of different STEM fields involved in finding a cure for spinal cord injuries.

01:090:101 section 98 index 38503
FIRST-YEAR SEMINARS
OPEN TO FIRST-YEAR STUDENTS

HUMANITIES

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 rhetorics.” Of course, we will do some walking of our own as well.

01:090:101 section 03 index 29618

The “Way of the Lord” in the Hebrew Bible, New Testament, and Dead Sea Scrolls
Debra Ballentine (Religion)
What is the “Way of the Lord”? The biblical prophet Isaiah uses the “Way of the Lord” to talk about Judeans returning from Babylonian exile in 538 BCE. Authors of the Dead Sea Scrolls said that the “Way of the Lord” was the path through the desert to their community as well as their way of life. Writers of the New Testament gospels use the “Way of the Lord” to talk about the teachings of John the Baptist and Jesus. Why was the notion of the “Way of the Lord” such a powerful idea to ancient Judaean writers in such a variety of historical and social contexts? How is this “way” a physical road or path – returning home from exile or towards a new home in the desert? How is this “way” also used as a metaphor for a variety of theological claims? In this seminar, we will read passages from ancient Judaean literature and discuss how authors adapted traditional religious ideas within new social contexts.

01:090:101 section 04 index 37253

You Are What You Speak
Louise Barnett (American Studies)
This seminar is designed to increase awareness of the dynamics of conversation, of “speech acts” and hidden messages, the influence of gender, assertiveness in speaking, manipulation through speech, and different verbal strokes for different folks—to name a few of the aspects of speech we’ll examine. Students learn the meaning of “linguistic capital” and the “CP,” the cooperative principle of conversation. This topic lends itself to every area of life, and this seminar will concentrate on talk, both its social and personal dimensions. We will read some sociolinguistics and some fiction. Expect to learn things you didn’t know about why you say what you do, why other speakers please or irritate, and how gender and “social capital” affect speech. This seminar will also travel to NYC and enjoy an off-Broadway play.

01:090:101 section 05 index 37253

Wanderers and Walkers in German Literature
Nicola Behrmann (German)
This seminar explores various figures of wandering and walking as pathways for unresolved inner conflicts that can be found in a range of German literature ranging from early 19th to early 20th century: Ludwig Tieck’s “Der Runenberg,” Georg Büchner’s Thus Spoke Zarathustra, Richard Wagner’s opera The Flying Dutchman, Friedrich Nietzsche’s Thus Spoke Zarathustra, Robert Walser’s The Walk, and Franz Kafka’s Amerika. We will consider the textual movement of straying, strolling, stumbling, and, at times, running under the auspices of Freud’s seminal text on “Mourning and Melancholia.” We will also discuss our readings in regard to models of walking and wandering in American literature and pop culture.

01:090:101 section 06 index 32009

Dramatic Odysseys
Matthew Buckley (English)
Drama has often turned to the journey as a symbol of life and of change, of the progress of the soul, or of the world. In this seminar we’ll take a glimpse at some of the most interesting and significant “journey plays” written over the last 2500 years. Our readings will include Sophocles’ strange Greek satyr drama, The Trackers; the Obergammerau Passion Play, a German town’s 1634 dramatization of the life and death of Jesus made and performed every ten years, even today, to thank God for deliverance from the Bubonic Plague; Ernst Toller’s unforgettable anti-war drama of 1919, The Transfiguration;
and Eugene O’Neill’s *Emperor Jones* (1920), a landmark of the American stage, in which the nightmarish flight of a deposed, African-American island despot refigures the tortured history of his race. Along the way we’ll explore not only how journeys are represented in plays, but the long odyssey of drama itself, from antiquity to the present day. Reading will not be excessive, and no prior knowledge of drama is needed.

01:090:101 section 09 index 28103

**Oral History and the American Experience in World War II**

John Chambers (History) and Shaun Illingworth (Director, Rutgers Oral History Archives)

Focusing on the remembered and represented experiences of Americans during the Second World War, this seminar introduces students to oral history of the common people as a methodology for helping to reconstruct the social and cultural history of the past. With the acclaimed Rutgers Oral History Archives, students will learn about conducting and evaluating interviews. Students will explore written and visual representations of World War II and have a chance to discuss the wartime experience in person with a guest veteran or person from the home front.

01:090:101 section 10 index 37269

**Yankee Stadium**

Theresa Collins (Thomas 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 the pluses and minuses of urban development, the relationship between public finance and private enterprise, and the flexible, situational character of change and tradition. Students will explore potential topics and methods for their own research development.

01:090:101 section 14 index 28105

**Sacred Numbers and Living Architecture**

Frederick Curry (Dance) and Jeffrey Friedman (Dance)

We will read, discuss, and play with a variety of cultural frames for number, measurement, geometry, and applications of those concepts to architecture and city planning, including Southeast Asian, East Asian, British, and Celtic geomantic traditions. We will explore how number has a powerful effect on how we perceive and make order out of the world. Within a framework for movement studies originated by Rudolf Laban, we will also examine and embody the “living architecture” of the human body, including bony “landmarks,” connectivity patterns, and the architecture of our personal movement space as it interconnects with a sense of number, counting, measurement, and geometry within the body.

01:090:101 section 27 index 28116

**Music, Performance, and History**

Rebecca Cypess (Music)

Performers of Western classical music draw upon a wide range of tools to inform their interpretations. For some, the written scores need to be supplemented only with skills and ideas learned from teachers. In recent decades, however, a movement has arisen to supplement or even circumvent this received tradition, through the use of the historical instruments for which the music was composed, and through reference to period writings that explain how the music was performed. For practitioners of the so-called Historical Performance movement, these instruments and writings offer a new perspective on early music—one that for many listeners has given these austere works a second life. This course will explore the relationship between performance and history in the practice of early music. We will discuss the aesthetics of “authenticity,” and the viability and desirability of understanding the composer’s intentions. Through guided reading and listening, attendance at concerts, and experimentation with some of the instruments themselves, we will try to discern what the Historical Performance movement is after and what it gains through the use of these unconventional sources.

01:090:101 section 17 index 28107

**Moving Pictures: Thinking Through Images**

Richard Dienst (English)

In contemporary culture, pictures move like never before. Beyond cinema and television, images now move through computers, phones, iPods, and anything else with a camera or a screen. This seminar is designed to help students better understand this rich ecology of images. The course will start with basic questions about photography, movement, and time, leading toward practical experiments concerning the images we encounter in everyday life. You will be asked to write commentaries as well as create your own images.

01:090:101 section 21 index 28110

**The Curious Rise of Democracy’s Ghost: Anarchism**

Uri Eisenzweig (French)

Few political notions are used as carelessly and randomly as “anarchism.” And yet, the concept has a deep philosophical and political meaning that goes back to the nineteenth century and the ideas of thinkers such as Proudhon, Stirner, and Bakunin. We
will examine some of these ideas and try to make sense of the socio-historical and cultural environment that saw their rise. In particular, we will focus on the way anarchism quickly became the embodiment of a diffuse fear of chaos and violence in Western society.

01:090:101 section 22 index 28111

The Culture of Clothing: Global Perspectives in Contemporary Ethnic Style
Vickie Esposito (Theater Arts)
American costume and fashion students spend the majority of their time studying Western World Clothing (the history of our own culture). In our contemporary world there are many other ethnic fashion influences in our lives that can be seen by simply looking at the daily headline pictures in the New York Times. Aspects of what is referred to as Third World Culture are seen throughout our nation on college campuses, ethnic enclaves, and on the streets of our cities. The literature of current and future generations will reflect these influences in books, art, music, dance, and of course, film and theater. In this seminar, we will gain a general working knowledge of what we call ethnic garments or specialized clothing, as we explore the specialized clothing of our nation such as Amish, Native American, and Western attire.

01:090:101 section 23 index 28112

Musical Poetry: Exploring 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 the art song, we will explore the close relationship between text and music, pianist and singer. No special skills are required to participate—just an open mind and ear. Explorations will include listening and responding to musical settings of poetry by Goethe, Heine, Verlaine, Dickinson, Shakespeare, and others that will increase the students’ understanding of performance, text-setting, and musical style. The class may have the option of attending a live art song recital performance sometime during the semester, as opportunities arise.

01:090:101 section 29 index 37273

The Impact and Reach of Visual Culture: A Trans-National Approach
Fakhri Haghani (Middle Eastern Studies)
In this seminar, we will examine the impact and reach of visual culture, as it conveys layers of meaning—both within and outside of the society being represented. We will look at materials such as paintings, photographs, films, televised and online advertisements, cartoons, video clips, street art, maps, and video games. In particular, we will focus on the visual culture of the United States and the countries of the Middle East and Europe, while keeping a broader trans-national perspective in mind.

01:090:101 section 30 index 28118

This is Your Brain on the Internet: The Web and the Future of Education
Paul Hammond (Assistant Vice Chancellor, Undergraduate Academic Affairs)
The World Wide Web has changed the landscape in every sector of our economy and has laid to waste industries and institutions hitherto considered invulnerable, including newspaper and print publishing, the postal service, and the record and movie industries. Yet, higher education, which is supposed to train us to live and work in this new environment, has been remarkably slow in adapting to the realities of a digital world. What does the work of the academy look like—the material we use to prepare for classes and the research studies we compose in these classes—when the destination for thought is no longer the printed page but the liquid crystal display? In this class, we will explore the greatest library that humans have ever created—a library that you have helped to build—to change the way we learn. Field trips will include visits to lecture halls at universities around the globe, tours of the world’s greatest museums, and an underwater expedition along the Great Barrier Reef—all without leaving New Brunswick.

01:090:101 section 31 index 28119

Twilight, True Blood, and The Walking Dead: What's with Popular Culture's Fascination with the Undead?
Gregory Jackson (Interim Vice Chancellor, Academic Affairs; English)
Books, television shows, and movies about zombies, corpse possession, and vampires have dominated the landscape of popular culture in recent years. But our current fascination with death and the undead is actually nothing new. Indeed, as you will learn during the course of this Byrne Seminar, the seeds of this seemingly contemporary obsession can be traced back to the medieval cult of death, to the dances of the dead, transey tombs where audiences stared down on decomposing bodies, and gruesome examples of momento mori. In this seminar, we will study the origins of the undead in popular culture by beginning with 18th-century gothic literature, before moving into the next century, where the classic conception of vampires and zombies began to take shape in works such as Mary Shelley’s Frankenstein and Bram Stoker’s Dracula. Then we will trace how this history of death and the undead has manifested itself in modern culture in films like Twilight and Lost Boys, and in TV shows like The Walking Dead and True Blood. At the core of popular culture’s obsession with death and the undead is our fascination with fear and being afraid, and the mechanisms that highlight
the difference between terror and horror. Join us for a tour of the occult.

01:090:101 section 38 index 29625
01:090:101 section 39 index 37284

Religion and the Origins of Political Order
Tao Jiang (Religion)

This seminar will examine the role of 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 of 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.

01:090:101 section 41 index 28726

How Beethoven Composed
Douglas Johnson (Music)

Beethoven’s life story—the deaf composer who heroically overcame adversity—has become the stuff of myth, and his music is everywhere in our culture. The Fifth Symphony and the Ode to Joy of the Ninth Symphony are familiar even to people who never attend classical music concerts. Beyond the universal message of those and other works, Beethoven’s music is organized in a way that came to define the goals of composition for the 19th and much of the 20th centuries. It was analyzed endlessly and cited as a model of the way music should be constructed. What is it about Beethoven’s music that gave it the authority of scripture? In this seminar we’ll discuss what was new and how Beethoven achieved it. This will require that we look at examples of his compositional process as documented in his sketches, which survive on thousands of manuscript pages. We’ll see what he wrote down (and talk about what he didn’t). We’ll look at transcriptions, but we’ll also see if we can decipher Beethoven’s musical handwriting. And we’ll contemplate the differences between the sketched versions and the final work. The only prerequisite for this course is an ability to read musical notation.

01:090:101 section 43 index 30849

Anatomy of a Broadway Play
Marshall Jones III (Theater Arts)

Have you attended a Broadway play? Do you wonder about the steps it takes from audition to full-scale production? In this seminar we will examine a current show on Broadway from “soup to nuts,” that is, we’ll cover everything about the production of our chosen Broadway specimen including: reading and analyzing the script; understanding the director’s concept; casting; designing sets, costumes, and lights; promoting and publicizing; managing and budgeting; and more. Our course will culminate with a trip to New York City to see the Broadway show that we’ve chosen to focus on in the seminar.

01:090:101 section 45 index 29627

Darwin in Detail: What He Said and Why It Matters
George Levine (English)

The primary work of this seminar will be to understand what Charles Darwin said in *On the Origin of Species*, not in a broad popular way, but in its details. How was it written? Why was it written that way? What are the implications of how it was written for important cultural matters, such as religion and ethics? Students will be asked to keep track of the way Darwin is mentioned outside the classroom, among friends, on the web, on TV, and in newspapers and magazines. We will also consider whether the common sense of 160 years ago that saw the world as designed has been entirely replaced by a common sense that sees it as the product of mindless processes of nature.

01:090:101 section 54 index 28128

“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, Unemployed 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 1929, became policy by 1939. 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.

01:090:101 section 58 index 30908

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 consoled 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.

01:090:101 section 59 index 29668

What is a Book?
Meredith McGill (English)
The rise of digital media has prompted some to proclaim that the book is dead or in its last throes. But books are a remarkably robust technology; they have adapted to the demands of time for over 500 years. In this seminar, you’ll learn the basics of how books are made, from the early modern period to the present day. We’ll visit rare book collections to examine a wide range of printed objects. We’ll discuss artists’ books and avant-garde book art, as well as e-books and the digital afterlife of print.

01:090:101 section 60 index 32064

Place and Displacement: American Indian Narratives of Homing and Removal
Angela Mullis (Director, Byrne First-Year Seminars)
Since the beginning of the “Native American Renaissance” in the 1960s, American Indian 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 American Indians. 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 section 61 index 32111

Songs of Travel: Looking for Your Voice
Judith Nicosia (Music)
Using Ralph Vaughan Williams’ “Songs of Travel” cycle as a starting point, students will explore the song literature of composers from Franz Schubert to Libby Larsen. We will look at the poetry they chose and how they demonstrate in song the images of wandering and self-discovery. Along the way, we will experience how the human voice develops in its journey from childhood to adulthood and how changes in the smallest musical instrument influence both how we communicate and where the journey takes us.

01:090:101 section 62 index 36963

Living with Gypsies: Visual Journeys
Ethel Brooks (Women’s and Gender Studies)
Most people know Romanis as “Gypsies” – as fortunetellers, thieves, and nomads on one hand, and as free spirits, dancers, and musicians on the other. Living as a travelling community without fixed borders, Romanis have often been seen as a national disruption. This negative stereotype paves the way for violence against Romani people – from enslavement in Romania, to the genocide of the Holocaust, and even to current campaigns of forced sterilization, mass fingerprinting, and firebombing. In this seminar, through an in-depth exploration of their everyday life and culture, we’ll explore why Romanis have so often been viewed as perpetual outsiders and what it might mean to “be” a Romani. We’ll examine readings, films, and online resources; and also take a field trip to either the Gypsy Human Rights Film Festival or the Django Reinhardt Jazz Festival.

01:090:101 section 63 index 32111

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01:090:101 section 08 index 28102
The Journey Motif in Ancient Literature
Gary Rendsburg (Jewish Studies)
The world’s oldest literature comes from the ancient Near East – and among the oldest and most widespread themes in that literary corpus is the journey motif. In this seminar we will read the ancient stories, including the Gilgamesh Epic (Babylonia), the Tale of Sinuhe (Egypt), the Tale of the Shipwrecked Sailor (Egypt), the Kret Epic (Canaan), and the account of Israel’s journey as embodied in the Torah. We will note how the ancient Near Eastern epics, along with the Odyssey, clearly the most famous instance of the journey motif in ancient literature, focus on individuals (Gilgamesh, Sinuhe, Odysseus, etc.), while the Israelite narrative focuses on the people as a whole. Not only do these narratives share the journey motif, they all culminate in the nostos, or homecoming – thereby providing us with crucial information regarding the essential ethos of the ancient Near Eastern and eastern Mediterranean peoples.

Faust and His Transformations: From Page to Stage to Big Screen
Nicholas Rennie (German)
This course investigates the theme of a human being who wagers it all in order to transform his own life along with the world he inhabits, focusing in particular on the dramatic masterpiece by Goethe. We will also look at how this theme inspired other writers and artists to experiment in their own mediums – from the development of the fledgling medium of movable-type print in the Renaissance, to recent experiments in film.

Acts of the Imagination: Exploring Creativity through Improvisation and Play
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 will include a field trip to New York City for a performance.

The Quest for Friendship in Japan: A Cross-Cultural Inquiry
Paul Schalow (Asian Language and Cultures)
The quest for friendship could be understood as a product of the human need to be understood and appreciated by another human being. At first glance, it seems a natural and unproblematic part of human experience. But, when dealing with friendship in other cultures, the concept of friendship becomes surprisingly complex. Drawing on a variety of Japanese literary and cinematic representations of friendship, this seminar will explore themes such as friendship’s universality versus cultural specificity, its relationship to the homoerotic, and its special manifestation in warrior culture. Students will draw on their own experience of friendship in class discussion and share their knowledge of how friendship is represented in other literary and cinematic traditions.

From Personal Ads to Body Politics: On the Narratives of Sexuality
Ben Sifuentes-Jáuregui (American Studies)
How do we tell and perform the stories of our sexuality? And what do those stories tell about who we are as individuals or as members of society? In this seminar, we will analyze literary and theoretical works as well as popular culture items and films to understand how sexuality is narrated. How does the form and context of sexual narratives create the notion of the “subject”? Moreover, how are stories of sexuality used to articulate and shape sexual politics? We will pay close attention to psychoanalytic theory, to discussions of how we “perform” our genders in society, and to theories of the body. Readings include short works by Freud, James Baldwin, Feliberto Hernandez, Angela Carter, and others. Films include Ozpetek’s Facing Windows, Barbato and Bailey’s Inside Deep Throat, and music videos by 50-Cent, Lil’ Kim, and Eminem.

God, Ritual, and the City
Hilit Surowitz-Israel (Jewish Studies)
This course will explore urban religious life and sacred space. By focusing on urbanization, diversity, and the city-scape, 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.

The Visual Culture of the Middle Ages
Erik Thuno (Art History)
This course will follow a trajectory through the visual arts of the Middle Ages in the European city-scape, 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.
Ages (300-1300), examining some of the most hotly debated themes in medieval art history. Each class is dedicated to a theme central to the visual culture of the Middle Ages across the Mediterranean. Some themes we will explore include: Icon, Pilgrimage, Narrative, Iconoclasm, Book, Performance, Reliquary, Vision, and Materiality. The central purpose of this seminar is to become familiar with the most typical objects, devotional practices, and ways of seeing and materializing the invisible God during the Middle Ages.

**01:090:101 section 90 index 37407**

**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 reinterpretation 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.

**01:090:101 section 95 index 37413**

**What Do Corporations Owe Society?**

Mark Aakhus (Communication)

The social responsibility of business is to increase its profits, according to one of Rutgers’ most famous and influential graduates, the Nobel-Prize-winning economist Milton Friedman. Or is it? What do you think? Everyone in the world has a stake in answering this question because the conduct of business is central to the quality of our everyday life and planet: from the products we purchase—for example, seafood, toys, pet food, gasoline, pharmaceuticals—and the Earth’s resources used in making those products, to the type of work we do. In this seminar, we will examine the words and actions of modern corporations as they respond to pressures from government and consumer groups who demand more responsibility. In particular, we will explore how they communicate their social responsibility to us.

**01:090:101 section 01 index 28098**

**Democratic Capitalism**

Joseph Blasi and Douglas Kruse (Human Resource Management)

How can the American economy have both broader ownership of wealth and be efficient? Using discussion and film, we will explore the most effective and just way to organize an economy in light of the recent economic crisis. We’ll look at broad-based worker ownership and profit sharing in large and small American corporations and alternative ways of investing the savings of citizens in order to promote more broadened wealth. Sessions will explore the ideas, the history, the examples, the government policies, and the possible careers for students involved. From studying Google to looking at a worker cooperative manufacturing of solar panels, we will bring in sociology, economics, history, ethics, management, and labor studies to inform our understanding of modern capitalism.

**01:090:101 section 07 index 28101**

**Medical Decision Making**

Gretchen Chapman (Psychology)

How do patients, physicians, and policy makers make decisions? What type of evidence and mathematical principles should inform medical decisions? What errors or biases do actual decisions display, and what do those biases indicate about the psychological processes that underlie decision making? In this seminar we will first discuss some principles of evidence-based medicine. Then we will examine some empirical psychological studies of medical decision making that illustrate how physicians and patients sometimes deviate systematically from sound decision principles. We will discuss the implications of the findings for both the basic science question of understanding the psychology of decision making and also the applied question of how to improve medical practice and health policy.

**01:090:101 section 11 index 28104**

**Fun, Games, and Cooperation**

Lee Cronk (Anthropology) and Beth Leech (Political Science)

Human beings are remarkably cooperative organisms. One of the most useful tools in the study of human cooperation is experimental games. In this course, we will use some simple and fun experimental games to explore the problems that people face when they try to cooperate and how they can be overcome. Because travel is one human endeavor that requires a great deal of cooperation to be successful, this seminar will end with a journey by the entire class, via public transportation, to another venue at which cooperation is the order of the day—a pizza restaurant—making note along the way of how all of the lessons learned in class play themselves out in real life.

**01:090:101 section 15 index 28106**
The Politics of Abortion: 40 years post-\textit{Roe v Wade}
Cynthia Daniels
(Political Science; Associate Campus Dean, Douglass)
This seminar will examine the historic \textit{Roe v Wade} decision, subsequent Supreme Court decisions, and the growing development of restrictions on abortion in the United States. Students will engage in research on court cases, readings on the right to life and pro-choice movements, and original research on controversial state “burdens” on abortion such as legislative efforts to require ultrasound procedures, parental notification, and “informed consent” requirements. Students will also explore the use/misuse of visual imagery in these highly contested public debates.

01:090:101 section 18 index 28108

The Arab Spring and the Quest for Democracy in the Middle East
Eric Davis (Political Science)
In the West, the Arab world has been characterized as having a “democracy deficit.” In 2011 and 2012, however, autocrats were removed from office by movements, largely led by youth, in Tunisia, Egypt, Libya, and Yemen. Will the process known as the Arab Spring bring democracy to the Middle East? Given that most Middle Eastern countries are Muslim majority nations, we will explore these key questions: Is Islam an impediment to democratization or could it actually help promote democracy? If the Middle East experiences meaningful democratization, who will be the winners and who will be the losers? In short, what can we predict about the ultimate impact of the Arab Spring?

01:090:101 section 19 index 32046

Sexuality and Migration
Carlos Ulises Decena
(Women’s and Gender 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.

01:090:101 section 20 index 28109

Exploring the Human Past: An Odyssey in Time, Space, and Evolution
Craig Feibel (Geological Sciences) and Jason Lewis (Anthropology)
This course will explore the record of human prehistory through the lens of scientists and explorers. A central theme in our approach is for each class to transcend time, meshing prehistory, history, and modern-day scientific investigations. Working from our own research in the West Turkana Archaeological Project (Kenya), 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 forays back into the wild African savanna from which our ancestors emerged.

01:090:101 section 25 index 28114

Journeys, Pilgrimages, and Quests in Latino Language and Culture
Nydia Flores and Ebelia Hernandez (School of Education)
This seminar will address the Latino experience in college, in the U.S., and in New Jersey, and uncover the selves of Latino identity. We will consider what has contributed to their language, their culture, and their identity, and how the immigrant and non-immigrant Latino quest for success is articulated among this new generation. Several topics will be explored, including Latinos’ linguistic and cultural diversity; Bilingual biculturalism; the Latino heritage experience; Latinos and the college experience; Code-switching and language identity; Latino history and migration; Latino gender roles; Latino academic achievement; Precious Knowledge; Latino familismo; Latinos and diaspora; and more.

01:090:101 section 26 index 28115

What is Human Memory?
Arnold Glass (Psychology)
Ask me to tell you the story of my life and I will weave an answer based on what I best remember of my experiences. But are all of my memories true? Did they really happen? Thirty years ago human memory was believed to be the result of some sort of recording device in the brain. We now know that autobiographical memory is a narrative that is constantly being rewritten. So, some of our memories may be further linked by their shared theme of exploration, as forays back into the wild African savanna from which our ancestors emerged.

01:090:101 section 28 index 28117
What Makes Acculturation Successful? Balancing Family and U.S. Cultures
Peter Guarnaccia (Human Ecology)
Acculturation is the process of adjustment and change that people make as they move from one culture to another. In this course, you will work with the current research of the seminar’s professor, examining questions of how Rutgers students who are immigrants balance their family cultures, while learning aspects of American culture to successfully navigate college. The seminar will introduce you to relevant readings, materials from the professor’s research project, and other students’ own experiences. Students in this seminar will also explore their own family and personal journeys to college. The course will culminate in a visit to the Ellis Island Museum to learn about the history of U.S. immigration.

11:090:101 section 04 index 34015

Reading the Landscape
Jean Marie Hartman (Landscape Architecture)
Whether you are in the city or the country, the landscape tells a story about its environment, history, and use. Through readings, videos, and walks, we will develop your landscape reading skills so you can see the way a landform is shaped and how agricultural use left its mark on today’s urban forest. This kind of landscape literacy will help you see familiar places with new eyes and then understand and enjoy new places more readily.

11:090:101 section 05 index 28777

“What Home Safe Home”: Creating Housing Programs for Domestic Violence Survivors
Andrea Hetling (Bloustein School of Planning and Public Policy)
In this seminar, we will discuss a new policy approach to meeting the needs of survivors of domestic violence.

11:090:101 section 32 index 28723

Permanent supportive housing programs aim to provide safe and permanent housing with an array of voluntary programs for women and their families. We will begin by learning about the dynamics of intimate partner violence and the traditional ways agencies have served survivors. We will hear from advocates and researchers about the positive and negative aspects of this new movement and read firsthand accounts from survivors. Based on these experiences, we will draft letters to public officials expressing our views.

01:090:101 section 35 index 28112

“I loved this class because of the freedom it gave me to explore my interests.... I felt no pressure asking questions or fearing bad grades. The Byrne Seminar is the epitome of a class that nurtures the interests of a student and inspires them to pursue their passion.”

-Karen Yang, RU ’16

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’ll discuss the general context of criminal-case 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. Through class discussion, students will develop their own considered views of the final results of each case.

01:090:101 section 33 index 28120

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 section 36 index 28123

Exploring Happiness
Briavel Holcomb (Bloustein 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 philosophers, the new field of positive psychology, the geography and economics of happiness, and the use of well-being as a measure of success in public policy. How do different religions conceive of happiness and an afterlife? What do music, art, and dance contribute to our happiness? Discussions will be wide ranging and enjoyable. Our final meeting will conclude with a communal meal.

01:090:101 section 36 index 28123
The Economics of College and Professional Football
Mark Killingsworth (Economics)
This seminar will describe and analyze two very different “industries”: college football and professional football. These two industries are full of paradoxes. Pro football players are paid big salaries, but their careers often are brief and the risk of injury is high. Big-time college football generates millions of dollars in revenue, but college football players do not receive a salary. Both colleges and professional football teams build large and expensive stadiums, frequently with taxpayer subsidies. At both the college and pro levels, many coaches receive multimillion-dollar salaries. Where does all the money for this come from at the college and pro levels, and where does all the money go? Should the government regulate college and/or pro football more stringently, or more leniently? Should taxpayers continue to fund stadiums for college or pro football? What are the factors that affect coaches’ salaries? Is there evidence of racial discrimination in pro football players’ salaries? This seminar will explore these questions and more.

01:090:101 section 48 index 33910

Stress, Health, and Disease
Alexander Kusnecov (Psychology)
Why are you more likely to get sick during final exam week than during any other part of the semester? Can “germs” make you feel like you have depression, give you schizophrenia, or affect your brain development? Is stress always a health risk? This seminar will explore how stress and psychosocial factors affect disease processes that involve the immune system, the body’s defense against disease and infection, and a source of inflammation. Stress can compromise the immune system, leading to illness; but researchers have discovered that the opposite is also true: inflammatory immune responses influence brain and behavioral function. Thus, some immune responses have been linked to diseases affecting mental health. We’ll discuss links between stress and rates of infection, cancer, and autoimmune disease. In addition, we’ll learn about connections between inflammatory immune processes and depression, schizophrenia, autism, and Alzheimer’s disease.

01:090:101 section 52 index 28127

The Meaning of Videogaming
Paul McLean (Sociology)
Playing video games is a way to have fun, hang out with friends, and spend your time. But how does videogaming both shape and reflect our culture and our way of living as a society? In this seminar, we’ll learn about the meaning of videogaming from a sociologist’s perspective, as an “idioculture.” Videogaming is fundamentally a social activity: in game-play we learn to follow rules, but also how and when we are supposed to bend the rules. We learn about honor, cheating, and honorable forms of cheating. We make pretend claims to status, and we participate with the tools of the game—heroes, villains, music, competition—to develop a sense of ourselves. In this course we will study the nature of play, play video games, and critically observe other game players in order to understand this idioculture both theoretically and practically.

01:090:101 section 61 index 34066

Governor, Prisoner, Founder, Quaker: The Life and Times of William Penn
Andrew Murphy (Political Science)
Many Americans have heard of William Penn, and may have a vague idea that he is the figure represented on the Quaker Oats box, or that Pennsylvania was named after him. He isn’t, and it wasn’t. Curious? Join us in this Byrne seminar where we will learn all about this fascinating seventeenth-century political thinker and politician, who influenced not only the founding of Pennsylvania (who was it named after, really?), but New Jersey, New York, Delaware, and Maryland as well. We will read original works by Penn and his contemporaries and visit his home, Pennsbury Manor, as well as one of the oldest Quaker meetinghouses in the country. Along the way we’ll learn a lot about English and American history, the development of religious freedom, and what it means to study a historical figure like Penn, who moved between England and America – and from the corridors of power to the poorhouse – over the course of a long and eventful life.

01:090:101 section 97 index 38275

Experiencing the Pedestrian City
Anton Nelessen
(Bloustein School of Planning and Public Policy)
How can we plan and design better cities in the future? We can start by experiencing well planned, designed and connected cities where it is reasonably easy, inexpensive and healthy to move from one destination to another without the use of the car. Well-designed public realms of walkways, sidewalks, bike lanes and public transit are connecting places and spaces that make cities livable, more affordable, less polluting and also compelling. This seminar will explore this public mobility realm and the spaces it connects. We will directly experience, observe, and note our experiences as we travel urban spaces by train, bus, subway, ferry, light rail, possibly bicycle, and on foot. The seminar will meet in four sessions; an initial meeting, two field trips and a final meeting. Our journeys will be scheduled for two Saturdays, and both trips will begin and end at the New Brunswick train station starting in the morning and ending in late afternoon. Transportation costs and lunch will be provided. Required materials for the seminar: digital camera and video camera (or recording device). At the final session, each participant will make a short presentation of their most memorable spatial sequence.

01:090:101 section 64 index 32148
Meeting the Millenial Challenge Across Generations
Anton Nelessen and Marc Weiner (Bloustein School of Planning and Public Policy)

This seminar explains the college experience as a journey through the ever-changing cultural and political landscape of American life. Using William Strauss and Neil Howe’s Generations as a lens to frame analysis, we will focus on the cultural and political challenges facing American college students from the late 1950s to the present. We seek to understand the progression of challenges facing college students and how each successive generation’s response to those challenges, in turn, framed the challenges for the next generation. Throughout the seminar, we will ask the current freshman class to consider the challenges they have inherited by exploring these key questions: “What matters to you?”, “What’s important to you for your future? For the future of our nation? of our planet?,” and, most pointedly, “What’s your personal role as your generation inherits leadership from us?” We will end the seminar by turning to planning and public policy development questions of our time, including global climate change, sustainability, challenging the military-industrial complex, and reassessing the wisdom of an automobile dominated landscape.

NJ Farms: Exploring the Garden State
Holly Grace Nelson (Landscape Architecture)

Although New Jersey’s nickname is the Garden State, most people think the New Jersey landscape is what they see (and smell) as they drive on the turnpike past oil refineries and shipping depots. From here, agriculture is mostly invisible. Despite this common perception, there are over 10,000 farms in New Jersey. Most of them are small- or mid-sized farms because New Jersey is the most densely populated state and land values are high. What do these local farms provide to society beyond pastoral landscapes? What is New Jersey agriculture, and how does it differ from other places? We will learn the answers to these questions and more by visiting local farms and asking the farmers themselves.

The Durability of Early Formed Beliefs
Daniel Ogilvie (Psychology).

Some beliefs are easy come, easy go. Many children believe in Santa Claus, but most children are not devastated when they realize that Santa is a myth. However, other sorts of beliefs operate as basic, sometimes unspoken, assumptions about the nature of life that resist being penetrated by evidence that these assumptions might not be valid. For instance, some people in the Middle Ages were executed for arguing that the Earth was not the center of the universe. The purpose of this seminar is to investigate how this phenomenon operates in the context of soul and afterlife beliefs and come to a better understanding of how early-formed beliefs become so deeply internalized that people are willing to harm others to defend them.

“Show Me the Money”: Fundraising for a Cause
Ronald Quincy (School of Social Work)

In this seminar, we will examine the challenges and opportunities 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 grantsmanship; and how to write winning funding proposals. The seminar will focus on “how to land the big fish.” 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.
fifteen years, the number of IDPs world-wide has risen. Why? In this seminar, we will look for answers to that question. Through films, readings of IDP experiences, and meetings with UN experts, we’ll examine the reasons behind the rapid increase in IDPs. Students will become familiar with the everyday struggles of IDPs in different parts of the world, and will learn how national governments and international organizations are addressing this crisis of mass human displacement.

01:090:101 section 72 index 34070

NJ’s Changing Weather & Climate: From Polar Bears to Palm Trees
David Robinson (Geography)
With the devastation wrought by Sandy, questions have arisen as to whether this is a sign of more severe weather to come. 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 the impact of humans on the regional and global atmosphere and landscape. This seminar will explore NJ’s weather and climate in the past, the present, and in the 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 section 77 index 37295

The Environment and YOUR Health: Global Health Issues in the 21st Century
Mark Gregory Robson (Dean, Agricultural and Urban Programs; Entomology)
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’ll 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 South East Asia and West Africa. Case studies and current research will be used as illustrations.

01:090:101 section 11 index 34688

Making Sense of the Health and Wellness Tsunami
Brent Ruben (Communication) and Alfred Tallia (Family Medicine and Community Health, RWJMC)
In recent years there has been a steady and dramatic growth in health and wellness-related communication. Each day, we are inundated by a wide-ranging assortment of health and wellness messages on a broad array of issues from a multiplicity of communicators. Where information on these topics once came primarily from physicians, today we also receive advice and information from nurses, pharmacists, nutritionists, alternative health providers, personal trainers, health food store personnel, pharmaceutical companies, newsstand magazines, electronic billboards, celebrity testimonials, TV infomercials, and a virtually limitless variety of internet sites. This seminar will explore the following questions: What are the reasons for the emergence of this vast and rapidly growing health and wellness advice-giving industry? Further, how can we, as healthcare consumers, develop improved healthcare literacy? How can we evaluate the validity of health information and advice, and how can we make appropriate choices among the many messages, sources and types of advice with which we are confronted on a daily basis?

01:090:101 section 96 index 38172

Cold War Politics and Policy in Film and Literature
Hal Salzman (Bloustein School of Planning and Public Policy)
The Cold War looms large in our popular imagination and in shaping the post-war path of globalization. In this seminar, we will examine how popular films and novels portray the Cold War period and the relationship between the Soviet Union and the United States. We will study major events and themes, from nuclear war, spying, and McCarthyism, to Cold War global expansion and the fall of the Berlin Wall. We will watch five feature films, starting with Dr. Strangelove, and students will read one spy novel. We will also take field trips to the United Nations and the Zimmerli Art Museum’s exhibition of Soviet-era art.

01:090:101 section 78 index 34719

Makerspaces and 3D printing: The New DIY
Jose Sanchez (Library and Information Science)
3D printing is a process of making three dimensional solid objects from a digital model. The technology is used in the fields of architecture, fashion, automotive, aerospace, dental and medical industries, education, civil engineering, and many others. Recently, consumer level 3D printers have become available and new uses for the technology are rapidly appearing. The goal of our class is to examine the feasibility of using 3D printing as a learning tool for university students, K-12 students, and adult learners. In order to test the abilities and limitations of 3D printing, we will work in a makerspace to create our own 3D printed wearable objects.

01:090:101 section 79 index 34854
“They make a wilderness and call it peace”: The Roman Army, Roman Society, and 21st Century America

Jorge Schement (Dean, School of Communication and Information) and Marc Aronson (Library and Information Science)

This seminar will study the army of the Roman Empire to explore the connections between the military and society, then (in Rome) and now (in the United States). You will learn about the arms, training, and combat of legions in the field in order to further explore the wider social, economic, political, and cultural foundations of the Roman Empire. This passage from specific to general, from dramatic events to deep causes, will give you an ever-broader sense of the kinds of questions asked in college classes, and the tools used to answer them as we compare and contrast Rome to 21st Century America.

01:090:101 section 81 index 37296

Culture Games: What Do Major Sporting Events Tell Us About Culture and Society?

Mark Schuster (Senior Dean of Students)

From the all-male naked Olympics of Ancient Greece to Title IX and its effect on college athletics for women and men, this seminar will look at the culture of sport. We’ll discuss a variety of American sports controversies—steroids and baseball, shock-jock radio announcing and race, and the role of athletics in college education—the causes of these controversies, the fallout from them, and what they reveal about us as communities and as a society. We’ll consider how gender, sexuality, and race play in the game of sports. Whether you are a competitive athlete, a pick-up player, a fan, or all of the above, this seminar will open your eyes to the powerful role sports play in American culture.

01:090:101 section 82 index 37297

Money: A Gentle Introduction to Economics in Exciting Times

Neil Sheflin (Economics)

This seminar is an introduction to the nature, role, history, impact, art, and future of money. We will discuss elements of finance, monetary theory, monetary policy, monetary mischief (bubbles, manias), and the art of money (engraving, minting). We will explore how to make and use money wisely through both personal finance and career ideas. Finally, we will look at some current research on monetary policy. This seminar is oriented toward non-economics and non-business majors, though all are welcome.

01:090:101 section 83 index 37298

Games and Economics in the Laboratory

Barry Sopher and Tomas Sjostrom (Economics)

Economics is usually thought of as a non-experimental science. But over the last fifty years, from 1962 when the first substantial article treating economics as a laboratory science appeared in a major scholarly journal, to 2002, when the Nobel Prize in Economic Science was awarded to two experimentalists (Vernon Smith and Daniel Kahneman) for their contributions to economics, to the present day, the experimental method has moved from being an occasional curiosity to being a firmly established research tool for the professional economist. In this course we will explore the methods and topics of experimental economics and you will be introduced to what it means to do research. Research is about figuring out answers to questions that have not been answered before. You will participate in “tried and true” experiments that originated as research projects. The only difference, really, in your participation and the participation in a real research experiment is that you will be playing for fun and to learn, while in real experiments subjects play, normally, for real money. To give you the incentive to take the experiments seriously, however, we will be keeping track of your “earnings” over the course of the semester. Your earnings will be converted into lottery points which will be used to determine the winner of prizes at the end of the semester. The more points you earn, the better your chances of winning in the lottery.

01:090:101 section 86 index 37301

Digital Media Storytelling

Anselm Spoerri (Library and Information Science)

In this seminar, students will explore, learn, and discuss how best to use innovative digital media technologies, such as gigapixel and image fusion photography, and digital mapping tools, such as Google Maps and Google Earth, to develop and tell digital stories. Students will work as a team to create and edit digital media that captures unique aspects of the New Brunswick campus as part of the whererU project – http://whereru.rutgers.edu.

01:090:101 section 87 index 37302

Journey through Livingston History

Lea Stewart (Dean, Livingston Campus; Communication)

In one of the far corners of the Livingston Campus there is an outdoor artwork designed by a former student that is titled “Finding a Way in This World.” This sculpture is an apt metaphor for the changes that have taken place on the land that is currently known as the Rutgers University Livingston Campus and can serve as a guidepost on a journey to discover the rich history of this land. From its earliest days as home to the Stelton Modern School (with its roots in the philosophy of Francisco Ferrer and Emma Goldman) to the opening of a new building for the Rutgers Business School (designed by noted Mexican architect Enrique Norten and heated by geothermal energy) the Livingston campus has been a site of activity that reflects our changing world. It has been home to a utopian, anarchist community called the Fellowship Farm Cooperative Association; it was the
location of a major military base during World War II; and it was the site of the first-coeducational college at Rutgers. Using original, unpublished archival materials held by Rutgers University Libraries, gathering information through interviews with key stakeholders, and walking through our campus and nearby neighborhoods, students will map the changing world of the Livingston Campus and the people who have lived, worked, and studied on this land for over 100 years.

Experiencing National Parks and Parklands
David Tulloch
(Landscape Architecture)
From Grand Canyon to Acadia to the Dry 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.

Autism and Parkinson’s Disease: An Overview
George Wagner (Psychology)
Autism is a disorder that emerges in childhood, often before a child is three years old. Parkinson’s disease is a degenerative disorder that affects adults and increases in severity as people age. What do these two disorders have in common? That is one question we will explore in this seminar. We will begin by examining autism from its genetic and neuroanatomical basis to its symptoms and therapy. We will discuss important issues and theories about the origins of autism. Additional topics will include symptoms and epidemiology of autism, animal models of autism, and theory of mind. Finally, we will discuss the similarities between autism and Parkinson’s disease, a disease normally associated with aging. We will explore the possibility that the origin of Parkinson’s disease may be very early in life and, in many ways, quite similar to autism.

The ABCs of Patents: How to Protect Your Creative Inventions and Avoid Stealing Others
Connie Wu (Rutgers Libraries; Confucius Institute)
Young minds think big! Today’s students can be tomorrow’s entrepreneurs and inventors. New Jersey is the birthplace of Thomas Edison; as a great inventor, Edison has inspired creativity and sparked big ideas in others. In this seminar, we will learn from famous inventors and hone our own creative thinking process. This seminar will also introduce you to various types of intellectual property, with an emphasis on patents. Any student who wants to follow Edison’s footsteps needs to know how to protect their inventions. We will think about the uses of intellectual property and examine ways to protect your own valuable contributions while learning to avoid stealing the ideas of others. This seminar is particularly aimed at students interested in science, engineering, business, and law.
Radio Astronomy: Jersey Roots, Global Reach

Andrew Baker
(Physics & 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 of radio astronomy in New Jersey, which includes 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 the scientific and technical advances made by modern radio astronomers, and will obtain and analyze their own observations of atomic hydrogen gas in the Milky Way using an on-campus telescope.

Weather Gone Wild: Will Climate Change Cause More Extreme Weather?

Anthony Broccoli
(Environmental Science)

Global temperatures are rising, and increases in carbon dioxide and other greenhouse gases are likely responsible for most of the recent warming. Because fossil fuels remain the most important energy source, continuing greenhouse gas emissions are expected to lead to more warming for the next few decades and probably beyond. Some evidence indicates that more extreme weather may result from this warming and that some of these changes may be already underway. In this seminar we will examine the evidence that global warming can increase the likelihood of extreme weather events such as heat waves, heavy rainstorms, and hurricanes.

Exploring New Jersey's Estuarine Waterways

Robert Chant (Marine and Coastal Sciences) and John Reinfelder (Environmental Science)

Is the Raritan River ecosystem devoid of life or is it on its way back to becoming the “Queen of Rivers”? How are New Jersey’s rivers connected to the NY/NJ Harbor and the sea? Can the New Jersey Meadowlands keep up with sea level rise? After decades of declining water quality due to industrial activity, waterborne commerce, and population growth in the 19th and 20th centuries, the health of New Jersey’s waterways has improved substantially over the last 30 years. In this seminar we will explore the physical structure and current health of local waterways, including the Raritan and Hudson Rivers, Raritan Bay, Newark Bay, and the New Jersey Meadowlands in ship-board and shoreline surveys.

Collapse of Civilizations

Kuang Yu Chen (Chemistry and Chemical Biology)

In human history, several glorious civilizations suddenly collapsed at their peak due to natural or man-made disasters. By learning how these civilizations fell apart, we will gain valuable insights and lessons on how we can steer clear of the same fate. The class will examine the impact of a volcano/tsunami on Minoan civilization, the end of Angkor, and the demise of the Mayan and Aztec civilizations. We will also look at the impact of human activity on the environment, using Hispaniola, Australia, and the Great Pacific Garbage Patch as examples to illustrate the severe negative impact of human activity on the future of modern civilization.

Traditional Organic Food and Farming Systems

Joseph Heckman
(Plant Biology & Pathology)

Before supermarkets and an obesity crisis, we were closer to the source of our food. Fresh foods from fertile soil were consumed raw or specially prepared by soaking or fermentation. Milk, meat, and eggs were obtained from animals on pasture. Soils were maintained by keeping livestock and crops together and through composting. In this course, we will study traditional organic food and farming systems through field trips and by reading selected writings of organic pioneers. We will also explore the challenges and rewards of producing and preparing traditional nutrient dense foods on an organic homestead or building a relationship with a local organic farmer to secure these whole foods.

Evolution and the Argument from Design

Jody Hey (Genetics)

Human beings and other living organisms are highly complex with many amazing adaptations which give them the appearance of having been designed. One common idea about how this came to pass is that life was indeed designed by a creator (the Argument from Design). In contrast, Darwin’s theory of evolution offers an alternative mechanism (natural selection) for how complex organisms came into being. Although the Argument from Design is an ancient idea, it has received a lot of attention in recent years under the name “Intelligent Design.” This seminar will explore basic ideas on the nature of science and about the conflict between evolution and
Drugs and Genes: The Development of Personalized Medicine
Marcel Iba
(Pharmacology and Toxicology)

What causes lactose intolerance, hay fever, or extreme reactions to peanuts or penicillin? What if scientists could create “personalized medicine” that targeted each person’s unique response to food and drugs? Some scientists are now saying that we can. Drug and food intolerance stems from genetic differences in individuals, and affects whether they are protected from toxins in food or in the environment, or whether they are more susceptible to these toxins. These genetic differences, or mutations, have developed over the course of human evolution. In this seminar, we will learn about the history of the role of genes in food, chemical, and environmental intolerance. We will also discuss the relationships between modern drug therapy, disease management, and genetics, and trace the development of personalized medicine.

Complementarism: A New Philosophical Framework Rooted in Modern Physics and Biology
Sungchul Ji
(Pharmacology and Toxicology)

Niels Bohr, the early twentieth century Danish physicist, is famous for his theory of complementarity, that items could have different and seemingly contradictory properties, depending on the way in which they are studied. One example of this is the wave-particle duality: light behaves either as a wave or a stream of particles, depending on the experimental framework. This once-revolutionary idea has become standard among physicists. In the 1990s, an extension of Bohr’s idea, called “Complementarism,” was promoted by Professor Ji, the instructor of this seminar. Complementarism suggests that the ultimate reality is a complementary union of opposites, and that there exists a transcendental level where these opposites are reconciled and harmonized. This philosophical framework, supported by research on super-coiled DNA and by the mechanics of protein machines, builds conceptual bridges between western science and eastern religions. Students will study several aspects of complementarism, in physics, cell biology, and the human brain.

Energy & Atmospheric Chemistry
Leslie Jimenez (Chemistry and Chemical Biology)

This seminar will investigate the substances produced by humans that deplete the ozone layer and lead to climate change, and the connections between scientific discoveries in atmospheric chemistry and public policy decisions. Beginning with the discovery that man-made ozone-depleting chemicals were causing an ozone hole to develop over Antarctica, we will look at how the products and energy we produce alter the chemistry of our atmosphere. In tracing the history of atmospheric science, we will examine the public policy response to these findings, such as the Montreal Protocol on Substances that Deplete the Ozone Layer, which has been ratified in by 197 countries, and the Kyoto Protocol to the United Nations Framework Convention on Climate Change, which has been signed but not ratified by the United States. Finally, we will visit the Jersey Atlantic Wind Farm and Solar Project to look at the ways in which modern technology can help protect the atmosphere.

Creating 2D and 3D Innovation with Polynomiography
Bahman Kalantari
(Computer Science)

Through a unique software, called Polynomiography, you will be introduced to a fantastic, very powerful, and easy to use visualization medium, where polynomials turn into 2D and 3D objects that can be used to create artwork of diverse types, to invent games, and to discover many new concepts as well as creative and innovative ideas that can be applied to many subject areas. Students of Polynomiography courses have found its applications in many fields of study: art, math, computer science, dance, linguistics, psychology, physics, chemistry, architecture, cryptography, and more. Working with Polynomiography software is similar to learning to work with a sophisticated camera: one needs to learn the basics, the rest is up to the photographer.

Science Fiction, Science Fact
Charles Keeton (Faculty Director, Aresty Research Center; Physics and Astronomy)

From warp drive to wormholes, force fields to flying cars, interstellar travel to invisibility cloaks, science fiction is replete with wondrous ideas and technology. Just how far-fetched are they? Is there any fact behind the fiction? In this seminar we will examine the scientific and technological underpinnings of many popular examples. We will see that some fictional “predictions” have already come true, and learn to distinguish ideas that have a real future from those that are true fantasy. This course is appropriate for non-science majors; the only requirements
Aquatic Insect Biodiversity and DNA Technology: Identifying Species with DNA Barcodes
Karl Kjer (Ecology, Evolution, and Natural Resources)
The DNA “barcoding” initiative is a major international research project that is dedicated to sequencing a small fragment of mitochondrial DNA from every animal species on earth. From these sequences, we can make accurate species identifications. For example, different species of caddis flies have specific temperature requirements and different tolerance to pollution. Therefore, studying species identification can track things like changes in water quality, as well as factors that contribute to global climate change. The class will travel to Stokes State Forest to collect aquatic insects, and these insect samples will be compared to those collected in the Rutgers Ecological preserve. We will extract DNA from these samples, amplify the DNA with PCR, and sequence them. These sequences will then be submitted to the BOLD (Barcode of Life Data Systems) website for identification, allowing us to link species diversity with water quality. You will learn a broad and interconnected set of skills, including insect biodiversity, DNA sequencing technology, and the link between human activity, and aquatic ecosystem health. (Students will need to attend one of the Rutgers Laboratory safety courses.)

Digital Storytelling of Illness and Recovery
Casimir Kulikowski (Computer Science)
How do we go about designing and writing computer programs that will allow us to describe a personal medical history? What are the computer models and databases needed to capture the information about a person’s medical history so that we can most easily “thread” the stories of an illness? How do timelines help us in chronicling medical or health histories of patients—or ourselves? You will design scenarios to experiment with digital storytelling involving innovative combinations of the visual, narrative, and computational ways of describing experiences in health disruption—and the resulting disruption of lives—and how we portray them to each other.

Mind-Body Approaches to Managing Stress
Paul Lehrer (Psychiatry, RMJMS)
You will learn about several ways that voluntary control of the body (muscles, heart, lungs, etc.) can help manage psychological stress and some psychiatric and medical diseases, which have direct application for everyone, from athletes to artists. The seminar will include personal training and research readings on such topics as progressive muscle relaxation, self-hypnosis, and biofeedback, and include experiential learning. You will learn to relax your muscles, to control your heart rate and skin temperature, and observe the effects on your emotions, sleep patterns, and tolerance for stress.

The Secret Life of Birds
Julie Lockwood (Ecology, Evolution, and Natural Resources)
This seminar introduces students to the origin and evolution of birds from dinosaurs, the diversity of birds in New Jersey and worldwide, the physics and physiology of flight, and the forces that shape bird behavior and life history. The approach of the course is to have students engage in field-based lectures on these central topics, so that the birds we are seeing together outside become the visual “aid” for learning. For example, the physics behind avian flight mean far more to us when we are seeing birds take off, soar, and land right before our eyes. The timing of the course coincides with the peak...
of Fall migration in New Jersey. This facet of the course will allow us to discover and consider many more species than we would normally, and allows in-depth discussion of topics such as the evolution of migration and navigation. Students can expect an introduction to the field identification of birds, and a basic understanding of life history evolution, ecological interactions, and basic physiology.

11:090:101 section 08 index 28779

**Hollywood Biotechnology: The Road from Science to Culture**

Paul Meers (Plant Biology and Pathology)

In this course we investigate society’s artistic attempts to interpret and assimilate science and the occasionally wide gap between public perception and a true understanding of the way science “works.” Students will be introduced to some of the concepts of modern biotechnology and nanotechnology via viewing and discussing the portrayal of these fields in popular movies. 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 movie science reviews as a required assignment.

11:090:101 section 09 index 28780

**What Does It Take to Make a Digital Computer?**

Dimitri Metaxas (Computer Science)

This seminar will explore issues at the intersection of philosophy and computer science. We will explain in accessible terms how the search for the foundations of mathematics in the late 19th century led to the exploration of infinity and to the development of formal logic. We will also examine how the investigation of formal logic led to some of the deepest mathematical and philosophical results (Goedel’s theorem and Church’s theorem) and how this led to the development of the computer. Finally, we will discuss some philosophical and social issues that arise concerning computers and robots. For example, can computers think? And what if we can make computers that can build even smarter computers which can build? We will use the recent presentation of these matters in Logicomix. See: logicomix.com/en.

01:090:101 section 56 index 34065

**Exobiology: Is There Life on Other Planets?**

Gaetano Montelione (Molecular Biology and Biochemistry) and Yuanpeng Janet Huang (Molecular Biology and Biochemistry)

The class 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: (i) energy source; (ii) liquid state; (iii) organic molecules. How did these appear on the earth and function together to create life? Do the right combinations for life exist elsewhere inside and outside of our solar system? What is the role of asteroid impacts and comets in the evolution of life? How about Solar wind? What is the role of the earth’s magnetic field? How about the Martian magnetic field? What kinds of life forms exist on earth? Would life on other planets use DNA? How about RNA? How can we detect life on other planets?

11:090:101 section 12 index 34692

**Endocrine Health and Diseases**

Dipak Sarkar (Animal Science)

What are the health consequences of alcohol consumption? What is the relationship between stress, sleep disturbance, and alcohol abuse? Does childhood neglect affect mental diseases? 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.

11:090:101 section 13 index 34694

**Journeying the Raritan River in Search of Parasite Diseases**

Michael Sukhdeo (Ecology, Evolution, and Natural Resources)

This class will introduce you to the ecology and evolution of parasites and their life cycles. We will study the changing dynamics of infection in our wildlife along the Raritan River (using fish as the natural hosts) to show the effects of human-dominated systems (i.e. pollution) on the incidence and prevalence of parasites in natural systems. Field trips will be made to collect invertebrate and vertebrate hosts (fish) along three sites of the Raritan River that differ in their rates of pollution and habitat degradation.

11:090:101 section 14 index 35135
Making Mutants: Understanding the Control of Gene Expression by the Analysis of Mutant Genes
Andrew Vershon (Waksman Institute of Microbiology; Molecular Biology and Biochemistry)

The control of gene expression is one of the fundamental processes in all organisms and unregulated gene expression is often the cause for cancer and other diseases. Understanding how gene expression is regulated will help researchers develop mechanisms to combat disease. This course will discuss current research in the yeast *Saccharomyces cerevisiae* that is being used to understand the process of gene regulation in eukaryotes. Students will get first-hand laboratory research experience by performing experiments to isolate and analyze mutants in a protein that regulates transcription in yeast.

01:090:101 section 91 index 37408

World of Glass
John Wenzel (Materials Science and Engineering)

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 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 that make it a unique and useful 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.

01:090:101 section 93 index 37409

All Stressed Out and Nowhere to Run: Plant Tolerance and Survival
Barbara Zilinskas (Plant Biology and Pathology)

Plants are “stuck”; they cannot run away from environmental or biological stressors. Survival in harsh conditions, whether natural or man-made, demands that plants have clever and various means to avoid or tolerate stress. Whether there are severe droughts or ravaging floods, sweltering or freezing temperatures, polluted air or soil, devastating pathogens or insect pests, plants have evolved various ways to survive. Scientists are determined to understand these tolerance mechanisms with the goal of reducing the adverse effects of stress on plant growth and crop productivity, which is of paramount importance as we move forward to address issues of global food security.

11:090:101 section 17 index 37417

SPECIAL WINTER SESSION
OPEN TO FIRST-YEAR STUDENTS

The Estuary in Winter: Field Experiences at Rutgers University Marine Field Station (RUMFS)
Ken Able (Director, RUMFS; Marine and Coastal Sciences)

This estuarine field experience includes informal lectures and discussions within the Jacques Cousteau National Estuarine Research Reserve at Mullica River - Great Bay estuary in southern New Jersey. Between January 5th and 10th, students will explore the relatively unaltered terrestrial and aquatic habitats within this unique watershed. We will take field trips to learn about Pine Barrens rivers, salt marshes, and intertidal and subtidal creeks. Students will also be exposed to ongoing research at RUMFS and to estuarine management issues affecting estuaries in New Jersey.
From the Directors

The Byrne Seminars and Aresty Research Center continue to provide innovative programming through the Office of Undergraduate Academic Affairs, and this spring we are introducing additional seminars to the Aresty-Byrne Program. This two-year program is designed to take students from the classroom into labs, archives, and the field. Following their Byrne Seminars, students will, in their sophomore year, participate in Aresty Center research training, working with advanced students to develop research skills and with faculty to explore their ideas through experiential learning.

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 Center builds on this introduction by placing undergraduates with faculty mentors. With the Aresty-Byrne Program, 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 will 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 will challenge students to develop and practice next-level research methods to contribute to the process of creative thinking.

Finally, Aresty-Byrne students will be more competitive applicants for the Aresty Research Assistant Program. In fact, some will even become Research Assistants to their Aresty-Byrne Seminar professors the following year. And some students in the Aresty-Byrne Seminars will have the distinct opportunity to present at the annual Aresty Undergraduate Research Symposium.

We invite you to begin your Rutgers experience in the Aresty-Byrne Program.

Angela Mullis
Director of the Byrne First-Year Seminars

Matthew Evans
Director of the Aresty Research Center

ARESTY-BYRNE SEMINARS
OPEN TO FIRST YEAR STUDENTS

Fighting the Fat: Do Obesity Treatments Work?
Nicholas Bello (Animal Sciences)
“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.

The Psychology of Reasoning
Clark Chinn (School of Education)
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. Through this seminar, you will learn about reasoning and how to study it.

Recent Controversies in Reproductive Politics in the United States
Cynthia Daniels (Political Science; Associate Campus Dean, Douglass)
Over the past two years, there has been a rapid expansion of state legislative attempts to regulate women’s reproductive behavior. In this seminar we will document and analyze this legislation and related court cases. In addition, students will conduct primary research on reproductive politics within the United States, with possible topics including restrictions on access to abortion, fetal rights, fetal “homicide” statutes, and the criminal prosecution of pregnant women.

Philosophy, Local Food, and New Jersey Agriculture
Andrew Egan (Philosophy)
In this course we will examine the values and the philosophical ideas behind the local food movement, as well as the ethical issues that arise both for consumers and producers in deciding what kinds of foods to buy and what kinds of production methods to use. We’ll do research into what’s happening in New Jersey agriculture right now, and try to identify the ways some local producers and consumers are making their choices—the values that they’re trying to realize, and the compromises that they have to make. We’ll identify a couple of particular producers to visit and talk to, and (if possible) research issues that they’re concerned with and potentially offer solutions to problems they’re dealing with.

Do You Know What You Are Eating?
Alice Liu (Cell Biology and Neuroscience)
People are increasingly concerned about the food they eat. Many food products include genetically modified organisms (GMO), yet we may not know which foods because there is no regulation in the USA on the use or labeling of GMO. This seminar will begin with a discussion of genetic engineering and GMO. Students will then learn to carry out two simple and powerful laboratory techniques that can be used to detect and identify GMO: (1) polymerase chain reaction (PCR) to determine if food items purchased off supermarket shelves may contain “Roundup Ready” soybean components, and (2) Western blot for the detection of specific proteins in food authentication. These scientific methods will help us uncover what is really in our food and how to appreciate the utility of science research.

The Wonder and Intricacy of the Human Machine
Joseph Freeman (Biomedical Engineering)
The human body is a complex 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 micron 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 leads function; leading to a discussion of tissue structure and how molecular arrangement and alignment dictate tissue behavior.

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Researching Bram Stoker’s Dracula
Stephen Reinert (History)
This course explores Bram Stoker’s creation of one of the great masterpieces of English literature, on the premise that his text represents an enormous project of library research, the various layers of which can be excavated and explored – on the basis of materials as close to hand as Philadelphia, PA. The core questions we will explore – indeed, research – are as follows: (1) where did Stoker derive his notion of Dracula as a key character in the novel, and in what ways does this character reflect an informed understanding of the historic “Vlad the Impaler” from the fifteenth century? (2) what was the influence of Balkan and Slavic folklore and mythology on Stoker’s conception of vampires and their attributes? (3) why did Stoker settle on Transylvania as the major “eastern” setting of the novel, and how accurate was his description of the region’s geography? (4) what motivated Stoker to craft Dracula as he did – what were his underlying objectives and intents? – and how does this influence the modern imagination? In pursuing this journey, we will take a field trip to the Rosenbach Museum in Philadelphia to explore a treasure trove of primary evidence that will help us to answer the questions posed above.
Dying Divas
Rudolph Bell (History)
This seminar explores the motif of female death as performed in the Grand Opera. In the quintessential soprano role, women are often killed by their jealous suitors or even their fathers; brides sometimes poison themselves, often after mortally stabbing the husband imposed upon them, and divas join their lovers in death rather than live without them. This seminar focuses on Italian opera seria, with excursions for Wagner’s Brunhilde and Bizet’s Carmen, and includes heroines from such operas as Lucia di Lammergeor, La Traviata, Aida, and Madama Butterfly. We will attend a live performance at the Metropolitan Opera in NYC.

Where Are We?
Mental Maps and How We Perceive Space
Tisha Bender (English)
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 is, in fact, 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’ll start by discussing the images we have of familiar places, such as our bedroom or our home town, 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’ll 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.

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 solfège 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.

Love, Money, Education: Why We Move Across the Globe
Ulla Berg (Latino and Hispanic Caribbean Studies)
Global migration is a key issue of our time. Currently, a total of 214 million people live outside of their country of birth. Many people across the globe mobilize and travel great distances to earn a livelihood, help their families, be part of new families, seek education, get away from oppression, or experience love. This seminar will explore the motivations, needs, and desires behind some of today’s most significant global movements of people: labor migration, political refugees, international adoption, transnational marriages, and deportation. We will read from a range of sources and screen major documentary films for each topic we address.

What is Africa to Me?
Abena Busia (English)
We all know that aspects of one culture are carried over to and embed themselves in another culture in fascinating ways. African immigrants to the U.S., such as the instructor for this seminar, often recognize familiar forms of “home” shadowed in American culture. This course focuses on recognizing ways in which Africa is “remembered,” as legacy and metaphor, as well as in practices of daily living, in the United States. Through films, performances, and a field trip to the African Burial Ground in New York City, we will look at a wide range of African American cultural texts and trace them back to their origins in Africa. The class will explore the multiple ways in which the arrival of Africans in America has shaped the everyday lives of people in the New World, and continues to do so.

The Same Old Song: Influence, Quotation, and Allusion in Popular Music
Christopher Doll (Music)
From the unconscious borrowing of established pitch and rhythmic
patterns, to the deliberate sampling of fragments of older songs, intertextuality is ubiquitous in the world of popular music. This seminar will focus students’ attention on musical details that raise issues of influence, quotation, and allusion. Starting with music of the 1950s, we will listen to artists such as Ray Charles, Elvis, The Beatles, Jimi Hendrix, James Brown, Led Zeppelin, Bob Marley, Michael Jackson, Madonna, Spinal Tap, Beastie Boys, Bjork, Radiohead, Danger Mouse, and Lady Gaga, and we will study musically intertextual musicals and films such as Joseph and the Amazing Technicolor Dreamcoat, The Rocky Horror Picture Show, and The Royal Tenenbaums.

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.

Thinking in Color
Nicholas Gaskill (English)
Color is at once one of the most ubiquitous features of our daily experience and one of the most puzzling: Is it in our minds or in the world? Is it a physiological phenomenon (something that affects us all the same) or a cultural category (something that means different things to different social groups)? How do particular colors get linked to particular identities such that, for instance, blue is gendered male and pink female? And how do these associations change over time? In this seminar, we will address these color conundrums by looking at how philosophers, artists, and writers have described—and used—the power of color. We’ll begin with philosophy, asking what color is and how we know it, and then consider cultural accounts of how color came to be simultaneously alluring and threatening for people in the West. We will then turn our attention to the central role that color plays in modern painting, with a look at how this celebration of color migrates into other media, particularly literature and film. Towards the end of the course, we will take a trip to the MOMA to experience the power of “modern color” firsthand.

The Politics of Memory: Reimagining the World Trade Center
Angus Kress Gillespie (American Studies)
On March 13, 2006, workers arrived at the World Trade Center site to remove remaining debris and start surveying work. This marked the official start of construction of the National September 11 Memorial & Museum, although not without controversy and concerns from surviving family members of those who perished on September 11, 2001. How will the space be used by the public? What will it symbolize to the city and to the country? By examining the process of designing and constructing the September 11 Memorial, we will explore issues of memory, memorialization, and the complex interplay between space and symbolism.

Reading 2.0: Textual Odysseys and Reading Between the Lines
Martin Gliserman (English)
This seminar will work on one of the most beautiful and appealing texts of the early part of the 20th century—Virginia Woolf’s To the Lighthouse. This novel takes us on a physical journey as a culmination of a psychological journey—it moves us in space and time very deeply into the minds of the characters. In turn, the seminar will take its own journey into this text in a way that redefines “reading between the lines.” The work we will be doing in the seminar is directly related to an ongoing research project on a group of one hundred novels written between 1719 and 1997. The project, teXtRays: Reading 2.0, investigates networks of meaning in literary novels and does so at micro and macro levels—it is looking for large patterns about all the novels, but it is also looking at fine details within individual texts. We will attempt to demystify some of the processes of making meaning in the novel we study. Please see: teXtRays.com

What Does It Mean to be Young in the Middle East and North Africa?
Fakhri Haghani (Middle Eastern Studies)
The demographic boom that emerged in several countries of the Middle East and North Africa during the past three decades has transformed the cultural, political, and economic conditions of these societies. This youthful population has been viewed as the earthquake that will rock the pillars of their governments. Political and social changes in Egypt and Tunisia, and spectacular protests in other countries of the region since last spring, highlight the means of expression used by these youth. In this seminar we will explore films and their representations of these youth in the Middle East and North Africa, their challenges to the establishments, and the use of some of their cultural and social means of expression.
The Hero’s Quest: Religion and Fantasy Literature
Sandra Russell Jones (Religion and History)
This course explores the theme of the hero’s quest in fantasy literature such as Harry Potter, The Hobbit and The Neverending Story. While comparing the individual elements of each hero’s quest, we will examine the ways in which these elements, such as the call to serve, sacred versus profane space, and the power of naming, are present in the myths and narratives of major world religious traditions. We will also consider how this powerful motif teaches us about ourselves as humans, and helps us to make meaning out of lives that are often filled with chaos.

Music and Tragedy
Min Kwon (Music)
“Life without music is a mistake,” said Nietzsche. Throughout human history, music has had the power to comfort and soothe our soul. Music is the true soundtrack of life. As a group, we will explore the history and background of many famous classical composers, how certain events in their lives—from the death of loved ones to the destruction of society (e.g. the French Revolution, WW I)—affected their creativity. How do artistic minds deal with or respond to such struggle and tragedy? We will explore and experience the examples of their survival through their masterpieces. The great artists found solace, even triumphed over difficulties, through their creations and the gift of music, and their artistic genius still resonates today, centuries after their mortal existences are gone. Our class will create a soundtrack of our own, of each student’s life, together discovering the repertoire that heals and touches us. A field trip to a Philharmonic concert at Lincoln Center is included.

Writing a Wiki-Textbook in History
James Livingston (History)
The crisis in book publishing caused by competition from electronic sources of information—among them Wikipedia—is also an opportunity to rethink writing and authorship. The question this seminar will address is quite simple: Can faculty and students collaborate on a wiki-text for American history that is interactive yet rigorous, subject to revision yet reliable, affordable to students yet profitable to the publisher?

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 consoled 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.

Paulo Coelho’s The Alchemist: A Contemporary Quest for Self-Fulfillment and Joy
Damaris Otero-Torres (Spanish and Portuguese)
Paulo Coelho’s The Alchemist has been hailed as a modern classic. Originally published in Portuguese in 1988, this novel has since been translated into 67 languages, becoming one of the best-selling books in history. The story narrates the adventures of an Andalusian shepherd named Santiago, as he travels through the African desert in the pursuit of his dream: to see the pyramids in Egypt. The trope of the journey propels the main character into a deep personal transformation as he discovers the intricacies between ancient esoteric teachings and daily living. In this seminar we will discuss the currency of the spiritual principles addressed by this allegorical quest for self-fulfillment and joy. We will ponder these important questions: What does the ancient metaphor of walking “through the shadows of the valley of death” look like in our contemporary world? Is there a need to build a personal communion with the divine or is it merely an editorial strategy to sell inspirational books? Can the principles and practices of ancient spirituality provide new insights to transmute fear, isolation, and loneliness into creative expression and joy? We will engage in in-depth conversations about the controversial power of spirituality to transform lives.

Nelson Mandela, Barack Obama, and the Transformation of Race Relations in South Africa and the United States
Edward Ramsamy (Africana Studies)
Two phenomena that were once viewed as impossible are now history. Nelson Mandela, having served 27 years in prison for protesting apartheid, steered South Africa through a relatively peaceful transition and became that country’s first democratically elected president in 1994. In November 2008, the United States experienced its own “Mandela moment” when Barack Obama was elected as the nation’s first black president. Both South Africa and the United States share a common history of legally mandated segregation. Andalusian shepherd named Santiago, as he travels through the African desert in the pursuit of his dream: to see the pyramids in Egypt. The trope of the journey propels the main character into a deep personal transformation as he discovers the intricacies between political, and economic factors that
led to the election of Nelson Mandela and Barack Obama, to examine the success and challenges faced by both leaders in overcoming the legacy of the color line in their respective societies; and to assess whether terms such as “post-apartheid” and “post-racial” are appropriate in describing present race relations in these two societies.

“The small class size makes it easier to get to know a professor on a more personal level.”

-Charles O’Brien, RU ’16

Acts of the Imagination: Exploring Creativity through Improvisation and Play
Julia Ritter (Associate Professor, 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 will also include a field trip to New York City for a live performance.

American Adventure for Our Times
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’ll 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 Manhattan and crossing the George Washington Bridge on foot, or hiking along the Delaware and Raritan Canal. Beyond following the professor’s research agenda, the goal here is to have fun, to engage your imagination in relation to your immediate surroundings and environment, and to see the familiar world differently.

Painting the Town: Visual Culture in the City
Marcy Schwartz (Spanish and Portuguese)

We interact with cities when we attend a rally, watch a parade, notice graffiti, or look at murals in subway stations. The city is a space for cultural expression, social organizing, and public participation. This seminar will explore alternative visual culture, outside of museums and conventional arts institutions, in cities in Latin America and the U.S. Seminar activities will expose us to dynamic arts initiatives, such as Philadelphia’s 3000 public murals painted by community groups, Latin American short story contests offered through public transportation programs, and a new movement of alternative publishers who bind their books in hand-painted recycled cardboard. Many of these projects support environmental sustainability initiatives and rely on the public to join in their design and implementation. We will take advantage of our own local urban surroundings to experience public arts initiatives. The course’s highlight will be a field trip to Philadelphia where we will tour some of the city’s murals.

Journeys to Dazzling Pasts: The Alhambra and its Makers
Richard Serrano (French; Comparative Literature)

Nineteenth-century writers and artists rediscovered what remained of the 14th-century Alhambra Palace complex that had been constructed by the last Muslim Dynasty to rule in Spain. They imagined its past and constructed its future, looking past and beyond the gypsies who were grazing sheep in its courtyards. Today the Alhambra is a UNESCO World Heritage Site and one of the most popular tourists attractions in the world. We will examine how the poetry inscribed on its walls leads us to understand the architecture and how the last two centuries of visitors have recreated it for us.

The Emerging Dragon: Contemporary Perspectives on China
Richard VanNess Simmons (Asian Languages and Cultures)

In the past twenty-five years or so, China has burst upon the world stage from an isolated developing country to a critical world player in the age of globalization. The country’s dramatic rise has prompted many to predict that the twenty-first century will be China’s century. Is that true? Where has China come from? And where might it be headed? Through readings, videos, and discussions, this seminar explores China’s emergence and development as witnessed by people who have studied, lived, and worked there in the past quarter century. We will see China on a personal level and consider the possibilities for the future of this vast, ever changing, and multi-textured land of the dragon.
Learning in a New Land
Thea Abu El-Haj and Beth Rubin (School of Education)
How do immigrant children and adolescents experience learning in a new land? How are their experiences affected by language, culture, politics, processes of globalization, and more? This seminar addresses these questions, drawing on a variety of texts and experiences. We will read fiction, autobiography, and social science research describing the experiences of immigrant youth, and we will consider the varied perspectives these texts provide. And, we will go right to the source, asking immigrant youth about their experiences. We will do this by initiating pen pal correspondence with New Jersey adolescents, and subsequently, visiting these youth in their classroom. In the process, students will learn qualitative interview techniques for initiating these online and in person conversations.

Lincoln and Gettysburg: Three Days That Changed America
Ross Baker (Political Science)
The Battle of Gettysburg was a turning point, not only in the Civil War, but in the life of our country. The battle itself marked the last desperate effort of the Confederacy to force President Lincoln to sue for peace, but it also gave Lincoln an opportunity five months later to deliver the Address dedicating the soldiers’ cemetery in which he redefined the purpose of America. This seminar will offer an in-depth study of this key battle and Lincoln’s famous speech.

Is Water a Human Right?
Trevor Birkenholtz (Geography)
This seminar examines the historical evolution of water rights. By 2025, fifty percent of the world’s population will face water scarcity. Recognizing this, in 2002, the United Nations laid the basic foundation for an internationally codified “human right to water,” grounded in broader universal rights discourses. Yet an actual human right to water has yet to be ratified. Should water be a human right? If water is to be considered a human right, how do we get there? Would making water a human right help eliminate disparities in access to clean and safe water?

“It’s not fair!”: Complaining in Everyday Conversation
Galina Bolden and Jenny Mandelbaum (Communication)
This seminar will examine 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 will be to determine how we produce and react to complaints in our personal and professional lives. We will consider the implications and consequences of complaining in a variety of contexts, from dinner table conversations to customer service calls. We will also examine how complaints affect and are affected by our relationships.

Mama Mia!: Conceptions and Constructions of Motherhood
Laura Curran, Judith McCoyd, and Shari Munch (School of Social Work)
Mama, Ma, Mom, 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’ll 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, emotional, and economic circumstances.

The Books that Make Us
Marija Dalbello (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, and the Gutenberg Bible (the first major book printed with the printing press). We will consider their material life, the technologies necessary to produce them, and the meanings that they had for their contemporaries. How did people produce these seminal works and why? How do such important works help us make sense of our world? We’ll also think about writing itself as a technology that encompasses letters, drawings, graffiti, and illustrations; and learn how texts can be handwritten, painted, or inscribed, as well as mechanically and digitally produced. In order to view, handle, and examine actual specimens, we will take field trips to the Newark Public Library and to the Zimmerli Art Museum at Rutgers.

Energy Sustainability on Campus
Frank Felder (Bloustein School of Planning and Public Policy)
The purpose of this seminar is to learn about energy sustainability by touring various parts of the New Brunswick campuses including a solar farm, co-generation facility, energy efficient building, a research center that conducts research on off-shore wind,
and a distributed generation/micro grid computer data center. The plan is to have five, two-hour classes, which will allow for four mini-field trips at multiple locations throughout the campus. In addition, a trip to a nuclear power plant combined with another group of students will be part of the course. Drawing from the professor’s research, which includes an active research agenda for the State of New Jersey on renewable resources, energy efficiency, and other energy policies, discussions will focus on the State’s energy policies in tandem with the various site visits.

Why is it Hard to Just Say No? Topics in Addiction
Valerie Johnson
(Center of Alcohol Studies)
Team-taught by a group of faculty affiliated with the internationally recognized Rutgers Center of Alcohol Studies (CAS), this seminar explores controversial issues surrounding addictive behaviors, especially as they affect contemporary college students. Topics include drugs and sports, random drug testing, the legal drinking age, drug-use decriminalization, alcohol advertising, risky behaviors, and addiction treatments. Through discussion and debate, we will develop a broad context for understanding both addiction and efforts to address this personal, social, and public health problem. The course highlights research in the addictions and the tools needed to research and evaluate both scientific and mass-market information. Seminar includes a tour of the CAS research laboratories and library. Students who take the seminar may be invited to participate in ongoing CAS research projects the following semester.

Japanese Gardens: Art and Healing
Seiko Goto
(Landscape Architecture)
This course invites students to explore the complex relationships between people and the environment by focusing on two affective responses generated by Japanese gardens: restoration and empowerment. Through readings, discussion, lectures, and student work, the class will examine different places that evoke these responses either intentionally or unintentionally. We will look at historical and contemporary gardens which are used for restoring the mind, and study the cultural and historical backgrounds that influenced their design.

Madame President: Female National Leaders Worldwide
Mona Lena Krook
(Political Science)
This seminar will introduce students to trends in women’s leadership worldwide, focusing on the growing numbers of female presidents and prime ministers. Through readings, images, and films, we will analyze their routes to power and their performance in office. The seminar will cover both historical and contemporary examples (from the 1960s through today), as well as cases from different world regions (Europe, Latin America, and Africa). The final session will discuss the prospects for electing a woman as president of the United States.

Reframing Civility, Respect, and Human Justice
Jennifer Kurtz
(Director, Social Justice Education and LGBT Communities) and
Mark Schuster
(Senior Dean of Students)
Have social media, technology, and the internet blurred the boundaries of public and private space? Have global acts of incivility, violence, and political controversy made us less humane? Discovering the good in all of us is enriched by values of inclusivity, social responsibility, and integrity. Fluid social identities must be considered in a cultural context. Self-authorship and authentic journeys must reframe “civility” as an umbrella term for global citizenship and the ultimate human quest. This course examines privilege, oppression, the media, and socioeconomic class. What are the cultural costs of these systems of power in a complex society that disregards ethics of caring, human justice, and global responsibility? Emergent educational initiatives to promote civility will be reviewed, analyzed, and critiqued.
Chain Archaeology: 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. Archaeology 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.

Political Women: Some Who Dared

Ruth Mandel (Director, Eagleton Institute of Politics; Board of Governors Professor of Politics)

The landscape of politics has changed dramatically in recent decades. Moving onto a field once occupied almost exclusively by men, women are staking a claim on political power and leadership. While the ratio of men to women in elective and appointive positions remains heavily skewed, with men dominant everywhere, a generation of pioneering, risk-taking, and inspirational women has set an example for others to follow. In this course we will acquaint ourselves with their stories, discuss challenges they have encountered, observe their achievements, and with any luck, meet some of them in person. We will focus on women who have reached powerful positions such as governor, senator, congresswoman, cabinet officer, and Supreme Court justice. For background and context, we will look at shifting attitudes toward women in politics over the past forty years, and review their changing political roles and status.

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 gurus 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 separate 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, are 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?

Visual Communication of Science

Mary Nucci (Human Ecology)

Fundamentally, science is communicated visually. Scientists prepare and present results through a variety of traditional tools such as figures and graphs, but science is also communicated to the public through images that often become iconic representations of scientific process, progress, and imagination. This seminar will trace the history of visual science communications, introducing students to the imagery of science both within the scientific community and in public media. Starting with the earliest cave paintings through the Big Bang Theory, the course will touch on the trajectory of science visuals in paintings, science articles, newspapers, television, film, YouTube, and more, tracing how science visuals are used by scientists and science communicators in the distant past, the recent past, and into the future.

Collaboration for Learning and Performance

Angela O’Donnell
(School of Education)

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.

The Art and Science of Asking for Money: Fundraising for Disaster Relief

Ronald Quincy
(Director, Center for Nonprofit Management and Governance; School of Social Work)

In this seminar, we will examine the challenges that nonprofit organizations encounter when trying to amass the assets and resources needed to mobilize their charitable and public services for disaster relief. Traditional and nontraditional fundraising methods will be discussed. You will learn the art and science of “asking” for money, inside tips on successful grantsmanship, and how to write winning funding proposals. We will explore fundraising efforts utilized in Haiti as a case study. Following the course, students will be able to write grant proposals, enhance their techniques on how to “ask” for funding, and develop a knowledge of fundraising and strategic planning for disaster relief efforts.
Arctic Lens: A Journey to the Great North through Film
Asa Rennermal (Geography) and Hal Salzman (Bloustein School of Planning and Public Policy)
In this seminar we will explore the physical, environmental, and social dimensions of the Arctic through feature films and documentaries. Examining the rapidly changing Arctic – the global bellwether of climate change – we will draw on the research of both instructors who are currently conducting field work in the Arctic: one is a glacial hydrologist studying Greenland ice sheets and the other is a sociologist examining the sustainability of Arctic villages in the North Slope of Alaska and the impacts of offshore oil exploration. We will view four one hour-long documentaries and two feature films, and read works that provide background for our discussions. Finally, we will enjoy a trip to see Diane Burko’s exhibition on the “Politics of Snow” and meet with her in Philadelphia.

The Environment and YOUR Health: Global Health Issues in the 21st Century
Mark Gregory Robson
(Dean, Agricultural and Urban Programs; Entomology)
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’ll discuss global environmental health issues, in particular those dealing with problems such as water and air pollution, food production and food safety, and infectious diseases 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.

The Self and its Disorders
Louis Sass (Clinical Psychology)
In this seminar, you will be introduced to current thinking about several personality disturbances or mental disorders that involve major alterations of the self or sense of identity: narcissistic, borderline, schizoid, and schizophrenic conditions. We will discuss theories from psychodynamic, cognitive-behavioral, and existential psychology. We will pay special attention to the perspective of the suffering individual, the possible relevance of modern and postmodern cultural factors, and the relationship between madness and rationality. The seminar offers an introduction to some key topics in contemporary psychiatry and clinical psychology.

Anonymous Agencies, Backstreet Businesses, and Covert Collectives: A Journey into Hidden Organizations
Craig Scott (Communication)
Contemporary society is increasingly characterized by various hidden collectives that regularly escape our attention amid the focus on more transparent/visible organizations. Among these more hidden collectives are terrorist cells, undercover government agencies, crime cartels, shadow economies, anonymous support groups, online hacker organizations, stigmatized businesses, new religious groups, secret societies, and various other underground organizations. Yet, these organizations matter because of their growing size, substantial influence, and their potential to act without accountability. This seminar will take us on a rare journey into this world of hidden organizations that goes beyond media portrayals. Specifically, we will examine these organizations in terms of how they and their members communicate and conceal their identity to various audiences. The goal here is not only to expose students to interdisciplinary research about hidden organizations and how they compare to one another, but also to help students think about issues of transparency and anonymity when it comes to collectives in contemporary society.

Growing Up on The Wire: Exploring Adolescents’ Lives in Urban Settings
Cassandra Simmel
(School of Social Work)
The HBO series The Wire is considered a masterpiece by many TV critics. Part of this praise stems from its stark, realistic, and compelling depiction of adolescent characters. Using this series as the focal point, this seminar will explore adolescents’ psychological development, and how it is affected by different family, neighborhood, and societal factors. We will examine the depiction of adolescents in The Wire and compare how they are portrayed in this series and by the general media. Do adolescents get a bad rap? Do we pay enough attention to how and where adolescents grow up? How is identity formation influenced by complex family and social relationships? Please note that watching the first season of The Wire is required for the course; in addition, there will be some readings on the topic of adolescent development.

Journeys through Poverty: Voices of the Poor
Allison Zippay
(School of Social Work)
Who is poor in America? Why are they poor? What do we do about it? What works and what doesn’t? The poor encompass a diverse population of working families, the homeless, children, seniors, chronically ill, and many others. We will discuss our historic and contemporary attempts to tackle poverty—from “poorhouses” to current welfare programs. We will visit soup kitchens, innovative housing programs, and other programs for the poor, and hear the stories of those who struggle to get by—and their plans and hopes for upward mobility.

Voices of the Poor
Journeys through Poverty
Growing Up on The Wire
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The Self and its Disorders
Arctic Lens: A Journey to the Great North through Film

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Can Exercise Change Your Brain?
Brandon Alderman (Exercise Science and Sports 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.

High Tech Sustainability: Food for Thought
A. J. Both (Environmental Science)
You’ve probably heard the slogan “Buy Local” and know about the growing popularity of urban gardening and farmer’s markets around the US. The Obamas have even planted a vegetable garden at the White House as part of this movement. But how can we maintain a safe, year-round supply of food and flowering plants in the face of increased energy costs, food safety concerns, and environmental issues? In this timely seminar, you will learn the fundamentals of growing plants in controlled environments such as greenhouses. In particular, we’ll investigate the challenges and opportunities associated with sustainable greenhouse production. We’ll visit greenhouse facilities on Cook Campus, learn about different greenhouse production systems, and work in teams to present a topic for class discussion on issues related to controlled environment plant production.

Obesity Today: Health, Environment, and Society
Sara Campbell (Exercise Science and Sports Studies)
Obesity has become a serious health issue in America; in the last twenty years, rates of obesity in every state have risen by at least ten percent. Most of the strategies aimed at combating obesity focus on prevention and treatment; First Lady Michelle Obama has started the “Let’s Move” campaign and the USDA recently released “MyPlate,” an icon designed to replace the food pyramid as the go-to guide for how to eat healthy. In this seminar, we will focus on investigating the environments that promote unhealthy eating habits and sedentary behavior, and understanding their physiological consequences. Students will learn about making healthy eating choices and designing appropriate exercise plans.

The Role of Pharmaceuticals in Modern Health Care
John Colaizzi (Ernest Mario School of Pharmacy)
What are drugs and pharmaceuticals, and what do they do? How important are they in today’s health care system in the U.S. and globally? This seminar surveys the relevant and interesting aspects of drugs in America and the seemingly miraculous things they do to prevent, cure, and treat diseases of all types. It also explores controversial topics like drug abuse, addiction, Medical Marijuana, and the high cost of drugs. We will examine various careers associated with the discovery, development, prescribing, dispensing, and sale of drugs in the pharmaceutical industry and governmental agencies like the FDA. We will also discuss how best to prepare for such careers.

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 bioethical challenges of anti-bioterror research.

The Theory That Wouldn’t Die
Edwin Green (Ecology, Evolution, and Natural Resources)
What is the difference between a guess and an inference? An inference is based on evidence and reasoning, and scientists use inference to develop theories. In this seminar, we will explore the life (and death?) of one particular theorem: the Bayes theorem of probability. We will trace the fascinating tale of how Bayes theorem has been declared dead several times by leading mathematical statisticians, only to keep popping up as investigators in other fields used it to solve real problems like cracking the Enigma code in WWII and locating missing nuclear bombs during the Cold War.
Spinal Cord Injury and Stem Cells: Pushing the Frontiers, Raising the Ethical Questions

Martin Grumet, Patricia Morton, and Wise Young (Cell Biology and Neuroscience)

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’s like to live with a spinal cord injury.

Web Diving and the Quest for Creativity

Casimir Kulikowski (Computer Science) and Charles McGrew (Laboratory for Computer Science Research)

As artificial intelligence, cognitive science, and computer vision help us develop increasingly more sophisticated computational models of reasoning, our understanding of how to develop better natural interfaces between people and information on the web increases by leaps and bounds, unleashing the potential for creativity in design, layout, composition, and information integration tasks. Students will work in two-person groups, creating original interfaces to explore data and knowledge on specific topics, including multimedia information on music, museum collections, and other archival materials on the web, and present it via a web browser. Analytics methods will be discussed and used. The data—text, audio, images, and video—will be the same for each group, but the interpretation and presentation of it will be up to individual students, guided by the advice of the faculty. Emphasis will be placed on originality (i.e. “coolness”) of their web client’s presentation of information, and on completeness of access to all data available.

Climate Change and Water Resources

Jim Miller (Marines and Coastal Sciences)

What are the global geopolitical and policy implications of climate change? This seminar will introduce students to global climate change that is occurring in response to increasing levels of atmospheric greenhouse gases. After an introduction to the science of climate change, we will focus on potential future changes in water resources, both globally and in New Jersey, including the potential for increased floods and droughts, sea-level rise and coastal salt-water intrusion, and changes in groundwater reservoirs. Hands-on assignments will include learning about the sources of water in students’ hometowns, how the water is obtained and processed, and what local companies are doing to address climate change. This seminar may include a boat trip on the Raritan River and/or a field trip to a local water processing plant.

Green Cuisine: Exploring New Jersey’s Shellfish Resources

Daphne Munroe (Haskin Shellfish Research Lab) and David Bushek (Marine and Coastal Sciences)

There are a number of benefits from choosing to eat lower on the food chain, and green diets have become a popular way to improve one’s health and carbon footprint. Daphne Munroe will introduce the concept of green cuisine and will provide a basic overview of shellfish and what types of shellfish are found in New Jersey. An exploration of the different types of shellfish found in New Jersey and a look at the current status of these species will be presented. Daphne will then take you to the Raritan River and/or a field trip to a local water processing plant.

Space Exploration in the 21st Century

Doyle Knight (Mechanical and Aerospace Engineering)

This seminar will explore the economic, political, and social impact of the extraordinary growth of space programs in the 21st Century. In contrast to the Cold War era when space exploration was dominated by the United States and the Soviet Union, there are currently nine countries plus Europe (European Space Agency) engaged in space missions. Additionally, there are more than 50 countries presently operating earth satellites for telecommunications, weather, surveillance, and other purposes, and the number is expected to increase dramatically over the next several decades. Moreover, several countries are in various stages of planning year-long human missions to Mars, and robotic exploration of the outer planets in the solar system remains an active area of investigation.

What is Plastics Engineering—And Why Should We Care?

Jennifer Lynch and Thomas Nosker (Materials Science and Engineering)

Americans have a love-hate affair 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, I-beams, bridge substructure, and decking. The seminar culminates in a field trip to a vehicular bridge in New Jersey composed of a recycled plastic lumber blend or to a plant where recycled plastic lumber is manufactured.
footprint. Foods like oysters and clams are a great source of protein and are a low trophic level filter feeder, making them an ideal, albeit often overlooked, component to a “green” diet. This seminar will focus on the shellfish resources and industry in New Jersey. It will explore the fisheries in New Jersey and explain the role of aquaculture production of shellfish. The costs and benefits of these foods will be discussed in terms of human health, production costs, and ecological interactions, and field trips to Rutgers research facilities will allow students to explore firsthand the shellfish industry in New Jersey.

The Future is Solar: Harnessing Sunlight to Meet Worldwide Energy Demands
Robert Niederman (Molecular Biology and Biochemistry)

Within fifty years, the world’s primary energy source, usable fossil fuel, will be depleted. Where will our energy come from then? One answer lies in our ability to harness sunlight as a source of clean and renewable energy. In this seminar students will learn how an improved understanding of photosynthesis—especially in simple organisms such as photosynthetic bacteria—can help scientists harness solar energy for a variety of applications: from solar-driven microbial bio-refineries that produce molecular hydrogen as a fuel source, to the fabrication of bio-solar photoelectric cells that can convert sunlight into electric current. Readings and discussion will be based on current popular science literature.

Illusions: A Royal Path to Brain Research
Thomas Papatheomas (Dean, Busch Campus; Biomedical Engineering)

In the famous “figure-ground” drawing, a black-and-white image appears to be 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’ll examine how the brain organizes information that it gathers through sight and sound by using psychophysical methods and brain imaging. Next, we’ll use illusions in vision and audition to test the hypothesis that perception is not only an automatic, datadriven (“bottomup”) process, but it is also subject to cognitive, schemadriven (“topdown”) influences. Examples will include an “everascending 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.

“...”

Can Junk DNA Make Us A Junkie?
Andrzej Pietrzykowski (Animal Science)

Most of our DNA (ninety-eight percent) is labeled by scientists as “junk,” meaning that we have not been able to identify any function for these parts of the DNA sequence. Does this apparently purposeless DNA play any biological role? Recent discoveries have allowed us to peel off “the junk DNA” label from at least some DNA, indicating that genes encoding microRNA and other RNA species play critical roles in the function (and malfunction) of almost every living organism. One malfunction found across centuries, cultures, and continents is drug addiction. How addiction develops is still unclear, but recent findings indicate that microRNA is essential for drug addiction. We will look with a fresh eye at the structure of our genome, the role of microRNA and other RNAs in biology, and discuss the possibility of novel, microRNA-based therapies. We will also take a day trip to Cold Spring Harbor Laboratory and the Dolan DNA Learning Center to examine DNA research up close.

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

In this seminar we will discuss several examples of chaos and pattern formation from physics, chemistry, and biology. We will explore examples such as the dripping faucet—which we will show undergoes a transition to periodic, at low water flow, to period doubling to chaotic as the flow rate increases. We will discuss the history of the field starting with Poincaré’s revelation that planetary orbits in the solar system are not stable, leading through Lorenz’s discovery that models for the weather exhibit strange attractors, and culminating in modern studies that reveal chaos and pattern formation in the heart. The seminar will be example-oriented, using simple models that only require elementary algebra.

Cooking Through Change: A Spicy Walk through the Last 10,000 Years
Lena Struwe (Ecology, Evolution, and Natural Resources)

Calling all “foodies!” In this seminar, we will explore the evolution of cooking and taste from a scientific and historical perspective. Since the beginnings of agriculture, humans...
migrated, fought and/or traded with each other, and experienced natural disasters—how did this affect what was grown, eaten, and cooked? How have cooking and taste changed with the introduction of new ingredients and spices from far-away places? How has the movement of major crops around the world affected the history of humankind? We will discuss many “what-if” scenarios including: what if Columbus hadn’t “discovered” America; what to bring if you have to survive on an island; and how to produce and cook your own food here in NJ in the face of a natural or manmade disaster. We will eat wild weeds, and sample old-fashioned and high-tech food.

Harry Potter and Behavioral Genetics
Lei Yu (Genetics)

Our behavioral patterns are deeply rooted in genetics. Not only do they include patterns of physical behaviors, but they also include patterns of cognition and thought processes. We readily observe such patterns in daily life, even though it is not easy to determine their genetic basis. In this seminar, we will use examples of behavioral patterns from the popular Harry Potter book series as a literary platform to introduce scientific approaches for studying behavioral genetics.
Odysseys Past and Present:
Migrations, Pilgrimages,
and Quests

The First-Year Seminars at Rutgers-New Brunswick were launched in fall 2007 under the leadership of then President Richard McCormick and former Vice President for Undergraduate Education Barry Qualls. The program was re-named the Byrne Family 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.

About Byrne Seminars

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Director of Byrne First-Year Seminars: Angela Mullis, Ph.D.
Program Coordinator of Byrne First-Year Seminars: Brian Register
Ever since Homer’s *Odyssey*—or even Gilgamesh before—rendered life as an epic journey, metaphors of the road have served to frame life’s experiences. Vision quests and pilgrimages to sacred shrines have stood in for semi-autonomous quests for meaning, happiness, and/or fulfillment, and an individual’s exploration into the unknown—the wilds of the frontier, the depths of the ocean, or the vastness of space—have become odysseys attached to whole nations. Often self-exploration, the turn inward—religious or psychological—raises specters of the “road not taken.” And during the 1960s, getting lost was hailed as the only way to find oneself.