



SPLASH BULLETIN 2005



STANFORD EDUCATIONAL STUDIES PROGRAM

What is Splash?

Splash is a one-day program of classes on a variety of fun and interesting topics. Splash classes are designed by their teachers, most of whom are Stanford students. Splash is an opportunity to learn about things you're interested in but might not otherwise have the chance to study.

This year, Splash will take place on January 29th. Classes vary in length; you can take as many as fit into your schedule.

Splash is put on by the Stanford Educational Studies Program (ESP). ESP is a volunteer student organization at Stanford University that has been providing fun and meaningful educational opportunities to high-school and college students since 1996. We are based on a program of the same name at the Massachusetts Institute of Technology that has been in operation since 1957.

What are the Classes?

This year over 30 classes will be offered on a wide variety of topics. This bulletin lists all of these classes along with their descriptions, teachers, and course numbers. The class descriptions are sorted by subject category followed by the courses by meeting time.

This bulletin is also on our webpage.

<http://www.stanford.edu/group/esp/>

Contact us (see information below) if you would like additional printed copies.

How Do I Sign Up?

The preferred method to sign up for classes is via our website, <http://www.stanford.edu/group/esp/>. If you do not have Web access or if you prefer to register by other means, please contact us by e-mail (esp@lists.stanford.edu) or by mail at the address below and we will mail you a registration form or register you over the phone. Walk-in registration on the day of Splash is also available.

The fee for Splash is \$20: this covers as many classes as you can fit into the day. We are willing to reduce or waive tuition if it presents a financial hardship, please see the back of this bulletin for details. Group discounts are also available, as indicated in the chart on the back page.

Contacting ESP

The best way to learn more about Splash and ESP is by visiting our webpage:

<http://www.stanford.edu/group/esp/>

If you have questions you can reach us by e-mail (esp@lists.stanford.edu). Our mailing address is:

Educational Studies Program
Haas Center for Public Service
562 Salvatierra Walk Stanford, CA 94305-8620

SPLASH 2005 Student Registration Form

Photocopy for additional students – please write clearly

To complete this form, you will need the Splash bulletin, which describes all the Splash classes.

If this form did not come with a bulletin, you can view the bulletin online <http://www.stanford.edu/group/esp/> or request a printed copy via e-mail (esp@lists.stanford.edu).

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____ HIGH SCHOOL GRADUATION YEAR: _____

EMAIL: _____

SCHOOL NAME: _____

HAVE YOU PARTICIPATED IN ESP PROGRAMS BEFORE? _____

EMERGENCY CONTACT

NAME: _____ PHONE: _____

CLASS CHOICES

CHOOSE CLASSES FROM SPLASH BULLETIN WWW.STANFORD.EDU/GROUP/ESP

Please be careful to choose classes that do not overlap. You may take as many classes as you can fit.

Time	Course # / Course Title	Please choose alternate schedule in case classes are full
10am	_____/_____	10am _____/_____
11am	_____/_____	11am _____/_____
12pm	_____/_____	12pm _____/_____
1pm	_____/_____	1pm _____/_____
2pm	_____/_____	2pm _____/_____
3pm	_____/_____	3pm _____/_____
4pm	_____/_____	4pm _____/_____
5pm	_____/_____	5pm _____/_____

Please check the following:

I will pay on the day of SPLASH (check or cash) a fee of \$25 (the fee is only \$20 if you register in advance online – highly recommended!)

Please waive my fee (for financial reasons)

Please do not forget to bring a completed Liability Release form the day of SPLASH.

A copy of all materials can be found on our website:

<http://www.stanford.edu/group/esp>

Sciences

SC-1**Green Energy: Learning from Plants to Find Clean and Renewable sources of Energy***Julia Zaks*

In this class, you will learn about solar energy and how scientists are looking to nature to find ways of increasing the efficiency of solar energy. First we will talk about the difference between renewable and non-renewable energy. We will discuss existing energy sources (such as fossil fuels), and why we need to look for alternatives. From here, we will go on to learn about new solar technologies, particularly those that are inspired by plants. For example, researchers recently developed a solar cell that runs off of proteins extracted from spinach! We'll talk about the technology that make such a solar cell possible, and possible ways in which this solar cell can be applied. I believe that looking at plants is a great way to learn about how we can make solar cells more efficient, because plants and other photosynthetic organisms are very good at converting light into chemical energy—they have to be, since that is how they obtain the energy to grow and reproduce!. The purpose of this class is twofold: to inform you about the need for renewable energy and the ways in which people are working towards it, and to inspire you to think about how we could find renewable, clean, and environmentally friendly sources of energy. You don't need any science or math background, just an interest in learning about current energy problems and thinking creatively about how to approach them.

SC-2**This is Your Brain on Drugs***Larry Ozowara*

What do ecstasy and pesticides have in common? How does prozac work? Why do people have "blackouts" when they drink too much? This is an introductory seminar exploring the relationship between various drugs and the brain. Topics include PCP, antipsychotics, date-rape drugs, and more.

SC-3**Introduction to Artificial Intelligence***Gabriel Recchia*

Why is it that computers can beat world chess champions, yet can't converse at the level of a five-year-old? What would it mean for a machine to "think"? In this class, we'll explore the notion of what is meant by "artificial intelligence" and learn about some of the hard problems in its numerous subfields. We'll also see a few demos that demonstrate the state-of-the-art in some of these areas (technology permitting). Get ready to have fun and gain an appreciation of the factors that make human activities like understanding English, recognizing faces, and playing soccer so difficult for computers. Other possible topics include the history/philosophy of artificial intelligence, how it is often (mis)represented in science fiction and the media, and what AI research is going on right here at Stanford—it all depends on what you want to learn. Come with questions!

SC-4**From Conception to Birth: the Biology of Human Prenatal Development***George Capps*

In this course, we will explore the fascinating secrets that science reveals about how human life begins—how a tiny zygote, smaller than the point of a pen, develops into a newborn baby. The focus will be in particular on the first eight weeks of development, which see the most far-reaching physical transformation that will occur in that organism's life. Beginning with gamete meiosis, we will cover fertilization, blastocyst formation, monozygotic twinning, gastrulation, neurulation, organogenesis, and all the major stages of prenatal development in enough depth to be meaningful but without getting too technical. The material will be presented in a variety of methods, including lecture, video and other visual material, reading, and interaction with fellow students. Come participate in this fast-growing field and discover the mind-bogglingly intricate and yet profoundly beautiful process of development, hidden for millennia in the darkness of the womb, but at last beginning to be revealed by modern science.

SC-5**Mechanisms of Neuronal Degeneration***Jonathan Chou*

Neurodegenerative diseases are among the most severe illnesses that human society faces today. Each year, millions of Americans are

diagnosed with these disorders, including Alzheimer's disease, Parkinson's disease, and Huntington's disease. This course will examine the most recent understanding of molecular and cellular mechanisms underlying neuronal degeneration and neuron death. The first half of the course will be an overview of important cellular biology required to understand the topic of neurodegeneration including: introduction to the neuron; structure and function of microtubules; molecular transport motors; the secretory pathway; and neural synapses and vesicle release. The second half of the course will emphasize recent work on toxic protein aggregates; disorganization of the cytoskeleton; involvement of the ubiquitin-proteasome system; and axonal defects in neurodegenerative diseases. Mechanisms of specific diseases will be incorporated to illustrate topics that are discussed.

SC-6

Concepts in Social Psychology: Attractiveness and Persuasion

Yogesh Raut

This class will consist of two one-hour lectures on two of the most fascinating areas of social psychology: attractiveness and persuasion. These are two of the most fascinating aspects of social psychology, and two which are extremely relevant to our daily lives. Each lecture will consist of fun yet informative illustrations of key topics in the field, with emphasis on the underlying scientific research backing up each claim. There will also be a discussion element to the class, so that students can clarify and comment on ideas covered in the course, interject their own thoughts, and debate controversial issues. Among the questions we will address are:

Attractiveness – Why are some people considered more attractive than others? What are the advantages (and disadvantages) of being physically attractive?

Persuasion – What is propaganda? Is it always a bad thing? What is the difference between the central and peripheral routes of persuasion?

SC-7

Cannibalism, Mad Cow, and the World's next pandemic? An Introduction to Prion Diseases

Julia Carnevale

What do all of the strange topics in this title have in common? They all have to do with the rather recently emerging diseases called prion diseases. Surely you have heard about the scare over the beef industry, particularly in Europe.

Perhaps your parents stopped buying beef for a while. But what ever happened with that scare? It turns out that this infectious disease could have an incredibly long incubation period, and it is thought that many could be infected and not know it! Most intriguing of all is that this biological phenomenon is the most bizarre, unexpected mechanism of disease transmission and pathology that we have seen. The prion is not a virus, not a paramecium, not a bacteria...nothing like any of these. No, the prion is just a protein! This protein can replicate itself in a surprising way and it is virtually indestructible. Come learn about this wonder of biology and hear about the history of how it was discovered in a cannibalistic tribe in New Guinea. This is a class you do not want to miss!

SC-8

Disorders of the Brain

Julia Carnevale

Most people know someone with a disease or disorder of the brain or nervous system. Whether it's a neighbor with autism, or a grandmother with Alzheimer's. This course is for anyone with interest in the science that goes on behind these disorders. We will go over the genes, the proteins, and the mechanisms behind neurodegenerative diseases such as Alzheimer's disease, Huntington's disease, Parkinson's disease, and Multiple Sclerosis. We will also learn about various developmental disorders including autism, William's syndrome, epilepsy and a number of others. This class will be fun, engaging and incredibly informative. It is an overview of many of the major disorders of the brain and nervous system that plague our society. If you like biology and if you are interested in the brain, this class is for you.

SC-9

Nice Guys Finish Last? The Evolution of Altruism

Sarah Skikne

Darwin's theory of evolution proposes survival of the fittest – only the strong survive. Animals should spend all of their time looking out for numero uno, ensuring the survival of their genes and only their genes. So why do animals (like humans) ever spend energy helping each other? What is the evolutionary benefit of being nice? In this class we will look at the basics of evolutionary theory, and then some possible explanations for how altruism and other

“nice” social behaviors evolved in the animal kingdom.

SC-10

Venture Everything: The Case for a Lifeboat Ethics

Nikki Serapio

Ought we to assuage the suffering of peoples in distant countries? If so, to what extent? And to what extent, really, are my current moral and emotional attachments—to my family, to my nation, to my *self* as an autonomous and private agent—just the products of my own unjustified prejudices? In this class we will attempt to answer these questions by three means. First, we will consider the philosophical theories and political programs of John Rawls, Martha Nussbaum, and Peter Singer. Second, we will look to our media—to U.S. newspaper editorials, television programs, and government human rights documents—in order to find possible candidates for our moral concern. Last, the students will be confronted with a case for “lifeboat ethics.” Using their new knowledge, they will consider various hypotheticals that all support particular courses of action: give up your patriotism, expand your global picture of the poor, identify the grossest social wrongs and address these first.

Physics & Mathematics

P/M-1

Thermodynamics: The Hidden Physics of Time

Immanuel Buder

Why is the past different from the future? What is the meaning of temperature, and how can we define it sensibly? What is entropy, and why are there irreversible processes if the laws of physics are symmetric in time? Thermodynamics is the branch of Physics that tries to answer these questions and many others. In this two-hour class we will introduce the theory of thermodynamics and explore some of its consequences. Emphasis will be placed on conceptual understanding and problem solving. An optional one-hour study session will be offered to solidify the understanding gained in the lecture. We will solve some classical problems in Thermodynamics and cover more advanced topics, if time permits. The study session will be more informal than the lecture,

allowing students to work on problems and learn at their own pace.

Recommended Background: High school physics or chemistry is recommended. One year of pre-calculus or single variable calculus is also suggested.

P/M-1.5

Thermodynamics: The Hidden Physics of Time Study Session

Immanuel Buder

P/M-2

The Wonderful World of Particle Physics

Michael Shaw

Physicists love to talk about particles: the Higgs boson, the strange quark, the pi meson, the muon neutrino, and my personal favorite, the gravitino. But what are these? And what the heck do they have to do with matter as we know it? In this course, I'll give a (very) brief overview of modern particle physics--with no math at all. Ok, maybe a little math. We'll talk about why physicists are looking for all these particles, how they all fit together in a "standard model" of the universe, and what these particles really are anyway. By the end, you'll have a "cocktail party" knowledge of some of the coolest physics in the world. We'll conclude with some of the research being done today in the field, at my home school of MIT, and right here at Stanford.

P/M-3

To the Stars: A Course in Modern Astronomy

Michael Shaw

Imagine life as an astronomer. You're trying to figure out what's happening billions of miles away. Your only tool is whatever light happens to reach Earth, through billions of miles of gas and dust--not to mention everything else in the universe. In this course, we begin to investigate this problem, using all the tools at our disposal. We'll start off with a brief history of astronomy, and then spend most of the class talking about some modern problems in the field--about the life cycle of stars, and the structure of the universe itself. At the end, I'll discuss my research into using really big computers to help us out. And to quote a very cute movie (brownie points for figuring it out): Where will we go in this course? "To infinity, and beyond."

P/M-4

Mathematics of Origami: The Universe in a Fold

Wataru Ebina

Origami, the Japanese art of paper folding, has become a worldwide pastime over the past few decades. Despite its procedural simplicity, origami can transform ordinary sheets of paper into anything imaginable. Many enthusiasts appreciate origami's infinite capacity for artistic expression; however, very few are acquainted with origami in mathematical contexts. In this class, we will discuss some discrete mathematical rules that underlie paper folding, and use origami as a tool to solve problems ranging from algebra to geometry. Topics covered include: axioms of origami operations, construction of parabola and polygons, solutions to polynomials, and folding paper for fun!

Prerequisite: High school geometry.

P/M-5

The Game of Dots and Boxes

Theodore Hwa

You probably played the game Dots and Boxes as a child. The game starts with an empty grid of dots; on each turn, you connect two dots horizontally or vertically. A player who completes a box writes his or her initials inside and takes another turn. When no more moves are left, the player with the most boxes wins. However, the game is not as easy as you may remember it. We will begin by studying the game of Nim and giving a complete strategy, and then describe how the theory of Nim is applicable to a surprisingly wide class of games, including the Dots and Boxes.

P/M-6

The Number 11 and Other Math Tricks

Jonathan Drucker

In this short class you will learn some of my favorite math tricks, including:

- How to multiply numbers by 11
- How to easily square numbers ending in 5
- How to find the square roots of such large numbers as 25,281 IN YOUR HEAD!

Students will also learn how to generate such nifty mathematical phenomena as Sierpinski's Triangle, Pascal's Triangle, and Fibonacci's Sequence and see how Pascal's Triangle relates to the number eleven.

Prerequisites: Solid understanding of two-digit multiplication and the concepts of squaring and square roots.

P/M-7

Aircraft Design and Glider Flight

Bernardo Malfitano

In this class, you will learn the fundamentals behind much of aircraft design, including the aerodynamics of drag and of lift, and specifically how those affect the gliding characteristics of an airplane. You will learn about the important role of gliders (engine-less airplanes) in aviation, and about the unique challenges facing the design of gliders. You will then design, build (out of foam) and test a large unmanned glider, to see if you can make some of the tough engineering choices that face aircraft designers by applying the scientific principles and engineering ideas this workshop discusses.

Social Science

SS-1

The Other Side of Health Care in America: Clinical and Political Responses to Mental Illness in the Veterans' Population

Benji Hassid

This class should be interesting for any students possibly interested in a career in health care. This class will provide an overview to the problem of mental illness in geriatrics patients, specifically the war veterans' population. Not only will we explain the biological basis of common illnesses like Alzheimer's and dementia, we will also analyze the public's reaction, through policy, social norms, and prevalent attitudes. We will start by describing common diseases of the nervous system that affect this patient population from a biological perspective, as well as palliative care and the special ethical considerations of geriatrics care. Next, we will do a case study of patient with Alzheimer's, from onset to death. In discussing solutions, we will provide an overview of cross-cultural elderly care, including family-based treatment, research and innovations unique to nations outside the US. After we discuss prevalent attitudes toward geriatrics care in the US, and how they differ worldwide, we will mention some of the opportunities for health care professionals in this field. To give more insight into careers that serve mentally ill veterans, we hope to have a guest speaker from the Menlo

Park VA visit our class. Additional non-lecture material will include excerpts from a drama about hospitalized veterans, a documentary on the economic issues of managed care, and another film on the progression of Alzheimer's and its impact on the relationship between a grandmother and her family. This will segue into our final three topics: legislation that impacts geriatric medicine, background on the VA system, and the importance of volunteerism. We will close by inviting students to discuss how they anticipate the future for elderly care will shape their lives when they need treatment, as well as any personal experiences they have had with health care in the geriatrics and/or veterans' population.

SS-2

Misleader Vs. Flip-Flopper: The Rhetoric of the 2004 Presidential Election

Kai Lukoff

Labels and catchphrases shape our political landscape: "Two Americas," "compassionate conservatism," "middle class squeeze," "tax relief." Aside from being repeated so often that they make us cringe, they also frame the way we think. Democrats often say, "The issues were on our side." If that is the case, then they failed to capitalize in 2004. Republicans touted a message of "Steady leadership in a time of change" to great success. What went awry for Democrats but worked so well for Republicans?

The course will analyze rhetoric used in the campaign and discuss its effectiveness. Where were Bush and Kerry strong and weak in their messages? We will watch and critique portions of the Bush-Kerry debates and various campaign ads, and draw on expert commentary from Jon Stewart, Prof. Lakoff, and Prof. Iyengar. What politicians say is important—but to understand how they say it allows you to realize how politicians want you to see things and what is conveniently left out of the picture.

There will be a hands-on opportunity for students to design and present their own rhetoric on an issue. If you were running for President, would you call the fighters captured in Iraq "rebels," "insurgents," or "terrorists?" What would be the accuracy and the advantages and disadvantages of each term? In framing a stance on education, how could you portray a nurturing image while avoiding accusations of big government and increased taxation? Unless "taxing and spending" or "warmongering" has you too busy to attend, hope to see you in class!

SS-3

The Roaring 20's - Politics and Culture of the German Weimar Republic

Lindsay Dahms

The Weimar Republic was undoubtedly one of the most important eras of the twentieth century. Both politically immature and culturally explosive, the Republic gave rise to infamous National Socialism and to some of the most progressive artistic and literary movements to date. Women cut their hair and started wearing nylons, people experimented with drugs, decadent American jazz was the tune to go by, everything was out of control and over the top.

Through film, literature, music, and political articles, we will examine Germany's complex relationship to democracy, ideologies of "reactionary modernism," the rise of the "New Woman," Bauhaus architecture, the impact of mass media, the literary life, the tradition of cabaret and urban entertainment, and the situation of Jews, intellectuals, and workers before the emergence of Nazism. Our specific focus will be in Berlin - undoubtedly the center of German cultural and political life and the most desired place to be in Europe during the 1920's.

SS-4

Could You Live Without Your Parent's Money?

Shamika Goddard

The Management Science and Engineering department offers a course called Financial Literacy taught by Financial Aid Officer Mary Morrison. After taking the class, I realized how much I didn't know or really understand when it came to the foundation of our society: Money. In order to avoid years of debt and financial unhappiness, you have to learn financial literacy, or how money works. Do you know what a 401k is? How about the best way to keep your credit score down, or what it even is? Because there are so many aspects to cover, the course will touch on only a few key monetary institutions such as credit, credit cards, and taxes. There is no prerequisite for the class. The materials you should bring include: a credit card (if you own one), the paperwork your credit card came with, pen and paper. With group discussions, activities, and even a chance to win a little money, my goal is to give you a good idea of how money works.

SS-5

Spain and the Basques

Alan Anderson

This class is ideal for students interested in European history. We will take a look at the Basque region of Spain. Our purpose will be to examine the history and origins of the region and its people, the Basque language (one of 4 official languages of Spain), and important political parties such as Batasuna, the Basque separatist party. We will also focus special attention on the repression of the Basques under fascism, as well as the famous terrorist movement ETA who fight for separation from Spain. This class is relevant to the world around us as we will review historical terrorism in Spain through the lens of our modern struggles

SS-6

Don't Buy It!

A Critical Analysis of Marketing Campaigns and Political Rhetoric

Christian Karega

Have you ever heard the seen a commercial and not know the product they were selling you until the end of the commercial? Or heard a politician speak and wonder what the heck he said? Do you want to look like Tom Cruise or Catherine Zeta Jones? Well, this class will not teach you how to make commercials, be a politician, or look like Tom. We will, however, decipher some of the underlying assumptions on which marketers and political rhetoric rest and explore their affects. Both marketers and politicians are trying to sell you something-whether it is a product or themselves. This class will explore HOW they chose to do so and explore the implications of their choice. We will probe movie scenes, magazine articles, and political speeches to discuss what they say, how they say it, what they are REALLY saying and how they use language and images to make inferences. We will expose the implications of suggestive language and ambiguity. Once we have exposed the underlying assumptions, we will then analyze their affects on you as an individual, on groups, and ultimately on society as a whole.

SS-7

College Admission - How to Get into America's Top Colleges

Praveen Panguluri

In this course I will quickly go over the necessary elements to be admitted to the top universities in the world. The goal of the course

is to go into the mindset and methods behind the admissions committee to the top universities. We will be using Stanford's application as a case example and we will go through it step by step pointing out what to do and what not to do on your college application. You will be provided with tips ranging from how to write a good admissions essay to how to obtain good letters of recommendation. In addition, I will point out different ways you can differentiate yourself from the crowd of other applicants. It is never too early to start planning for college.

SS-8

Colonialism: Civilizing Mission or Humanitarian Disaster?

Jess Weiss

In the late 1800s, in what has been called the "scramble for Africa," European Powers began to carve out territorial claims all over the African continent. Rationalized as a "civilizing mission" to uplift backwards people, trading posts, churches, modern transportation, and European culture were all hailed as signs of progress that the superior West had brought to "racially inferior" people. Yet it's estimated that nearly 8 million indigenous people died in the Congo alone during Belgium's rule, and millions more in colonies all over the world. What was really going on in what Joseph Conrad describes as the "Heart of Darkness"? How did Europeans justify actions that would be called genocide today? If so many different nations were responsible for massacres all over the African continent and in other colonies, is it possible to find a common link in history? This class will explore what some have called Europe's "dark years," the short and long term effects of imperialism and colonialism on indigenous people, and the intentions, motivations, and ultimate actions of European colonists. The "scramble for Africa" will be discussed in historical context, with examination of colonial precedents and whether or not "modern imperialism" exists today.

SS-9

I Will Teach You to be Rich

Ramit Sethi

I teach a class on personal finance including banking, budgeting, and saving. It REALLY pays to start now. Check this: if you save 100

bucks/month until you're 30 (for only 10 years, then you never save money again), and your dumb friend starts later--saving 100 bucks/month from age 30 to 65 (that's 35 years compared to your 10 years)--you will have way more money (over \$100,000 more) than him at age 65. Start early and you will be rich.

Krishanu Sengupta

The class will first accumulate information about students' perceptions of the film industry. Then, it will look to break those preconceived notions. It will trace the ascension of film in America, the world, and how the two interrelate. How American film compares to other countries' and what it actually encompasses will be addressed. With a comprehensive covering of this realm, students can be opened to a breathtaking array of choices. And, ultimately, they can come to form their own opinions about what film is and what it can do for them. By the consummation of the class, students will hopefully dispel both their limited view of film along with the pseudo-elitist and exclusionary beliefs of so-called film buffs. They will tap into personal taste while being open to changing it. Ultimately, they will hopefully love the medium and its possibilities and seek out knowledge about how to broaden their perspective.

Liberal Arts

LA-1

From Romanticism to Modernism – Art and Poetry in the Early 1900s

Lindsay Dahms

The decade before the First World War was a transitional period for art and poetry, which struggled to address the complex question of how to create art in the modern world. Central in this debate was the poet Rainer Rilke, who is considered the most talented poet to compose in the German language since Goethe. Born in Prague to German parents, Rilke traveled all over the world and eventually settled in Paris to compose a series of poems entitled *New Poems*. In creating a new type of poetry, Rilke worked closely with the sculptor Auguste Rodin, who was in the process of creating a new type of art. Rilke's aesthetic philosophy was highly influenced by the sculptor, who helped him redefine the relationship of an artist to his work, and of art to the modern world. In this course, we will look at works from Rodin and Rilke and discern how their interpretations of modernism still have important meaning today.

LA-2

Philosophy of Mind

Kian Eftekhari

Have you ever wondered whether everyone else perceives the world just like you do? Or how the physical makeup of one's brain is able to create Perception and thoughts about one's environment? Philosophers have been debating these questions for centuries, and modern philosophy is centered around this question they call the mind-body problem. I will present some philosophical problems raised over the past century and attempts to resolve them by some modern thinkers.

LA-3

The World of Film: Beyond Hollywood.

LA-4

Becoming a Journalist

Christina Cacioppo

Learn how to identify and interview sources, take reporter's notes, and compile them into a first-rate news or feature story. Also, discover the unwritten rules and ethics all journalists follow.

LA-5

Fun With Philosophy

Nupur Garg

Philosophy is a subject often left out of traditional education, yet it's arguably the most intellectual of them all. In fact, everything in philosophy is arguable, and everything arguable is rooted in philosophy, as the art of arguing is itself philosophical. The counterpart to science in knowledge, philosophy addresses everything from the nature of teaching to the purpose of man, from the art of reason to the basis of justice, from the Socratic method to the deductive method, and much more. The breadth and depth of our discussion is dependent on class participation so come prepared to argue!

LA-6

Leadership and Management

Scott Lanum

The running of an organization requires a set of specific skills and traits. Individuals need to know how to motivate subordinates, respond to organizational needs, set goals, and evaluate subordinate performance. There are varied leadership types and each has a time and place. This course will dive into the basics of how to do those things mentioned above and encourage further instruction.

LA-7

Mythology

Svetlana Goldenberg

I will discuss the parallels in interpretations of the world that various cultures have developed. These similarities can be traced by comparing creation myths, religious rituals, and ideas of how the world is organized. I plan to introduce the most important Greek, Norse, Egyptian, and possibly Japanese myths (depending on time constraints) and use them as the foundation for the discussion.

LA-8

Introduction to Arabic

Juliet Frerking

Curious about the world's fourth most spoken language? This course will cover the differences between fusah (Modern Standard Arabic, like that spoken on Al-Jazeera) and the five main spoken dialects. You will learn a few key phrases in spoken Arabic, as well as the beginning ayat (verse of the Qur'an). Since the Qur'an cannot be translated, Arabic is considered to be a holy language, uniting Muslims everywhere from China to Saudi Arabia to Indonesia to France. Basics about the Arabic alphabet and Muslim culture will be expounded upon as well.

LA-9

Shakespeare

Elaine Theios

This class will focus generally on Shakespeare's works and their lasting impact and popularity, with a focus on his comedy in *The Comedy of Errors*. Is Shakespeare still funny? Why? How do those producing his plays deal with these issues? We will also be looking more generally at common themes and his use of poetry and prose in plays such as *Othello* and *Henry V*.

Arts Interests

AI-1

Fresh Hot Art: From the Renaissance to You

Mary Hurlbut

Do you like art, or do you wonder how famous artists do their work? Come and try out techniques used by Renaissance masters like Michelangelo and modern artists like Jackson Pollock. Watch videos of twentieth century artists like Jackson Pollock and Jim Dine at work. Hear a short lecture and look at slides detailing the process Michelangelo and other Renaissance artists used to decorate large areas like the Sistine Chapel ceiling. Using variations of these techniques, you will have the chance to draw, paint, plaster or splatter your own masterpiece, just as these famous artists did.

AI-2

Photography from Start to Finish

Abby Loughrey

Are you interested in art, engineering, or anything in between? Come learn about the surprisingly simple photographic process and what happens before and after you open the shutter.

You will begin the class by building your own pinhole camera from a shoebox (don't forget to bring one!). Yes, shoeboxes actually produce quality photographs. There are even some professional photographers who use only this process. The class will then trek outdoors to set up the cameras to take photographs of the scenic Stanford campus while discussing compositional and lighting techniques. After taking the photographs you will develop them in a darkroom. Here you will learn about developing chemicals and how to create a darkroom in your own bathroom.

During the class you will also learn how the pinhole process relates to the conventional process: 35mm cameras and drugstore developing. Hopefully you will be inspired to start a new hobby or at least the mystery will be removed from the "magical" process of photography.

AI-3**The Passion of the Dance: Flamenco***Marina Elana Scannell*

Do you want to be a part of the craze that's sweeping over the nation? Flamenco music and dance is gaining popularity all over, but especially San Francisco, the hottest and best spot for flamenco in the U.S. Flamenco, which originated from gypsies in Southern Spain, is full of passion, love, and most importantly narcissism. In this class, we will be watching film clips and concerts of Spain's hottest dancers in order to get the full feel of what flamenco is all about. We will then learn flamenco's basic techniques ~zapateado (footwork), braceo (arms) and include that in a hot and modern flamenco choreography. No dance experience required. Please no heels over 2 inches. Ladies will need a full length skirt for this class

Classes By Time

SS-9.1	I Will Teach You to Be Rich	10 am – 11 am
SC-2	This is Your Brain on Drugs	10 am – 12 pm
SC-3	Introduction to Artificial Intelligence	10 am – 12 pm
SC-8	Disorders of the Brain	10 am – 12 pm
P/M-1	Thermodynamics	10 am – 12 pm
P/M-2	The Wonderful World of Particle Physics	10 am – 12 pm
SS-1	The Other Side of Health Care in America	10 am – 12 pm
LA-1	From Romanticism to Modernism	10 am – 12 pm
LA-2	Philosophy of the Mind	10 am – 12 pm
P/M-1.5	Thermodynamics Study Session	1 pm – 2 pm
SS-4.1	Could You Live Without Your Parent's Money?	1 pm – 2 pm
P/M-6.1	The Number 11 and Other Math Tricks	1 pm – 2 pm
SC-5	Mechanisms of Neuronal Degeneration	1 pm – 3 pm
SC-6	Concepts in Social Psychology	1 pm – 3 pm
P/M-3	To the Stars	1 pm – 3 pm
P/M-4	Mathematics of Origami	1 pm – 3 pm
SS-3	The Roaring 20's	1 pm – 3 pm
LA-4	Becoming a Journalist	1 pm – 3 pm
LA-5	Fun With Philosophy	1 pm – 3 pm
LA-6	Leadership and Management	1 pm – 3 pm
AI-2	Photography from Start to Finish	1 pm – 3 pm
SC-4	From Conception to Birth	1 pm – 4 pm
SC-10	Venture Everything	1 pm – 4 pm
SS-6	Don't Buy It!	1 pm – 4 pm
P/M-7	Aircraft Design and Glider Flight	1 pm – 4 pm
SS-4.2	Could You Live Without Your Parent's Money?	2 pm – 3 pm
P/M-6.2	The Number 11 and Other Math Tricks	2 pm – 3 pm
SS-8	Colonialism	2 pm – 4 pm
LA-8	Introduction to Arabic	2 pm – 4 pm
SS-2	Misleader Vs. Flip-Flopper	2 pm – 5 pm
LA-3	The World of Film	2 pm – 5 pm
AI-1	Fresh Hot Art	2 pm – 5 pm
SC-7	An Introduction to Prion Diseases	3 pm – 5 pm
SC-1	Green Energy	3 pm – 5 pm
SC-9	The Evolution of Altruism	3 pm – 5 pm
P/M-5	The Game of Dots and Boxes	3 pm – 5 pm
SS-5	Spain and the Basques	3 pm – 5 pm
SS-7	How to Get Into America's Top Colleges	3 pm – 5 pm
LA-7	Mythology	3 pm – 5 pm
LA-9	Shakespeare	3 pm – 5 pm
AI-3	The Passion of Dance	3 pm – 5 pm

P/M-6.3
SS-9.2

The Number 11 and Other Math Tricks
I Will Teach You to Be Rich

4 pm – 5 pm
4 pm – 5 pm

Getting to Splash

From US-101: Take the University Avenue exit south; follow University Avenue through Palo Alto. University Avenue changes names to Palm Drive as it crosses El Camino Real and enters the Stanford campus. Continue straight down Palm Drive until you reach the Oval; you can park at the Oval and in lots adjacent to Palm Drive just north of the Oval. Walk south from the Oval up the short flight of stairs of the Main Quad leading into Memorial Courtyard; walk left to the northeast corner of the Main Quad. The Splash! front office is in the lobby of Building 200 at this corner. (Building 200 is circled on the map of the Stanford campus on the opposite side of this sheet).

Via Caltrain: Get off at the Palo Alto Caltrain stop. Take University Avenue across El Camino Real and follow the rest of the instructions given above.

Class Time and Location Details

The Splash Front Office will be in the lobby of Building 200 at the northeast corner of the Main Quad. Most classes will be held in Building 200. Classes held in other locations will meet their teachers in Building 200 and be taken to their class locations as a group.

The first morning classes will begin at 10am on Saturday, January 29st, 2005. If you do not plan on pre-registering, make sure to arrive ~1/2 before the start of your first class in order to register. Make sure to bring your Splash Registration Form including chosen classes, Liability Release form, and Splash program fee of \$20. All forms can be found on our website.

Lunch will *not* be provided. Please bring your own lunch or money to buy lunch from one of the on-campus restaurants. There is a one (1) hour break at noon to allow students to get lunches from these restaurants.

Fee and Payment Details

ESP charges a \$20 Splash program fee that helps us pay for printing, mailing, course materials, janitorial services, and other things necessary to put on our programs. However, *we do not want anyone to be unable to participate in Splash because they cannot by the fee*. If payment of this fee would cause financial hardship, we will gladly reduce or waive your fee entirely. Please indicate your payment preference on the Registration Form.

We accept cash and checks payable to "Educational Studies Program." Please mail checks to us by January 25th, 2005, or bring your payment directly to Splash on January 29th.

In Case of Emergency

The Splash front office in the lobby of Building 200 at the northeast corner of the Main Quad will be staffed by ESP administrators throughout Splash. If anyone needs to find you during Splash they should come to the front office or call ESP administrators Julia Carnevale (858-531-3662), Scott Lanum (240-346-1819), or Lindsay Dahms (707-771-0447).

Please note that you should dial 9-911 in place of 911 from campus phones.

Contacting ESP

Web <http://www.stanford.edu/group/esp>

Email esp@lists.stanford.edu

Post Educational Studies Program
Haas Center for Public Service
562 Salvatierra Walk
Stanford, CA 94305-8620