

HONORS COLLABORATIVE PRESENTATION ABSTRACT

Brenda Benkenstein, Julia Bitterly, Josh Coursey, Eddie Espineli, Taylor Fayle, Emiliano Herrera III, Stephanie Hollomon, Jeanette Kutach, Alicia Macken, Amber Martinez, Daniel Massey, Patrick Nguyen, Juanita Sena, Carolyn Stalzer, Michael Wells. FACULTY SPONSOR: Rev. Anthony E. Giampietro, C.S.B.,

The most fundamental unit of society is the family, the institution whose purpose and structure shape an individual through moral, practical and intellectual education. Over the past few decades, however, society has lost sight of the ideal structure of family and its true purpose. This problem is evidenced by growing divorce rates, single-parent homes and absent fathers, poor interfamilial relationships, increased sexual promiscuity, the escalation of violence, and the retreat of youth into pop culture and gangs. To confront these and other societal ills, we will first examine why these situations are harmful to the individual, family, and society. In addition, we will explore obstacles challenging the contemporary family, including the American concept of individuality, materialism, the rise of women in the workplace, reproductive technology, and the media. The objective of this collaborative and interdisciplinary project is to provide viable solutions for change within the limits of every family's capacity, regardless of racial, religious, or socioeconomic background. We not only embrace these solutions in our own lives, but also encourage each member of society to do the same, so that we may pass on a better inheritance to our children.

Abstracts of Presentations (Alphabetical Listing by First Author)

Adams, Mark, MODERN PLATONISM – A CRITICAL ENGAGEMENT WITH LEO STRAUSS Dr. Sara MacDonald, Philosophy

Leo Strauss provides the modern reader with an original interpretation of the Platonic dialogues, in an attempt to correct the problems of modernity that existentialist writers had been unable to solve. Strauss's Platonic interpretation consists of two primary elements: his method of esoteric interpretation and his detailed textual analysis of the major political works of Plato, through a close application of his esoteric method. The presentation will examine the relation between Strauss and other Platonic interpreters (including the Neoplatonists), the strengths of Strauss's esoteric method, and the weaknesses of the interpretation that comes from it.

Altschuler, Susan, THE FRENCH JEWISH EXPERIENCE, Dr. Rolande Leguillon, French

The French Jewish Experience: Jews have lived in France from Roman times to the present. They were a religious minority and capitalists before their time in a Catholic feudal society. They lived as well as anyone did in the Dark Ages. Later they were confronted by the problems of economy, religion, superstition, xenophobia and racism. Ninety percent of Jews lived in northern France. They came with different cultural experiences. Most came from Eastern Europe, and some came from North Africa and Spain. Throughout changing historical circumstances, they managed to survive and prosper. They flourished and contributed to all levels of society: philosophy, politics, business, arts and science. In 1792, at the time of the revolution, with its ideals of liberty, equality and fraternity, the Jews were granted French citizenship. Today, the 500,000 Jews living in France are successful and manage to survive among other competing religious and ethnic groups.

Anderson, Stephanie, THE PASTORAL TRADITION AND ITS APPLICATION IN THOMAS HARDY'S FAR FROM THE MADDING CROWD, Dr. James Barloon, English

The pastoral style is a particular genre in Western literature that idealizes the rustic lives of shepherds. While the occupation of sheep herding seems a simple or strange topic for a sophisticated literary tradition, it is actually the pastoral that is quite sophisticated. From the times of ancient Greece to 19th century England, the life of a simple shepherd has been described and especially idealized within pastoral literature. Pastoral literature is that which glorifies any or all of the following: the shepherd, the rural countryside, nature and livestock, quaint country customs and even youthful sexuality. It is the pastoral that represents an original escapist tendency within literature. It is my intent to explore the origins of the pastoral, its development throughout the centuries and finally, Hardy's utilization of the pastoral to demonstrate the stark contrast between the modern and traditional worlds. For it is

through his characters that Hardy reveals the limits of the pastoral as defined by modernity - while the charming pastoral setting is carefully developed by Hardy, his characters ultimately cannot embrace its idyllic standards. Thus Hardy shows a 19th century longing for pastoral life yet simultaneously laments its passing, brought on by the advent of industry and secularism. Modernity and industrialism, as displayed by Hardy, strips the fields of sheep and removes the cavorting maidens of the pastoral, replacing them with much more grim expressions of hard-core reality.

Angelone, Kelli; Dao, Tang; Elliot, Summer Gail; Griffin, Blair; Lopez, Derrick; Taylor, Kate, BUFFALO BAYOU: HUMAN SYSTEM-NATURAL SYSTEM INTERACTIONS 2, Dr. Ravi Srinivas, Environmental Studies

Beginning in Katy and finally merging into the ship channel, Houston's landscape is dominated by the Buffalo Bayou. Throughout its history, the bayou has been altered in many ways to suit Houston's development. For example, it has been widened and straightened to create the ship channel and it has been used as a receptacle for industrial residents of the areas bordering the bayou. Water quality has steadily declined over time and today it is practically unrecognizable from its original state. The bayou's numerous ecosystems have suffered as Houston flourished. Once abundant species are now rare or extinct. Currently, the bayou is being rehabilitated with the help of various organizations and groups. Plans include increased regulation of pollution and the creation of green space along the banks. This poster depicts the human effects on the bayou's natural systems over time. It is essential to effectively address the issues the bayou faces today attempting to improve upon the current situation.

Atkerson, Denise, DEEP ECOLOGY AND THE CONTEMPLATIVE TRADITION, Prof. Brooke Deely, MLA

St. John of the Cross spoke of the abiding connection with God he experienced in nature; the mountains, valleys, islands, rivers, and breezes, is God and all together are God and, in that union, are in God – simultaneously immanent, eminent, and infinite. In the contemplative tradition, this way of modeling the world goes beyond the presuppositions inherent in the historical narrative of humanity's dominion of nature. In the 20th century, the tenets of deep ecology reflected this contemplative ecological intuition. Founded in the 1970's, deep ecology seeks to encourage a shift in our anthropocentric worldview to one that encourages a greater depth of questioning of our needs and desires, in order to cultivate a deeper connection with the finite world we inhabit with other beings, both living and non-living. By perceiving the inherent worth of creation, not for the limiting values of resources, recreation, or beauty alone, we can begin to develop an awareness of a sacred interdependence to which we owe our very survival. Ultimately the shared intuition of deep ecology and the contemplative tradition is that the way we live, move, and interact with creation speaks of our values, ethics, and beliefs. I propose that to return to a more unified relationship with the natural world and rediscover a sense of the sacred in everyday lived experience, the intentional "deeper questioning" of deep ecology provides a means of reconnection for modern contemplatives.

Martina Ayad(1), John M. Knight(2), and Susan Pacheco(2) (1)Department of Chemistry & Physics, University of St. Thomas, Houston, TX, (2)Department of Pediatrics, Baylor College of Medicine, Houston, TX, QUANTIFYING AEROSOLIZED ASPERGILLUS FUMIGATUS BY HPLC, Dr. John Palasota, Chemistry

Chronic granulomatous disease is a primary immunodeficiency that results from mutations in any of the four subunits of nicotinamide adenine dinucleotide phosphate (NADPH) oxidase. The ultimate goal of our work is to develop a vaccine against *Aspergillus fumigatus* in a Chronic Granulomatous Disease (CGD) murine model. Work is currently ongoing at Baylor College of Medicine to investigate whether mucosal immunization of X-CGD mice with *Aspergillus fumigatus* crude culture filtrate (CCF) via aerosol will induce a strong *Aspergillus*-specific Th1-type cellular response that will ameliorate or prevent pulmonary disease or will provide an additive effect to antifungal therapy. Initial experiments consisted of intra-nasal treatment of wild-type mice and were directed at defining experimental standards, assay development, and proof of theory. Our contribution is the development of a standard curve to quantify aerosolized *Aspergillus fumigatus* CCF by high-performance liquid chromatography (HPLC). The concentration of CCF in the aerosol samples was used to calculate the efficiency of CCF aerosolization and to determine future treatment times.

Baker, Matthew, THE CREATION OF AN INTERNATIONAL LEGAL SYSTEM AND THE IMPLICATIONS OF THE TRANS-NATIONAL LEGAL ENVIRONMENT, Prof. Rick Young, Political Science

With today's advancements in technology, communication, and travel, the countries of the world are working from a global viewpoint instead of a nationalistic viewpoint. This attempted global federalization, however, brings a flood of dilemmas that can all be characterized as trans-national legal issues. An in-depth study on the creation of the international legal system will emphasize the sectors and topics of international law such as private (corporate) law, human rights, and the use of international law in war. Furthermore, the study will provide detailed accounts on the structure and organization of such trans-national legal organizations as the United Nations, the World Court, and International Criminal Court of Justice. With the increase of international business and the ever-maximizing relations between national entities comes the need for increased numbers of international lawyers and institutions to monitor this global environment. As the trans-national legal field grows, so does scholarship in the field of international law and in particular the concepts over authority and jurisdiction. The end result of this extensive study will identify the jurisdiction and accountability problems with the super-national legal entities and attempt to set forth a theoretical solution to seamlessly complete the globalization of the international legal system.

Barker, Vanessa , PROTECTING THE HOMELAND: THE IMPACT OF HOMELAND SECURITY ON AMERICAN FEDERALISM, Dr. John Taylor , Political Science

The events of September 11, 2001, dramatically raised the stakes for all levels of government in the United States to address the problems of homeland security. While much of the attention has been focused on the federal government's efforts to address these problems, there has been less consideration of the role of state and local governments, which play a critical role in preventing and responding to terrorist attacks. The responsibility for protecting most of the nation involves a myriad of state and local public agencies, special authorities, nonprofit organizations, and private corporations. Coordinating the efforts of these agencies is essential. Yet, in many program areas related to homeland security, there has been a strong push to "federalize" many activities that have historically been local responsibilities or shared between federal and state and local governments, pre-empting and impeding dual sovereignty. Given the size and complexity of the American society, there are no 'one-size-fits-all' approaches to addressing the nation's most serious homeland vulnerabilities. It is hypothesized that federal efforts to coordinate state and local governments homeland security measures strengthen national homeland security, but reduce dual sovereignty. Additionally, it is hypothesized that as the coordination of homeland security efforts evolve, the coordination pattern follows the model of cooperative federalism.

Bench, Leslie, FROM STAND-BY EQUIPMENT TO READY ON DAY ONE: THE EVOLVING AMERICAN VICE PRESIDENCY, Dr. Jon Taylor, Political Science

This paper assesses the modern role of the American Vice Presidency. The first American Vice President, John Adams, called his job "the most insignificant office ever the invention of man contrived or his imagination conceived." Many of his successors and fellow Americans have felt very much the same about the Vice Presidency, including, until very recently, a number of historians and political scientists. Since the mid-to-late Twentieth Century, a revolution has occurred in the institutional and political dynamics of the American Vice Presidency based primarily on political pragmatism and the realities of national security. In fact, the office has grown so much in stature that many leading political figures now aggressively seek the office, assuming its importance as a steppingstone to the Presidency. It is hypothesized that as the United States grew in stature from its Constitutional founding in 1787, that Presidents found it necessary to engage in a pragmatic re-interpretation of the Founder's original intent for the Vice Presidency. It is further hypothesized that this practical re-interpretation has permanently changed the role of the American Vice Presidency: from a quaint, if not archaic, notion of someone as "stand-by equipment" to today's notion of someone "ready on day one" to assume the role as president.

Berger, Amanda; Currie, Karen; Deras, Pedro; Gray, Kenyatta; Shaw, Emily; Trujillo, Carlos; Weinstock, Beth, BUFFALO BAYOU: HUMAN SYSTEM-NATURAL SYSTEM INTERACTIONS 1, Dr. Ravi Srinivas, Environmental Studies

The Buffalo Bayou has affected the people living along its banks and will continue to shape the people of Houston as we continue to shape the bayou. The bayou has been a vital element in the growth of Houston. Alternatively, our perceptions, attitudes, and actions have influenced its growth and degradation. The history of past flooding, various cultures, and key figures and leaders in the bayou's past and present have used and transformed it into what it is and will continue to be. The future of the bayou depends upon the current and past views and beliefs. Ultimately, this will determine its rehabilitation, maintenance, feasible balance of conservation and development planning. The poster will highlight the effects of human systems on the Buffalo Bayou.

Bergman, Tiffany, ROADS TO HIV, Sister Paula Jean Miller, F.S.E., Dr. Linda Pett-Conklin, Catholic Studies/International Studies

Throughout the world transportation plays an integral role in the spread of disease. HIV/AIDS is no exception. In the most densely infected region, Sub-Saharan Africa, roads act as conduits transmitting HIV via truck drivers, migrant and commercial sex workers. Communities lining these roads have a unique role in the fight against HIV/AIDS. In Quadragesimo Anno Pope Pius XI explains the Catholic principle of subsidiarity as the structuring of power within a state according to the appropriate level of governance. Namely, subordinate authorities should govern within their area of influence rather than a higher authority governing from above. The family is the most fundamental unit of authority and governance; thus, it is the primary application of the principle of subsidiarity. It becomes apparent through the Catholic sacramental view of marriage and family and the principle of subsidiarity that there is a need for family and community-based programs against the spread of HIV along these roadsides. This paper seeks to explain the role of transportation in the spread of HIV in Sub-Saharan Africa, what is being done to prevent this spread, and the contribution of community and family-based initiatives against this spread. Looking at current programs aimed at preventing the spread of HIV along roadsides, this paper examines how the Catholic teachings on subsidiarity, abstinence, and the family are reflected in the success of these programs. A case study of Tanzania, its major thoroughfares and truck stop communities, illustrates this phenomenon and provides an example for the potential application of prevention programs.

Bertrand, Aimee, JUDITH SARGEANT MURRAY'S INFLUENCE ON FOUNDING FEDERALISTS, Dr. Joseph McFadden, MLA

Judith Sargeant Murray, an early champion of causes including women's education and equality and American economic independence, caught the ear of many Founding Fathers and Founding Federalists, most notably George Washington. By publishing "The Gleaner" in 1798, she brought the causes, which she advocated throughout her life, into the homes of Americans. By emphasizing a need for the spirit of independence in meticulously kept records and letters, Murray presents a first-hand account of the early stages of American independence and public sentiment of the era. Her works therefore present how early Washington supporters were portrayed in print. They also served to win public support for civil liberties and the new democratic form of government America had begun to experiment with in the late 18th century. Murray's profound influence upon Washington through published literature and private letters were significant in provoking Washington's early support for the formation of a Federal Bank and thus an independent American economic climate.

Beverlin, John , US FOREIGN POLICY DECISION MAKING PROCESS: A MODERN CHALLENGE TO A TRADITIONAL SYSTEM, Dr. Mahdi Noorbaksh, International Studies

The foreign policy decision-making process in the US generally follows two models, and is influenced by several global and domestic factors. One model, known as the rational decision making model, perceives the choices of unitary actors as rational. Conversely, the other model, the bureaucratic politics model, looks at the role of groups involved in decision-making, such as governmental organizations. By using these models, decisions made during international crises can be examined. Two conflicts, the Cuban Missile Crisis and Operation Iraqi Freedom, exhibit the US decision-making process. The Cuban Missile Crisis and Operation Iraqi Freedom are analyzed using the models to explore why decisions were made. Furthermore, the strengths and weaknesses of each decision are highlighted and their effect on the situations will be noted. The analysis begins with the Cuban missile crisis, which occurred in 1962 when the Soviet Union placed nuclear missiles in Cuba and the US responded with a naval blockade of Cuba. The intricate decision-making process that led to the United State's action and the diffusion of the standoff has been extensively documented. The Kennedy administration's role as the decision-making body is also explored. The effect on the final decision of other governmental organizations including the Air Force, Navy and CIA are studied. The focus then shift to 2003 and the US decision to invade Iraq. The decision-making models are used to look at the action of the Bush administration and the influence of the CIA and the Department of Defense on the decision to go to war. The alternatives to the decision made and the reasons why they were not pursued are evaluated in the two conflicts. Ultimately this paper demonstrates whether or not the norms of US foreign policy decision-making as stipulated by the models were broken during these conflicts.

Bitterly, Julia, REVITALIZING FRENCH RURAL CULTURE, Dr. Linda Pett-Conklin, International Studies

The massive rural-to-urban migration that characterized much of 20th Century French history is now subject to a

reverse trend; today more city dwellers are making a permanent move to the French countryside. The repopulation of rural France will have a significant impact on local and national French culture, as well as the regional European and global community. This paper will explore the urban-to-rural migration as an elemental trend that will directly affect social demographics, economic conditions, and the cultural identity of France as specifically related to the indigenous populace and new immigrants to rural communities. The most considerable effects upon local and national French populations are three fold. First, the social dynamic and necessary adjustment to change between incomers and natives is crucial to the survival of the local and national demographic. Second, the potential for economic success in rural areas, which is conventionally confined to an urban locale, has expanded due to substantial technological innovation in mass communication and transportation. Third, growth in rural population will reinforce France's traditional cultural identity, which increases its importance as individual member states of the European Union seek to balance separate nationalistic identities within the broader context of the European community. Conclusively, the repopulation and revitalization of rural France will prove to be a timely, influential trend intrinsically related to French history, as well as the economic and social future of France.

Celis Black, Laura, EMOTIONAL QUOTIENT (EQ) AND ITS CO-RELATION TO HIGH SCHOOL STUDENTS' ACADEMIC ACHIEVEMENT AND INVOLVEMENT IN NON-RISKY BEHAVIORS, Dr. Trish Vandiver, MLA

The research study will try to determine a correlation between "Emotional Intelligence" as measured by the assessment tool MSCEIT-YV (Mayer-Salovey-Caruso Emotional Intelligence Test Youth Version) and individual success, as measured by a survey of academic and social achievement developed for this research. SOSIAL (Survey of Student Involvement in After-school Leagues) will ask participants to self-report GPA and involvement in school-sponsored academic, artistic, athletic, outreach, service, social and spiritual activities. The sample will include freshman and senior students from the catholic community residing in Houston. It will also look at the data of the Hispanic community of the area to see if there are any differences relevant to the study. The research will compare Emotional Intelligence scores as measured on the MSCEIT-YV, to see if there are any gender differences (girls vs. boys) and if the school environment has any impact on girls' EQ scores (co-ed vs. all girls' schools). Finally the study will examine the overall results of freshmen vs. seniors in order to understand if there is any impact of school curricula on Emotional Intelligence Scores.

Bounds, Jesse, THE CAPACITY FOR A SUPRANATIONAL EUROPE, Dr. Jean-Philippe Faletta , Political Science

This is a study on the various centripetal and centrifugal forces that have shaped the European Union into what it is today. Focusing particularly on the legal and institutional frameworks, this study examines the means by which integration has broadened and deepened its policy scope and constituency domain. By expounding upon the factors and variables that enable supranational institutional growth, this study will illuminate the contingencies affecting future European integration.

Briones, Nereyda , A WINDOW TO THE ARAB WORLD: SPAIN'S ATTEMPT TO EMBRACE HISTORICAL TIES WITH THE MAGHREB, Dr. Linda Pett-Conklin, International Studies

Spain's unique and historical relationship with the Arab world is one of love and hate. The 800-year reign of the Arab empire in Spain left deep imprints in Spanish culture. Subsequently, a dictatorship, weak economic policies, and separatist forces made Spain a country of emigration and diminished its international role. The country's transformation in the Twentieth Century, however, is a remarkable phenomenon, as it made a transition to democracy and joined the EU in 1986. Spain's expanding modern economy began to demand cheap labor provided by an increasing number of immigrants, mainly from Spain's southern neighbors, Morocco and Algeria. Simultaneously, Spain's relations with the Arab world soured as the former right-wing government sent troops to assist U.S. efforts in the Iraqi War. At home, these feelings were shown on March 11, 2004, in Madrid's Atocha train station, as Al Qaeda took credit for the largest terrorist attack in European history. This incident brought a realization of the importance of Spanish-Arab relations, but it also brought a rise in already existing racism towards the "Moros" in Spain, feelings dating back to the Reconquista. The new socialist government wants to improve ties with North Africa and is calling for an "alliance of cultures" with Morocco. As Spain tries to integrate its Arab community and longs for a more important role in world politics, it must embrace its history in order for this "alliance" to become a reality.

Bui, Theresa, and Andrew Li Yung Hing, DEVELOPMENT OF A GAS CHROMATOGRAPHIC METHOD FOR ANALYZING TRICHLOROETHYLENE IN WATER, Dr. Joseph Salanitro, Biology

Trichloroethylene (TCE) is widely used as a degreasing solvent in the metalworking, machine and electronic industries. However, TCE is one of the most common ground water contaminants in shallow aquifers in the U.S. due to accidental spills to subsoil from underground storage tanks and wastes containing the solvent. The Chemistry and Biology Departments at UST, through funding from Stratum Engineering, Inc., have developed a rapid and simple gas chromatographic method for analyzing low concentrations of TCE in ground water samples and microbial samples that biodegrade the solvent. We evaluated the Photovac vapor gas chromatograph (PVGC, Models 10S50 and 10Splus) fitted with a photoionization (UV) lamp detector (PID) for samples of TCE in vapors. Advantages of this instrument are that relatively "clean" vapor samples are taken and the PID detector (max. 10.6eV output) is capable of ionizing chlorinated alkenes such as TCE with ionization potentials in the range of 9.2-10.0eV. In addition, the properties of TCE, eg. its relatively low water solubility (~1000mg/L), relatively high Henry's Law Constant (0.010 atm-m³/mol @20C) and vapor pressure (58mmHg) indicate that the PVGC instrument may be suitable for detecting TCE vapors. Standard concentrations of TCE were prepared in water (5.5 - 5555µg/L), equilibrated at 25 or 50C and then headspace vapor samples (50-500µL) analyzed in the PVGC. Preliminary results indicate that the PVGC-PID system can accurately detect aqueous concentrations of TCE in the range of 50 1000µg/L. Preliminary laboratory studies with bacterial cultures and gel-immobilized TCE degraders also indicated that the PVGC could easily estimate residual solvent concentrations in a biodegradation assay

Castillo, Julieta, THE IMPACT OF THE ARGENTINE ECONOMIC CRISIS ON CIVIL SOCIETY, Dr. Mehdi Noorbaksh, International Studies

In the last few decades we have witnessed a debate surrounding the rising centrality of civil society. A greater emphasis has been placed on the subject as more and more the significance of public involvement in policy development is being recognized. Good and stable levels of civil society are crucial for the development of a country's economy as well as of society. So much has this belief gained credibility that even the World Bank has committed to include the developing of civil society in its leading policies. Furthermore, there is a growing consensus that an active civil society is not just an important component to all societies, but it is especially critical to those societies experiencing dramatic political and economical changes as civil society reduces the side-effects produced by these changes and eases some of the pain. Economic problems affect civil society usually by generating a decline of its levels, which in turn further damage the economy and the population. This has been the case in Argentina in some instances, but it can also be seen that at the same time civil society has increased in other ambits of society. This author argues that severe economic dislocations have a direct impact on civil society. In fact, in the case of Argentina it may very well provide substantial costs but also a reconstruction of a civil society more consistent with development. This paper will begin by discussing the concept of civil society and its constituents. It will then assess the impact of social conflict on civil society. Following will be a discussion of three main periods characterized by political and social conflicts in Argentine history: the Peronist movement, the Proceso, and the transitional period to democratic regime. Next, the paper will focus on the Argentine economic crisis. The paper will conclude by evaluating the effects, both positive and negative, of the current financial crisis on Argentine civil society and by proposing different options for how to increase the levels of participation. It has been almost a decade of recession, devaluation, government freezes on savings accounts, political and social conflict, and economic reforms in Argentina. The fallout of the economy has radically altered economic policies and external political relations. However, the major predicament has been that the crisis has not only impacted the economy but it has remarkably affected the country's civil society.

Chhotani, Nida, THE EFFECTS OF STRESS AND THE ROLE OF SIGNALING IN AIPTASIA PALLIDA, Dr. Joanne Romagni and Dr. Rosemary Rosell, Biology

Mutualistic relationships are important to all ecosystems. One economically as well as ecologically important relationship is the facultative symbiosis between corals and algae, *Symbiodinium*. In our lab, we are using a model organism, the sea anemone *Aiptasia pallida*, that contains the same mutualistic relationship as coral to try to understand what causes the breakdown of the symbiosis, or bleaching. We are currently conducting a broad investigation documenting the effects of environmental stress on this symbiosis. We have investigated the role of specific stress enzymes, such as superoxide dismutase (SOD), in order to determine the benefits of symbiosis. We found that high stress conditions, such as salinity or chronic temperature stress, required at least 48 hours to induce new SOD isozymes. From this study, it appears that one isozyme is constitutive, although the amounts of the enzyme increase with stress and time. Other isozymes may then be produced for chronic stress situations. Currently we are in the process of identifying specific proteins involved in symbiont signaling before and during stress events.

Our preliminary data has identified 10 different proteins that seem to be involved in the breakdown of the symbiosis. We are working with pseudo gels and 2D gels in order to isolate, purify, and identify these proteins. We are also trying to determine the sequence of events in the break-up of a mutualistic relationship.

Chiang, Jennifer, Cindy Rodriguez, STATISTICAL ESTIMATION AND INTERPRETATION OF BETA COEFFICIENTS: THE CASE OF ORACLE, Dr. Barry Wilbratte, Finance

The project involves an analysis of the systematic risk of the stock of Oracle Corp. (NASDAQ: ORCL). In our analysis, we calculated the beta coefficient (the measure of systematic risk defined in the field of finance as the volatility of a stock relative to the market, and a fundamental component of the Capital Asset Pricing Model) of Oracle Corp. stock for two 5-year periods. For our project, we used the data for the Standard and Poor's 500 (S&P 500) to represent an index for the stock market. Microsoft Excel was used to collect, organize, and calculate the data. A regression analysis was performed over the period 1996-2000 and again over the period 1999-2003 so that we could apply statistical analysis to the data and obtain estimates of Cisco's beta coefficients for the two periods. Our primary goal was to determine the value of the beta coefficient for Oracle and utilize standard statistical tests of confidence. Our secondary goal was to test whether there is a sharp change in the estimates of beta. If there was a change in beta, can the change be explained? If the changes in beta could not be explained we felt it necessary to question the concept of a stable beta and thus question by implication the soundness of the Capital Asset Pricing Model. Such a finding has importance since the Capital Asset Pricing Model is the accepted paradigm in the field of finance and as such, is widely taught in finance courses throughout the world.

Chladek, Matthew, THE MASKES OF EZRA POUND: IMITATION AND PERSONIFICATION IN HIS EARLY POEMS, Dr. Clinton Brand & Dr. Shannon Forbes, English

Perhaps one of the most influential and enigmatic literary figures of the twentieth century, the obfuscated legend of Ezra Pound is every much as intriguing and dynamic as his contemporaries—W.B. Yeats, Ford Maddox Ford, James Joyce, and T.S. Eliot to name a few. Yet, when evaluating his paradoxically obscure notoriety the same resounding question rises forth from the minds of the erudite and ignorant alike: who really is Ezra Pound anyway? Such a question may never be reconciled with a clear-cut explanation, but his verses suggest more than enough to make an assumption; they delineate the stylistic growth of perhaps the greatest pioneer of modern poetry. With a concentration on the earlier imitational works of Pound (roughly 1908-1920), my thesis will reveal the development of his poetic identity through the stylistic imitation of prominent literary figures (favored most highly by Pound in his youth) ranging from Dante to Swinburne and Robert Browning. Moreover, I will depict his struggle with identity through the medium of his poetic works as it relates to his egoistic impersonation and representation of (sometimes rather obscure) historical and literary figures (such as the fifteenth century Spanish poet/thief named Francoise Villon). Lastly, I will engage the issue of his mad genius and survey the gestalt of his truer nature, which exhibits the tendency to absorb, embody, and personify various masks and their consequently inspired poetic voices. Accordingly, I will provide an assortment of poem explications, which will be used to further illustrate the proposal of my thesis. I will also provide contextual and biographical information from various critical sources in order to fully display the controversies among the leading literary authorities. In such a way my thesis will attempt to answer the question of Ezra Pound's identity by exploring the profundity of his literary exertions.

Collins, Erin, CATALYST FOR TERROR: THE ASSASSINATION OF SERGEI KIROV, Dr. Lee Williames, History

On December 1, 1934, Sergei Kirov, Leningrad Party Chief, was gunned down in the hallway of the Leningrad Party Headquarters by assailant Leonid Nikolaev. Nikolaev had waited in the hallway for the arrival of Kirov, followed behind him, and then as Kirov neared his office, Nikolaev fired a shot into the back of his neck. This is where the agreed-upon story ends. Interviews of people working in the building that night show striking differences. At any rate, Kirov was dead, and Nikolaev was taken into custody. Almost immediately, General Secretary Joseph Stalin, left Moscow, arriving in Leningrad the following dawn. Though he at times disagreed philosophically with Stalin, Kirov was a loyal Bolshevik: he supported both collectivization and the Five Year Plan. Yet there were events that seemed to drive a wedge between the two men, including Kirov's reluctance to leave Leningrad for Moscow. Stalin disliked Leningrad, had disliked it since the mid-1920s when it had been the site of a protest against Stalin's policies led by Grigorii Zinoviev, a man who would ultimately be blamed for Kirov's death; Stalin had reassigned Kirov to Moscow, but Kirov had yet to leave. Immediately upon Kirov's death, thousands people were arrested, including Zinoviev. Many of them were executed; others were sent to forced labor camps. Stalin leveled the accusation that Zinoviev, Leon Trotsky (working from abroad), and their followers

had facilitated the murder. The result was a massive trial in which Zinoviev and his followers were found guilty of plotting the Kirov assassination; Stalin used this outcome to instigate a long and bloody purge. Yet is this possible? Who ordered the murder of Kirov? Was it a conspiracy? Was the NKVD (secret police) involved and to what extent? Did Zinoviev order the murder or was it Stalin? Did Stalin order the murder to secure his control of Russia? Unfortunately, for every question that is answered, there are five that are not. Yet one thing is certain: the assassination cannot be merely viewed as a single tragedy, but it must be viewed in light of the number of lives that were lost in the purges that followed.

Coursey, Josh, A. Holliday, A. Rossi, GENETIC VARIATION IN MYSIDS: A COMPARISON OF ITS 1 rDNA AND MITOCHONDRIAL DNA BETWEEN POPULATIONS OF AMERICAMYSIS BAHIA IN THE TEXAS GULF COAST , Dr. Donald Frohlich & Dr. Ruth Bagnall, Biology

Americamysis bahia is a species of marine mysid shrimp found in estuaries throughout the gulf coast, the Bahamas, and the Atlantic coast of South America. Most of the year, populations of mysids exist in isolation in their respective habitats. However, during the winter months, individuals leave their estuarial habitats for the deeper waters of the Atlantic. It is during this time that we hypothesize these normally isolated populations of mysid individuals will have the opportunity to interbreed and thus exchange genetic material with each other. In order to determine the genetic relationships that exist between populations of mysids, we are investigating (via PCR and gene sequencing) the similarities and differences that exist in the ITS 1 rDNA regions between populations of *A. bahia* indigenous to several estuaries throughout the Texas gulf coast. ITS 1 rDNA is a spacer DNA found in the multi-copy nuclear gene for ribosomal DNA and thus recombines. We are also investigating similarities and differences in the cytochrome oxidase 1 region of mitochondrial DNA, a non-recombining gene. From this information we will extrapolate, or infer, phylogenetic relationships between the studied populations.

Crownover, Jessica , LATTES AND LESUIRE - A CASE STUDY OF URBAN SPRAWL SEATTLE - TACOMA, WA, Dr. Jon Taylor, Political Science

An in-depth case study of urban sprawl, focusing on the Tacoma Narrows Bridge in Tacoma, WA and Gig Harbor, WA. The study will seek to prove that urban sprawl is accelerated by internal improvement projects, thus affecting the inflation of real estate, building of services in a market (hospitals, libraries, and schools), and the expansion of commercial development. This case study involves interviews from residents, workers (on both sides of the bridge), and people commercially vested in the project (business owners on both sides of the bridge). Findings are the quintessential chasm - the haves versus the have-nots in regards to their sentiments of expansion. "Haves" seek more convenience (commercial expansion), as the "Have-Nots" seek the *status quo*.

Cubas, Claudia , THE TRIPS AGREEMENT AND ECONOMIC DEVELOPMENT: MISSING IN ACTION, Dr. Gustavo Wensjoe, International Studies

The negotiation of the TRIPS agreement, during the Uruguay Round, came as a need to achieve balance between corporate and private interest, and was accepted specifically by less developed countries as a trade off for promises of greater economic development. Nevertheless, a recurring concern for developing countries is the cost associated with protecting foreign innovation at the expense of economic development. The expected increase in technology transfer and the link of economic development as a result of implementing the TRIPS agreement is a source of sharp disagreement among scholars. This author argues that the evidence of benefits to less developed countries associated with this link is incomplete. The global protection of intellectual property rights lacks balance and constitutes a net transfer for the interest of important corporate sectors in the developed countries, while largely unresponsive to the developmental needs of less developed countries. This paper explores the concept of intellectual property rights, its evolution, and focuses on the main economic developmental incentive incorporated for LDCs to sign the agreement: technology transfer; with specific emphasis being placed on foreign direct investment and its causal relationship with the TRIPS agreement. It concludes by reevaluating the success of the TRIPS agreement and proposals to increase and enforce such returns.

Cuevas, Mary Jane , and Sherine Kurian UNDERAGE DRINKING IN NIGHTCLUBS, Dr. Carl Scott, Psychology

Social gatherings frequently are flooded with peer pressure, increased availability of alcohol, and loss of inhibition and self-control. When these factors are coupled with a mass of underage individuals, an increase in the illicit

consumption of alcohol may be a problem. The researchers hypothesized that the consumption of alcohol in a nightclub would be more prevalent in females than in males under the age of 21 years, due to females' easier access to club entry and greater likelihood to be treated to alcohol by an older person of the opposite sex. Naturalistic observation methods can provide a rare glimpse into this problem. Researchers naturalistically observed beverage consumption in underage individuals, focusing on alcoholic versus non-alcoholic drinks. The three nightclubs studied used wristbands to identify individuals 21+ and had some form of underage indicator. The prevalence of underage drinking was 41% for the 41 males, and 36% for the 78 females. Our hypothesized sex difference in underage drinking percentage was not supported. However, most of the underage people were females (66%), about the same percentage of underage females and males drank alcoholic beverages (38% overall), and 62% of the underage drinkers were females. Our data supports a concern that underage drinking in clubs may be a greater problem for females.

D'Costa, Curtis, TRANSPORTICA, Dr. Janet Lowery, English

In its description of a thing, 'transparent' tells us nothing about the thing in-itself, nor claims to. This mesmerizing word characterizes the object in terms of what lies beyond it--it successfully takes teleology for granted. Transparency is the ideal condition of all objects of rational thought--to see through the question right into its answer, through the answer right into its question. My creative writing poetry thesis, *Transpoetica*, from which I will read, is a meditation on the consequences of valuing answers over questions, a trend prevalent in contemporary society that has been exacerbated by empiricism, technology, and individualism. Any conclusion, when considered outside of the net of questions that caught it, is meaningless. The first section of my thesis is entitled 'concluding', and, in order to emphasize the concept of extensionality, begins with a question. It explores the obsession with answers our culture exhibits through the eyes of a narrator, the 'knower'. The 'I' modulates into other characters throughout the section, namely, King Midas, Mrs. Midas, a 'specialist', and Julius Caesar. The second section is entitled 'questioning' and begins with an imperative. The purpose of this section is to evoke the ecstatic sense of the notion that the self is a slave to occurrence. Human beings are questions, not answers.

Denton, Tayloe, DEVELOPING PREVENTION AND TREATMENT FOR ALCOHOLISM, Dr. Hans Stockton, International Studies

The global impact of problems caused by alcoholism such as deaths, suicide and depression, crime, and car accidents, indicates a need for international concern. Most nations have implemented policies and programs targeting alcoholism; however, success varies across borders. How can a cross-cultural comparison of alcoholism reveal more effective ways to tackle the disease at the global level? Should one place more emphasis on prevention or treatment? This paper will first examine definitions of alcoholism by various authors who explore the physiological perspective and by alcoholics who describe the reality of living with the disease. The discussion and review of these definitions will be followed by the research and findings of different scholars who study the history of alcoholism, individual experiences, and the definitions of alcoholism. The focus is on case studies in Italy, Japan, Russia, and the United States. The findings should determine whether susceptibility to the disease occurs because of environmental influences, genetic predisposition, or physiological factors. The author expects the definition of alcoholism to apply universally in regards to behavioral, physiological affects produced by drinking but that alcoholism appears to manifest itself differently in individuals according to their nationality because of the way that societal expectations and governmental sanctions influence the willingness of an alcoholic to reveal his or her disease. Discovering more about susceptibility will uncover effective measures by which to approach alcoholism

Deras, Pedro , CHINA'S BALLISTIC MISSILE PROGRAM AND NONPROLIFERATION, Dr. Hans Stockton, International Studies

In an uncertain and volatile global security landscape in the 21st century, the modernization of non-conventional military capabilities and alignment to international nonproliferation regime remains crucially important for the international security theater. This accelerated modernization of significant military capacities has exacerbated regional and global security concerns augmented by reluctant attitudes and behavior towards full adherence to international nonproliferation guidelines. As a result, the international community has highlighted long-range ballistic missile proliferation as a grave security threat to global stability. An appropriate case study is the emerging economic global power of China and the accelerated modernization of its ballistic missile arsenal. China's ballistic missile modernization program and nuclear capabilities could become in the next decade a potential coercive tool in the Asian Pacific region and abroad. Certainly, there are no immediate plausible indicators of a Chinese coercive shift in the security horizon, but an ambivalent attitude regarding this paradox could become a very uncomfortable

potential scenario for the international order. This topic is of paramount importance and consistent with the current international economic and stability impetus. Long established nonproliferation treaties, resolutions, and commitments by nuclear weapons states need to be strengthened in order to best halt missile innovations and its transfers that ultimately can be detrimental to mankind. The proliferation concept and its defense have become grave key concerns in the global security agenda. The Asian Pacific region's security landscape should be deemed as essential and critical for a healthier global development theater. It is imperative for major global actors to become steadfast in their efforts to halt this progressive threat in the 21st century. In light of two different schools of thought of American policy makers, the Reds and Blues, this paper would demonstrate the necessity and importance to compel Beijing's officials to halt its ballistic missile expansion by highlighting the incentives for nonproliferation. The paper will also address China's failures to enforce commitments to international nonproliferation frameworks. The goal in pursuing this topic is to generate a higher awareness level that could ultimately benefit the global community and the completion of this project will perhaps contribute to improve such a sensitive international dilemma.

Dinh, Jennifer B., Connie Le, Caroline Tran, MICROGEOGRAPHY OF THE GRAY-BANDED KINGSNAKE, LAMPROPELTIS ALTERNA (COLUBRIDAE), Dr. E. Larry Nordyke, Biology

The microgeography of the Gray-banded Kingsnake, *Lampropeltis alterna*, was studied using mitochondrial DNA sequences from wild-caught specimens from geographically isolated population groups. *L. alterna* is a medium sized colubrid snake found in the Trans-Pecos/Chihuahuan Desert regions of West Texas and Northern Mexico. It inhabits the dry hillsides, canyons, and mountain slopes of the northern Chihuahuan Desert along the Rio Grande, eastward into the Edwards Plateau, and westward into the mountains of the western Trans-Pecos. The color and patterning of *L. alterna* is extremely variable throughout its range with local population groups separated by geographic barriers and availability of water. Gene flow between isolated population groups is thought to be minimal. Two distinct color morphs of *L. alterna* are observed, one from the easternmost range and the other from the westernmost range. Two explanations have been drawn concerning the color morphs. Tanzer concluded that *L. alterna* is represented by a single polymorphic species, whereas Hilken and Schlepper concluded that there are two distinct species or subspecies.

Duggan, Ana, THE POLITICAL ECONOMY OF PRO-FAMILY POLICY IN LATIN AMERICA, Dr. Linda Pett-Conklin, International Studies

It is in the interest of each country's future economic growth to address issues of inequality while increasing productivity by adopting neoliberal policies while also creating a sustainable safety net to help labor get through the negative economic and social impacts of globalization. The best way to fight poverty and economic stagnation is to invest more of each country's GDP in developing human capital. One way of achieving this goal is by implementing Targeted Human Development Programs (THDPs), which aim to combat the intergenerational transmission of poverty. Human capital is thus augmented through these programs' focus on health, education, and nutrition. Women in particular play a valuable role in building human capital through their adherence to the regulations of these efforts. I begin my examination of Latin America by looking at the history of poverty and inequality. In addition, I outline case studies of the government initiatives of PROGRESA, later called Oportunidades in Mexico and Bolsa Familia in Brazil in order to provide a clear picture of how these programs work to establish lasting improvements in the lives of Latin America's poor communities. I argue that although Targeted Human Development Programs (THDPs) are relatively new, they have both proven to be highly effective methods of poverty reduction and have significant potential for expansion throughout Latin America

Eastham, Katherine, EDUCATING HOMELESS WOMEN, Dr. Janet Lowery, English

Previous research indicates that there have been few studies regarding teaching and educating homeless, chemically dependent, and abused women. Attempts to uncover teaching methods for the instructor have turned up few results. For the last six weeks I have been teaching a creative writing course at The Women's Home, a Houston-area women's center, with no instruction or advice as to how I should teach the course. Having no prior teaching experience, I have resolved to relate to the women on the common, personal, human level that we all share; I would not treat them as though they were different and I would not marginalize them. The purpose of this research, then, is to demonstrate that preconceived notions of instruction and relating to the homeless are unnecessary and ineffective, and how, by distancing the student from the teacher the learning process can be hindered both for the students and for the teacher. Each week I have been composing journal entries that describe the events and experiences of that week's class and include my expectations, assumptions, and methods of teaching. This result will be illustrated

clearly in the journal entries that will act as a window into the classroom, and the weekly writings from the women that continually show improvement. From this, I have found that there is no one technique or method to use for instruction, that each individual demands a specific way of interaction, and, finally, that this interaction stems directly from our own human instinct for relating to others.

Espineli, Eddie, and Hatfield, Landon, CHARACTERIZATION OF *BEMISIA TABACI* BIOTYPE PROTEASE ACTIVITY USING GEL ELECTROPHORESIS INHIBITION ASSAY, Dr. Rosemarie Rosell & Dr. Donald Frohlich, Biology

Bemisia tabaci whiteflies are harmful to a variety of crop species for many reasons, chief among those being that they are vectors of plant diseases. Whiteflies ingest Begomovirus during feeding on infected plants, and transmit the virus when they subsequently feed on uninfected plants. Begomoviruses are single stranded DNA viruses that have only a protein coat with no associated lipids. Our focus is on the role(s) that the whitefly digestive system play(s) in virus transmission. In whole body whitefly extracts, we have identified enzymatic activity with a pH 5.5 optimum that specifically targets protein breakdown. We have demonstrated significant activity of proteases at the protein level through electrophoresis using SDS polyacrylamide gels containing gelatin as a substrate for the enzymatic activity using Cathepsin B, an acidic cysteine protease commonly found in Hemipterans, as a positive control. Inhibition of proteolytic activity using specific classes of protease inhibitors showed that a mixture of proteases was present in whole body extracts and that the predominant activity corresponded to lysosomal proteases in the cysteine protease family. However, other proteases representative of enzymes that do not have an acidic pH optimum appeared to be present in the whole body extracts. Thus, future work will focus on identifying these types and classes of proteases and to specifically identify which of these classes are present in the digestive system.

Espinosa, Claudia, FOLLOWING THE FLUTE LINE, Dr. Ann Fairbanks, Music

As Western music has evolved, its instruments have evolved with it. The flute is an instrument that has been present since mythological times and whose origin is unknown. While we have only general information about ancient flutes, more modern flutes are accessible and we have enough information that we can demonstrate the development of the flute as a musical instrument. We can show how its advancements have allowed players to achieve a greater degree of expressiveness, technicality, and tone control as Western music has advanced. This presentation will consist of a short history of the flute from the Middle Ages to modern times, which will highlight the changes made in the 19th century by Theobald Boehm. The presentation will be shown on a slide show. Flutes from the University of St. Thomas' Bert Roth flute collection will serve as models on display. In order to show the practical application of the improvements made to the flute, there will also be a demonstration of Claude Debussy's *Syrinx*. In this demonstration Dr. Ann Fairbanks will play a portion of the piece on a Baroque flute in order to show the difficulties incurred when interpreting a modern piece on a Baroque instrument. The presenter will then play the piece on a modern flute and ask the observers what some of the differences were. In addition there will also be a comparison of a Baroque piece played on a modern flute and on a Baroque flute (a period instrument) in order to demonstrate the authenticity of a period instrument.

Farr, Courtney, INGESTION OF PLUMBAGIN BY *BEMISIA TABACI* WHITEFLIES, Dr. Rosemarie Rosell & Dr. Joanne Romagni, Biology

Whiteflies pose a great threat to agriculture because they damage plants during feeding and some species serve as vectors for plant viruses. US governmental limits placed on the use of pesticides have caused a need to find effective pesticides through natural resources. We have shown in previous studies that plant secondary metabolites may prove to be effective insecticides against phloem-feeding insects such as the whitefly, *Bemisia tabaci*. This study focuses on plumbagin, a secondary metabolite produced by the Plumbago plant (*Plumbago auriculata*). Previously using contact assays, we determined that plumbagin effectively caused whitefly mortality at an LD50 of 0.88 micromolar. To test how plumbagin (the mechanism of action of plumbagin) is causing whitefly death, we have developed a phloem-delivery assay. We predict that as whiteflies ingest plumbagin, the mortality will increase and thus the dose required to affect whitefly longevity will be greatly diminished (lower LD50).

Fayle, Taylor , THE EPISTEMOLOGY OF HENRI BERGSON, Dr. Ted Rebard, Philosophy

“This book affirms the reality of spirit and the reality of matter, and tries to determine the relation of the one to the other by the study of a definite example, that of memory.” So begins Henri Bergson's classic work on epistemology,

Matter and Memory. As the giant of French intellectual life at the turn of the twentieth century, Bergson held that the classic debate between realism and idealism could no longer be isolated to the armchair of philosophy. Pulling from biology, psychology, physics, mathematics, metaphysics, and epistemology, *Matter and Memory* is a synthesis of scientific disciplines that had been growing more and more disparate. Fusing these approaches, Bergson asserts that past metaphysical dualisms have been built upon the utilitarian function of our senses, which, by nature necessarily distorts reality due to the intellectual “spatialization” of things. Aware of the problem, Bergson attempted to lay hold of “true experience,” to which he offered as his answer the time-image, and through which he believed he was able to place physical and psychical realities within a single continuum. The richness of his idea saw a fierce attack by both German and French phenomenology. However, since Bergson’s time there does seem to be a striking continuity between *Matter and Memory* and new research being done in the philosophy of mind, particularly in the field of cognitive neuroscience. This presentation will briefly summarize Bergson’s epistemology, offer the most challenging arguments against it from phenomenology, and then attempt to reconcile Bergson with certain contemporary theories in philosophy of mind.

Fayle, Taylor , ICONOCLASM IN THE 8TH CENTURY: LEO III, JOHN OF DAMASCUS, AND CONSTANTINE V, Sr. Madeleine Grace, C.V.I., Theology

The iconoclastic controversies that took place in Constantinople between the years 726 and 843 A.D. may perhaps be called the defining moment in the history of the Orthodox Church. The reason for its significance, however, is not merely of an historical nature. The debate that took place over the use of images in the Greek Church represents the culmination of theology as articulated by the Church Fathers. Looking at both the historical and doctrinal elements that formed the early period of iconoclasm, this paper will follow the three main figures involved in the struggle from 717-787 – Emperor Leo III, St. John of Damascus, and Emperor Constantine V. Their motivations and especially their justifications will be given special attention to show the very theological depths reached through the debate, which struck at the very heart of the Greek Church. In following these three characters, the operational divide between Church and State will also be considered. For as the iconoclastic controversy developed, it made a lasting imprint on the form dialectics would be given between the Eastern Church and political authorities. Both institutions would be given a clearly defined realm of authority in the East, whereas in the West, these distinctions never materialized.

Figueroa, Christina, WORKPLACE HUMOR AND ITS RELATION TO THE MOTIVATION OF PUBLIC HIGH SCHOOL TEACHERS, Dr. Jon Taylor, Political Science

Humor is not only used as a way to communicate and entertain, but in the workplace is used most often to relieve stress or, more importantly, to reveal feelings and opinions of the workplace environment. This paper examines the use and type of humor in informal interactions among public high school teachers in the Houston area. The humor used in informal interactions is compared to the public feelings expressed by high school teachers during one-on-one interviews. It is hypothesized that as teachers gain experience and seniority, the level and role of workplace humor positively changes. It is further hypothesized that workplace humor is directly related to personal, social, and cultural environmental factors, such as self-esteem, gender, ethnicity, and work experience.

Fitzgerald, Alexses, FDR, THE IRISH WORLD AND NEUTRALITY, Dr. Joseph McFadden, MLA

My research will focus on *The Irish World* newspaper (1937-1939) as a primary source to uncover Irish-American views of FDR and the neutrality legislation passed by Congress in the 1930s. *The Irish World* newspaper is of particular interest because it provides an assessment of why Irish-Americans believed that the U.S. should be “free of foreign entanglements.” *The Irish World* articles and editorials will be reviewed to ascertain how the paper presented FDR’S opposition to the neutrality laws, which supported the nation’s traditional policy of international isolation. The opinions found in *The Irish World* relative to FDR’s attempts to change the neutrality laws will form the basis for my research.

Fredieu, Brian, Amanda Berger, Blair Griffin, GREEN ARCHITECTURE: LAYING THE FOUNDATION FOR A SUSTAINABLE FUTURE, Dr. William M. Harris, Environmental Science

With increased consumption putting a greater strain on natural resources, energy efficiency is the most effective method of conserving resources and reducing our impact on the natural environment. New techniques such as green architecture combine energy and cost efficiency with design strategies that harmonize with the natural environment.

Green architecture encompasses many techniques and ideas in order to realize the of energy reduction. Building site location, energy efficiency levels, sustainability of construction materials, and water efficiency levels are the most important aspects to satisfying the “green” goals of energy efficiency and minimizing our impact on the natural environment. Building site location should incorporate existing landscape and compliment natural features, creating a building that is as pleasing to the eye as it is to the budget. Energy efficiency embodies ideas and techniques such as building shape and orientation, passive design strategies, sod roofing, and use of natural lighting. Reducing building energy consumption is the ideal and alternative design strategies should be directed toward doing so. Usage of sustainable materials in construction is not only environmentally friendly, but also just smart. These products promote resource conservation and efficiency. Such materials are also cheaper than and equally as durable as typical building materials. Water efficiency should concentrate on reducing the amount of water used and focus on conserving water as much as possible. This reduces consumption and reduces costs. As UST expands, green energy practices can be seen as a viable alternative to traditional construction in new and existing academic buildings and coincides with UST’s academic philosophy.

Fredieu, Brian, EFFECTS OF URBAN RUNOFF AND STORMWATER OUTFALLS ON WATER QUALITY IN BUFFALO BAYOU, HOUSTON, TEXAS, Dr. William M. Harris, Environmental Science

Houston and its residents come in constant conflict with the natural environment. Harris County’s watersheds drain over 1,800 square miles of land surface, moving the water over a relatively low slope into the Gulf of Mexico. The water quality of these systems is dependent upon runoff water quality, atmospheric deposition, sewage treatment effluent quality, and stormwater outfall quality. Stormwater outfalls drain highly urbanized areas north and south of the Buffalo bayou. Those urban areas are made up of residential, commercial, and light industrial zones. Samples were taken at six locations along the Bayou over a six-year period. Four of these samples are direct stormwater outfalls while the other two include the confluence of the White Oak and Buffalo Bayous and a source of surface flow characterized by stormwater and general land drainage from a cemetery. At each sample site a water sample was taken upstream, at the outfall, and downstream. The samples were collected and analyzed for pollutants. For each water sample taken the following tests were conducted: chlorine, conductivity, dissolved oxygen, flow measurement, pH, secchi depth, temperature, total water depth, turbidity, water color, ammonia nitrogen, nitrate nitrogen, orthophosphate phosphorous, sulfate. Urban runoff, stormwater outfalls, and the confluence of the White Oak Bayou (at the easternmost end of this study) directly affect water quality in this section of the Bayou. The study area is characterized by pollution, poor water quality, erosion of the banks, and non-native plant species. This study is aimed at analyzing the effect drainage/stormwater outfalls have on the water quality in the Bayou.

Frye, Richard, Karina Hernandez, WHAT IS THE RELATIONSHIP BETWEEN JOB SATISFACTION, HONESTY IN THE WORKPLACE, AND RELIGIOSITY?, Dr. Joseph Pentony, Psychology

Previous research that has examined the relationship between job satisfaction, honesty in the workplace, and religiosity (Chusmir & Koberg, 1988; Vecchio, 1980; Grabhorn, 1980; Parasuraman, Zammuto, & Outcalt, 1984; Ray, 1982; York, 1981; Hollinger & Clark, 1983; Madlin, 1985; Stead, Worrell, & Stead, 1990; Trevino, 1986) has failed to establish a clear relationship between these variables. Therefore, the present study seeks to determine the relationship between job satisfaction, honesty in the workplace, and religiosity. Results from a survey of 36 participants enrolled in an introductory psychology course at a master level institution indicate that high levels of religiosity are correlated with overall job satisfaction ($r=.330$), satisfaction with work on present job ($r=.304$), satisfaction with supervision at work ($r=.334$), satisfaction with people at work ($r=.521$); and having unfavorable personal beliefs towards dishonest people and behaviors ($r=.441$), greater frequency of rationalizations ($r=.420$), loathing toward deceiving ($r=.357$), and cheating ($r=.494$). Further, high levels of honesty in the workplace, namely those not in favor of cheating, stealing, and deceiving, reported higher satisfaction with present pay ($r=.440, .441$), supervision ($r=.342, .362, .464$), opportunities for promotion ($r=.345, .381$), and people at work ($r=.385$). The data produced in this study established a positive relationship between job satisfaction, honesty in the workplace, and religiosity.

Gallagher, Sean, THE WAR IN IRAQ: PROBLEMS OF JUST WAR THEORY, Dr. Terry Hall, Philosophy

After September 11, 2001, the United States responded with its War on Terror. One of its chief targets was Iraq, which the government said harbored terrorism, and particularly Al-Qaeda, the terrorist organization that claims responsibility for the attacks. The War in Iraq and the War on Terror have brought to light interesting problems for Just War theorists. In my research I have analyzed both traditional Just War founders such as St. Thomas and St. Augustine, as well as current theorists such as James Turner Johnson, Michael Walzer, Michael Novak, George

Weigal, and Fr. Richard John Neuhaus. In doing so I have sought to apply their work to: (1) the principle of legitimate authority as it relates to the international community, particularly the United Nations; (2) certain issues of jus post bellum (justice after the war), most notably treatment of prisoners and nation building; (3) terrorism and the distinction between combatants and noncombatants; and (4) the proposal of a principle of continual review, which is to say an obligation, based on just war theory under which the reasons of Just Cause are maintained jus bellum (justice during the war).

Gallaway, Lisa, PROVISIONAL SENTENCING FOR JUVENILES WHO COMMIT CAPITAL CRIMES, Prof. Rick Young, Political Science

Provisional sentencing offers an alternative to traditional sentencing guidelines of juvenile offenders who commit capital crimes. This sentencing alternative would be available for juveniles that are tried as adults and initially eligible for sentences equal to an adult that had committed the same crime. The initial sentence would include a provision for review after a pre-determined time period probably 3-5 years. If the sentence were the death penalty, it would include a provision for life in prison upon review. If the sentence is life in prison without parole - this may be reduced upon further consideration. This review would be based on a comparison of the maturity level of the brain at the time of sentencing compared to the maturity level at the time of review. There are several ways to measure the maturity level of the brain. These include brain scans, psychological testing and personal assessment. The brain matures at different levels for different individuals. The level of additional maturation following sentencing can represent a lack of cognitive development at the time the crime was committed. This information can then be utilized to determine if the juvenile should be eligible for a maximum sentence or if a lesser sentence and perhaps rehabilitation is more appropriate.

Garcia, Angelic, Karla Solis, Akanksha Singh and Deanna Alcalá, THE EFFECTS OF BIRTH ORDER, NUMBER OF SIBLINGS, GENDER, AND AGE ON DEPENDENT VARIABLES, Dr. Joseph Pentony, Psychology

The main hypothesis of this study was to examine the relationships between birth order and number of siblings, age, gender, self-esteem, personality traits, and personal needs. There were 49 participants, 37 females and 12 males, who completed four instruments in the study: (a) a birth order questionnaire consisted of questions about the participants' age, sex, number of siblings, and their birth order; (b) the Rosenberg Self-Esteem Scale; (c) the Big Five Locator Questionnaire measured personality characteristics (Adjustment, Sociability, Openness, Agreeableness, and Conscientiousness); and (d) the Needs Test measured personal needs (Achievement, Power, and Affiliation). :: Participants with one sibling reported being more open ($M=54.08$) than those with multiple siblings or an only child ($M=46.5$, $p<.05$). Participants with four siblings reported being more conscientious ($M=57.87$) than participants with any other number of siblings ($M=49.3$, $p=.10$). Only children reported the highest achievement motives ($M=16.14$) when compared to those who had siblings ($M=15.4$, $p<.10$). Only children had the least need for power ($M=9.71$) when compared to participants with siblings ($M=12.3$, $p<.10$). :: Females reported higher levels of adjustment ($M=52.45$) compared to males ($M=42.66$, $p<.01$). Females reported a higher need for achievement ($M=15.48$) than males ($M=10.89$, $p<.10$). Males had a higher need for power ($M=13.08$) compared to females ($M=13.75$, $p<.10$). Males reported being more sociable ($M=55.91$) than females ($M=49.62$, $p=.05$), and more open ($M=54.25$) than females ($M=47.16$, $p<.05$). Younger participants reported a higher need for affiliation ($r= -.33$, $p<.05$), and older participants were more conscientious ($r= .31$, $p<.05$).

Gautreau, Jamie, THE RELATIONSHIP BETWEEN THE CHEMICAL AND SACRAMENTAL NATURES OF BREAD, Sr. Paula Jean Miller & Dr. John Palasota, Catholic Studies/Chemistry

Bread is a life sustaining substance, described culturally as the "staff of life." In the process of bread making, fermentation of the yeast causes carbon dioxide to be released, allowing the bread to expand and rise. However, canon law (#924) of the Catholic Church prohibits bread that contains yeast or leaven to be used in the liturgy, thus eliminating the process of fermenting and rising. Yeast is prohibited in the Catholic liturgy as in the Jewish Passover because of its symbolic reference to the hasty departure (i.e., no time for the natural process of bread rising) from Egypt for the Promised Land, which marked the origin of the new people of God. Just as the first unleavened bread marked the origin of the first people of God, so this new unleavened bread symbolizes the origin of the new people of God, the Body of Christ. The chemical process of bread making produces physical nourishment; bread transformed into the flesh of Christ satisfies our spiritual hunger with Divine food. When we consume consecrated bread we are not just consuming baked dough, but the body of Christ. In this project I will explore the physical, symbolic, and transcendent elements of bread, by explaining the chemical process necessary for the integrity of the

matter of the sacrament (flour of wheat, the absence of yeast, and water). I delve into the symbolic role of wheat and the process of bread making to reveal the difference between regular and sacramental bread. This difference will help manifest why Christ chose bread, a product of nature but transformed by human hands, as a symbol of his transformation of human persons into his own Body by eating this bread, now his Body.

Gómez, Gustavo , A FANTASY THEME ANALYSIS OF CHEVRON'S "PEOPLE DO", Dr. Robin Williamson, Communications

Chevron's "People Do" campaign seeks to secure the public's good will by constructing an environmentally conscious message disseminated through magazine and television advertisements. The values embedded in the messages reflect a dramatic analytical approach to persuasive messages—fantasy theme analysis (FTA) or symbolic convergence theory (SCT) developed by Ernest Bormann. An application of the theory to selected corporate communiqués from Chevron, such as advertising and newsletters, will isolate the fantasy theme. The fantasy theme creates a symbolic reality that Chevron is an environmentally conscious energy company.

Gómez, Gustavo, FILTERED COLD: THE HISPANIC CULTURE IN ADVERTISING, Dr. Debra Andrist, Spanish

The Hispanic culture is utilized, filtered, and manipulated by advertising, which helps to integrate the minority group into the society. The nexus between advertising and culture is brought into focus by discussing the two terms, observing the functions of advertising in society, and by using Milton Rokeach's hierarchy of beliefs theory. A textual analysis that examines cultural codes in advertisements will be applied to advertisements featuring Hispanic people, and other Hispanic-oriented magazines will be discussed. The phenomenon of "mainstreaming" supports the thesis of assimilation of Hispanic culture into the main cultural view since advertising is so ubiquitous. In conclusion, people are the common factor between communication and culture, therefore both concepts are used to define, construct, and maintain a common reality.

Griffin, Blair, JUMBUN: AN ABORIGINAL COMMUNITY'S OBSTACLES TO DEVELOPMENT. Dr. Linda Pett-Conklin

One of Australia's greatest pulls to international visitors is Aboriginal cultural tourism. Indigenous populations exercise an obvious advantage in such operations, as they represent the only parties able to supply a truly genuine experience to tourists. In response to the recent upheaval in eco and cultural tourism in Queensland's Wet Tropics World Heritage Area, the region's Aboriginal corporations are encouraging new tourist businesses as a viable path to community development. This paper will examine Jumbun, an Aboriginal community's prospective tourism venture, with a focus on the unique issues that arise from establishing a completely indigenous owned and operated business. Many of the obstacles facing Jumbun involve confronting deep-seated social issues, such as growing apathy to development. For many years, the Australian government sought to correct its wrongs against the indigenous population through welfare programs and rights recognition, rather than empowerment. Because of this, apathy and a lack of interest have emerged as a social norm in Aboriginal populations. Cultural tourism projects seek to counteract this by empowering the people through business. There is massive economic development potential for Jumbun in this area, but it must first overcome these hurdles.

Guevara, Mauricio, AMERICA'S CONTRADICTION: POLITICAL PARTICIPATION IS DOWN, YET POLITICAL POLARIZATION IS UP: A PARADOX OR EMERGING POLITICAL REALITY? Dr. Jean-Philippe Faletta, Political Science

An apparent trend in the American electorate is that the voting public is becoming detached from politics. That is, political participation is on the decline. There is an argument that the lack of political participation in the twentieth century in comparison to the nineteenth century poses a threat to the vitality of American democracy (Crenson and Ginsberg, 2001). Some also accept that in the last twenty years there has been an unprecedented increase in partisan polarization among political elites (Fleisher and Bond, 2001). Furthermore the mass citizenry has become increasingly polarized (Fleisher and Bond, 2001). It would appear that these two trends run contradiction to one another. How can the mass citizenry be so polarized but yet not participate in politics? My assertion is that the mass citizenry participates in politics, but in unconventional forms. Although I agree with the assertion that the lack of voting is a sign of a diminished role that citizens play in American politics (Crenson and Ginsberg, 2001), I do not agree with their assertion that our republic is less vital. I propose that unconventional forms of political participation, e.g., opinion polling, television, the Internet, and talk radio enhance American democracy. Americans will continue to vote, attend protests, participate in boycotts, and write to their Congressman but not to the same degree as in the

past. This research will demonstrate that the inherent political paradox can be explained with evidence of a new emerging political reality. American political participation is evolving and not necessarily declining.

Gutheinz, James, CATHOLICS IN AMERICAN POLITICS, Dr. Jean-Philippe Faletta, Political Science

Catholics have played an integral role in American political history, as the influx of Catholic immigrants during the early parts of the twentieth century ultimately shaped American politics, as it is known today. Catholics, like many minority groups, had to struggle against a society dominated by white Anglo-Saxon, Protestants (WASPs). Catholic communitarian spirit and tenacity allowed them to form tight-knit communities, which slowly gained political influence. The Democratic Party through clever tactics gained a monopoly on the Catholic vote. Democratic Catholics were essential in passing antitrust regulations and in the formation many labor unions that have lasted to this very day. Catholics were rewarded for their hard work in the Democratic Party in 1928, when the first Catholic Presidential Nominee was selected. Although Al Smith's bid for the highest office in the land failed, the mere selection signified how far Catholics had come in America. In the 1950s, Catholics would lead the march against communism and rallied behind political figures like Senator McCarthy and President Eisenhower. In 1960, John F. Kennedy became the clear symbol that Catholics had made it in American society. However, an assassin's bullet took away Kennedy's Camelot, and new regulations, protests, and war changed the way Catholics approached politics. The end of the 1960s brought about new issues of concern for the Catholic voter, such as abortion, family values and other various social issues. Catholics, since the start of the 1970s, have been migrating to the Republican Party, but several intriguing issues have promised that the Catholic vote in the future is anything but certain.

Hamoudah, Kathryn, A COMPARATIVE ANALYSIS OF GENDER AND POLITICAL POWER IN THE UNITED STATES, GREAT BRITAIN AND AUSTRALIA, Dr. Jean-Philippe Faletta, Political Science

In a country that prides itself on having a representative government for the people and by the people, there seems to be a gender disparity with respect to the individuals who serve in the United States Congress. One might pose the question: why is that in the U.S. there is not a more equal representation of women in higher elected offices? Women have been at the forefront of many societal changes, yet they still lack adequate representation. Why is it that women have not gained momentum to move into the upper echelons of power? Is the U.S. any different than its Western counterparts, such as Great Britain and Australia? Do these governments provide an environment that is more conducive for women to rise successfully to higher positions or is this problem cross-cultural? The intent of this study is to seek the answers to these questions by conducting a comparative analysis or case study of the effectiveness/perception of women in higher elected official positions in the United States, Great Britain, and Australia. In order to come to some sort of consensus about the issues raised, this study presents an overall review of the history of women in high government positions in the three countries, allowing for specific case studies of women in the three polities.

Hayball, Sean , THE CONSTRUCTION OF A NEW DEMOCRATIC IRAQ, Dr. Mehdi Noorbaksh, International Studies

The reconstruction effort in Iraq has been plagued by an insurgency that threatens efforts toward democratic consolidation. Poor security, a weak economy, and an unstable political scene have all left the question of a democratic future for Iraq highly uncertain. This presentation will argue that democracy is possible in Iraq provided it experiences rapid capacity building in the country's justice system and military, produces strong pacting among sects, and witnesses a period of solid economic growth.

Hernandez, Yolanda, GOING PRO FAR FROM HOME: A CLOSER LOOK AT MAJOR LEAGUE BASEBALL IN LATIN AMERICA, Dr. Linda Pett-Conklin, International Studies

In comparison with other transnational corporations conducting business in Latin America, Major League Baseball is largely involved in the labor market of only a few countries including Cuba, the Dominican Republic, and Venezuela. Its impact on the economies of these countries and the involvement of politics, however, is significant. As a major corporation doing business abroad, Major League Baseball, like all other transnational corporations, should be monitored to ensure that it is not violating any labor practices and that it is not unlawfully involved in the recruitment of underage ball players in Latin American countries. The game once considered American pastime has gone global, and its rippling effects are being felt worldwide. This paper focuses on Major League Baseball's efforts to streamline recruitment processes to ensure fair labor practices. It also serves to highlight the problems faced by

individual baseball players from Latin American countries as they seek to enter the profession in the United States. While critics argue that there should be effective regulations in place so as not to create avenues of corruption in negotiations and in recruitment abroad, Major League Baseball stands by its decisions and practices. This situation supports the conclusion that Major League Baseball has a long road ahead if it wishes to meet the growing trend of equality in a global market.

Herrera, III, Emiliano MEDIATING BODY: THE GROWING MESTIZAJE AND HEALTHCARE ADVOCACY, Sr. Paula Jean Miller, F.S.E., Catholic Studies

The dramatic increase of persons of Mexican decent in the southwestern U.S. has strained the American healthcare system and is a threat to the health of the mestizaje. How can these disparities of health care be resolved? How can a better interaction between the American healthcare system and the mestizaje be established? I propose that a Catholic mestizo advocate healthcare model will sufficiently address the aforementioned social ills and will transform, transcend and confront the inequalities of care facing the mestizaje. Specific characteristics have emerged from the unique historical, socio-economic conditions of the population: a rejected and marginalized identity; a search for belonging; a poor public image; a deeply religious nature and preservation of religious traditions; a conservation of language; a movement toward a better life; an openness to outsiders; and a sense of solidarity and family. According to Virgilio Elizondo, these characteristics are closely related to the historical example of Jesus on earth. By juxtaposing the characteristics of the mestizaje with the Christ model of priest, prophet and king, a Catholic mestizo advocate model emerges. This model addresses the special needs of this underrepresented group that must be met by persons who participate in the mission of Jesus as priest, prophet and king. Just as Jesus restores humanity's fallen condition, so too can the advocate help restore the health of the mestizaje.

Holliday, Michael, FORENSIC USES OF FOURIER TRANSFORM INFRARED MICROSCOPY, Dr. Thomas B. Malloy, Jr., Chemistry

Infrared (IR) spectroscopy is used to measure molecular vibrations and is a well-established technique. One of the applications of infrared spectroscopy is to use it as a molecular "fingerprint." Different chemical species give rise to different infrared spectra and it is a powerful tool for characterizing the type and often the specific identity of chemical compounds by comparison to databases of known spectra. The Fourier transform infrared (FTIR) microspectrometer recently donated by Shell to the Chemistry department is an extremely useful tool for selectively characterizing and analyzing very small samples. It combines an optical microscope with an FTIR spectrometer. Samples such as hairs, threads, and fibers show the unique niche the instrument holds in crime scene investigation. To demonstrate the use of the instrument, a variety of thread-like substances is visually characterized and analyzed by infrared spectroscopy.

Holliday, Michael, A NEW DERIVATIZING AGENT FOR GC AND GC/MS, Dr. Thomas B. Malloy, Jr., Chemistry

We are in the early stages of testing new O-(fluoroalkyl) hydroxylamine hydrochlorides as derivatizing agents for aldehyde and ketone compounds. These are envisioned as filling a niche application for more complex, less volatile carbonyl compounds or those that contain multiple carbonyls. The incorporation of fluorine brings great sensitivity for electron capture detection and has beneficial effects on volatility. Being investigated are several model compounds that have desired characteristics, such as large size. The derivatives are compared to those formed from O-methyl hydroxylamine hydrochloride and O-(2,3,4,5,6-pentafluorobenzyl) hydroxylamine hydrochloride, as detected by GC/MS.

Hollomon, Stephanie, HOMOSEXUAL MARRIAGE: IS IT IN THE STATES' BEST INTERESTS AND WHO SHOULD DECIDE? Dr. Jon Taylor, Political Science

Homosexuality has been in existence for almost as long as the institution of marriage; and now some advocates are attempting to merge the two concepts into one legal, accepted union which alongside traditional marriage, will attempt to perpetuate, preserve, and protect the interests of the civil state. The issue has escalated into a nationwide debate, and no entity remains impervious to its implications. In fact, the subject considered comprehensively may become one of this decade's most important domestic policy issues in the United States. This paper will assess the various legal, moral, and political arguments on the issue of homosexual marriage. It is hypothesized that the Supreme Court's interpretation of federalism will eventually lead to a mixture of state-sponsored civil unions, quasi-

marriages and the outlawing of homosexual marriage among the states. This dissension could then possibly lend itself to a political rather than legal solution—The Federal Marriage Amendment. The research has been methodically arranged into three sections that will sequentially build upon each other. In the first section, marriage is defined according to our contemporary culture and political society. Secondly, the differing policies among the states and the impact these unique policies have on the interpretation of the Constitution. Finally in the third section the recently proposed but failed Federal Marriage Amendment is illuminated and elucidated to reveal the potential effects it bears upon the reserved powers of the state.

Hurst, Emily, THE UNITED STATES SANITARY COMMISSION AND FREDERICK LAW OLMSTED; CIVIL, Dr. Joseph McFadden, History

Commissioned with the hesitant approval of President Abraham Lincoln the United States Sanitary Commission was organized to bring medical aid and support to the soldiers of the Union. Under the guidance of Frederick Law Olmsted the Sanitary Commission changed the face of war efforts and opened the door to civilian support. With the help of nurses, doctors and volunteers the Sanitary Commission greatly reduced the casualty rate suffered by Union forces and brought the wounded into rehabilitation homes. As an organization of volunteers funded through the support of philanthropists from across the world, the United States Sanitary Commission became the foundation for America's Red Cross system. This paper will also focus on the leadership of Frederick Law Olmsted, a man more noted for his landscape architecture that included famous designs such as Central Park, than for his work with the Sanitary Commission.

Ibarra, Carlo, THE JUVENILE DEATH PENALTY, Prof. Nicole Casarez, Communications

From my research done earlier this year, I had predicted that the U.S. Supreme Court in *Roper v. Simmons* would strike down the juvenile death penalty as a violation of the Eighth Amendment's prohibition on cruel and unusual punishment. After completing my paper but before I was scheduled to give the presentation the Supreme Court decided that it is unconstitutional to apply the death penalty to offenders who were younger than 18 at the time they committed an offense. However, I did not predict that Justice Sandra O'Connor would vote to uphold the juvenile death penalty, based on her statements in other decisions. I concluded that the Supreme Court would strike down the juvenile death penalty on 3 factors: (1) evolving standards of decency as shown by the developing national consensus against executing juvenile offenders; (2) new psychological evidence that shows that the human brain is still developing in those who are under 18; and (3) the views of national and international groups.

Jacobs, Kelly, THE TRUE AMERICAN POLITICAL PROBLEM: AS SEEN THROUGH THE LENS OF ANCIENT PHILOSOPHY, Dr. Jon R. Taylor, Political Science

This paper examines the problems faced by the contemporary American political system as seen through the lens of ancient philosophy, namely through *The Republic* written by Plato. The notion of the threefold composition of humanity, presented by Plato through the voice of Socrates in *The Republic*, is compared to similar observations in Western political philosophy by Aristotle, St. Thomas Aquinas, Jean-Jacques Rousseau, Thomas Hobbes, St. Thomas More, and John Rawls. Socrates' notion of the threefold composition of humanity is then applied to aspects of the American political system, particularly her institutions: the Presidency, the Supreme Court, the Congress, as well as the Federal bureaucracy. It is hypothesized that the manner in which capitalism is employed is the cause of contemporary American political problems, not capitalism itself; the American political system is appetite-driven, not driven by reason; and control of the American political system is shifting from her elected officials to corporate entities.

Joy, Julie, Tam Duong THE NUCLEOTIDE SEQUENCE OF THE MITOCHONDRIAL CONTROL REGION OF THE COLUBRID SNAKE GENUS *LAMPROPELTIS*, Dr. E. Larry Nordyke, Biology

From the early 1980s the complete nucleotide sequence of the mitochondrial genome has been determined for a large number of vertebrates. All have a control region that contains the heavy-strand origin of replication and the promoters for heavy and light strand transcription. Mitochondrial genomes appear to be conserved with respect to gene content, with no repetition or deletion of the genes or the control region detected. However, in one species of colubrid snake, duplicate control regions with identical nucleotide sequences were observed. To verify this finding and to determine whether the control region can be used in population studies, we determined the nucleotide sequence of the mitochondrial control region of several Kingsnake species. Kingsnake species studied were two

subspecies *Lampropeltis getula holbrooki* and *Lampropeltis getula splendida*, an intergrade of *holbrooki* and *splendida*, and *Lampropeltis alterna*, which is sympatric over part of their range in Texas with *L. g. splendida*.

Karako, Susan, ALBERTO GINASTERA: AN INCREDIBLE MUSICIAN AND THE INFLUENCE THAT LITERATURE AND LITERARY MOVEMENTS HAD ON HIS MUSIC, Dr. Debra Andrist, Spanish

Music has often been called the language of the soul. For Alberto Ginastera, an ingenious composer from twentieth century Argentina, music stood for more than just the emotions of the soul. Influenced by literature, especially Gauchesca literature, Ginastera's music undertook the difficult task of expressing the history of the Argentinean people, their daily lives, their culture, and the political struggles as expressed in Argentinean literature. Thus inspired, Ginastera created music both historically nostalgic and original, familiar yet strange, and personal yet universal. I am going to discuss the background of Ginastera's life, the society he was born into, and the music he composed. I am also going to discuss the literary currents of the day, especially the Gauchismo movement and its historical origins. Finally, I will show the influences of Argentinean literature on Ginastera's music and the inseparability of the two.

Kasmai, Nikou (Nikki), FROM CONCERN TO ACTION: THE EVOLUTION OF AN INTERNATIONAL ENVIRONMENTAL REGIME, Dr. Gustavo Wensjoe, International Studies

The question of creating international environmental regulations and a code of behavior for countries to adhere to has been addressed regularly over the past few decades. The first major attempt at discussion, which was the United Nations Conference on the Human Environment, took place in Stockholm in 1972. Since then, several other discussions of great importance have taken place, including the United Nations Conference on Environment and Development which led to "Agenda 21: Programme of Action for Sustainable Development" in Rio de Janeiro in 1992. However, although all nations have environmental concerns, not all nations have the same policy priorities with regards to regulatory measures. Therefore, in spite of the fact that there are international environmental concerns, there is no hurry among some nations to create an international environmental regime that will enforce regulations that will in turn impact related issue areas such as trade. This paper will begin by examining the evolutionary process from the initial collaboration to the areas of concern and the original frameworks that were established. The second category will inspect the current areas of concern and the major agreements that have been reached to date. The effectiveness of the existing agreements will also be examined to determine the degree of compliance at a national level. This will lead to the category of the relevance of such agreements, the accomplishments that have been achieved, and the different positions among the participating countries. Finally, the paper will conclude with a case study of Agenda 21 by analyzing the document to establish its merit. This author maintains that despite the merits of Agenda 21, the likelihood of meaningful implementations remains an elusive task for the foreseeable future, partly because of the reluctance of important actors to participate. There are domestic forces within these countries that have concerns about the costs and benefits of implementing environmental protection measures. However, the cost of inaction will be higher than the costs needed to implement Agenda 21 because the issue will become more visible and an array of forces that are concerned will take action and push for implementation. If the countries take action now, they will have the opportunity to negotiate and employ Agenda 21 as they see fit. Throughout the past few decades, there has been an increased awareness concerning environmental issues. Nations wish to address this problem, but have different agendas and major concerns of the economic impact on their interests. The issue has currently become more publicized and there is a greater push for immediate and effective action. It is likely that more efforts will be made to engage nations in international agreements ensuring compliance to regulations set by a burgeoning international environmental regime.

Kim, Nada, REPARATIONS: THE CASE OF THE SUDETEN GERMANS, Dr. Hans Stockton, International Studies

The goal of my paper is to examine how world war crime cases are handled and who is eligible for compensation. This topic is important in present day, since there are many war crime victims from all over the world. This paper will examine the on-going disputes between the Sudeten Germans and the Czech government over the reclamation of lost lands of Sudeten Germans after WWII. There were three million ethnic Germans living in western part of former Czechoslovakia. They were accused of collaborating with Nazis during and after WWII. After the war in 1945, Czech president, Eduard Benes, drafted two decrees. The decrees were to confiscate their land properties and denationalize their Czech citizenship. Ethnic Germans were removed from Czechoslovakia in 1945. This paper will examine other world cases where people are suing governments for compensations. By examining world cases, this paper will create a model for the Sudeten case. First, the former Korean comfort women are suing the Japanese

government for compensation for forcing them into sexual slavery for their military troops from 1931-1945. So far, they have been unsuccessful in suing the Japanese government. Second, Japanese Americans received compensation from the United States government in 1988 under the Civil Liberties Act, signed by President Ronald Reagan, because they were sent to internment camps from 1942-1945. They were not trusted by the U.S. government after the attack of Pearl Harbor in 1941. By examining different world cases, this paper will apply a model for the Sudeten case. In my conclusion, this paper will recommend a judgment for Sudeten Germans.

Knight, John, Martina Ayad, Vernon Knight, Brian E. Gilbert, and Susan E. Pacheco, AEROSOLIZED VACCINE FOR PULMONARY ASPERGILLOSIS COMPLICATING CHRONIC GRANULOMATOUS DISEASE (CGD), Dr. Donald Frohlich & Dr. John Palasota, Biology

Chronic granulomatous disease (CGD), caused by mutations of the nicotinamide adenine dinucleotide phosphate oxidase, results in deficient innate immunity and inability controlling infections by pathogens like *Aspergillus* species. *Aspergillus*-specific T-cell responses are ineffective in CGD. The study aims to induce efficient *Aspergillus*-specific T-cell responses by aerosolized immunization. A standard curve was developed (HPLC) utilizing *Aspergillus* crude culture filtrate (A-CCF), (Greer Laboratories). A-CCF was nebulized, samples were collected and quantified. A-CCF nebulization was confirmed by analysis in a 10%-SDS-PAGE. C57-B1 female mice were nasally immunized weekly (x3) with A-CCF and adjuvant, or adjuvant alone. At sacrifice, serum and cells (lungs, spleen) were collected. The standard curve range is 1–1000ng protein. SDS-PAGE gel confirmed A-CCF protein transfer to aerosol. Preliminary in vitro analysis of lung and spleen-derived cells demonstrated A-CCF-specific proliferative responses. The current studies demonstrate the creation and quantification of an aerosolized A-CCF vaccine and immunogenicity of A-CCF after nasal delivery. Further studies will measure humoral responses and optimize a strategy for aerosol immunization.

Konecny, Christine, Yesenia Rojas, Heather S. Costa, & Paul De Barro, PHYLOGENETIC ANALYSIS OF BACTERIAL PRIMARY ENDOSYMBIONTS FOUND IN WHITEFLY SPECIES FROM VARIOUS GLOBAL LOCATIONS, Dr. Rosemarie Rosell & Dr. Donald Frohlich, Biology

Bacterial endosymbionts are known residents of many insect species. It is believed that these symbiotic relationships contribute to the nutritional fitness of the insect and may play a role in speciation. Primary prokaryotic endosymbionts of whiteflies are members of the Gammaproteobacteria and are housed in specialized insect cells called bacteriocytes. We have examined individuals from over 30 different species of whiteflies primarily from North America, Indonesia, and Australia using PCR amplification and direct sequencing of the products produced from primary symbiont 16S ribosomal DNA (rDNA) genes. Many species yielded a mixture of PCR products that were not suitable for direct sequencing. These samples have been cloned and sequenced to generate usable sequence information. The forward and reverse sequences from each sample were edited and used to construct a multiple alignment. This data set was used to reconstruct the phylogeny with PAUP, version 4, using parsimony, 500 bootstrap replicates, and maximum likelihood, 100 bootstrap replicates. Future studies will compare this primary endosymbiont phylogeny with that of the insect hosts. If coevolution has occurred, we expect to see congruence between the phylogenies of the symbionts and their hosts.

Kurian, Sherine, Shivanti Willy, DIFFERENCES IN PARENTING AMONG AMERICAN MINORITY WOMEN, Dr. Robert Weis, Psychology

The purpose of this study is to examine the differences in parenting among ethnic minority groups living in the United States. Previous research has identified four different parenting types: authoritative, authoritarian, permissive, and neglectful. Asian Americans have been found to be predominantly authoritative, showing high levels of warmth and control toward their children. Alternatively, African Americans and Hispanics seem to employ a variety of parenting styles instead of one specific style. To investigate differences in parenting across minority groups, 800 mothers of children between the ages two and six years completed the Parent Behavior Inventory, a self-report measure of parenting. Analysis of variance was used to investigate mean differences in parenting across ethnic groups. Results shed light on differences in parenting behavior among minority women in the United States.

Le, Thuy, Rajan, Jessen, INDUCTION AND ACTIVITY OF SUPEROXIDE DISMUTASE (SOD) IN *AIPTASIA PALLIDA*, Dr. Joanne Romagni, Biology

There are a variety of enzymes that act as defense chemicals under stress conditions. One of these is superoxide

dismutase (SOD). The role of SOD is to scavenge free radicals, including singlet oxygen and superoxide radicals, to prevent eventual peroxidation of membranes and cell death. In this study, we have documented the induction and activity of SOD isozymes in the symbiotic anemone, *Aiptasia pallida*, under chronic and acute stress. Our objective was to determine the advantages of the symbiotic relationship under common environmental stresses. We have documented the responses of symbiotic anemones, aposymbiotic anemones and isolated algae (*Symbiodinium* sp) to both chronic and acute salinity and temperature stresses. We have determined that there is one constitutive isozyme in the anemone *A. pallida*. For the two induced isozymes we observed, it would appear that a minimum of 48 hours is needed for biosynthesis. Pseudo-2-D gels revealed a detailed look at the isozymes. Using Western blotting, we were also able to determine where the isozymes were produced. In quantifying SOD activity, we found that aposymbiotic anemones have a significant increase over controls and symbiotic anemones. Isolated algae exhibited no change under stress conditions. Since sea anemones are a model system for coral, which have the same symbiotic relationship with algae, better understanding of stress response mechanisms of anemones may give us greater comprehension of the causes of coral bleaching in order to devise suitable solutions.

Lee, Jennifer , SPECIAL AND DIFFERENTIAL TREATMENT: CENTRAL AMERICA IN THE CONTEXT OF REGIONAL TRADE, Dr. Gustavo Wensjoe, International Studies

Since the 1990s there has been evidence of greater integration between the Developed and Developing world. The Dominican Republic-Central America Free Trade Agreement (DR-CAFTA) and Free Trade Area of the Americas (FTAA) are a reflection of this new reality. As negotiations proceed in these areas, this author argues that regional arrangements must take into account differences in size and development. Appropriate Special and Differential Treatment (SDT) criteria must be incorporated into these proposed agreements, otherwise the interests of the smaller and less developed economies will be largely overlooked. In particular, the DR-CAFTA has inadequately addressed the issue of SDT. This paper will first review the extant literature on trade and regionalism. It will then chart the evolutionary efforts of Central America in terms of economic integration from the 1960s to the present. The challenge of asymmetries between members of the current DR-CAFTA and the FTAA initiatives will then be addressed. Finally, a complete examination of the costs and benefits from both sides will be used to formulate directives for special treatment of the issue of integration between the members of the proposed DR-CAFTA. As regional trade blocks of this kind confront members with bridging dramatic disparities in levels of economy and size, SDT plays a vital role to their success. Amidst a greater interest in whether trading blocks between less-developed states can be successfully achieved with developed nations, the question of what must be done to ensure the sustainable success of these smaller states is paramount.

Ludwig, Norma, PORTRAITS IN COURAGE? ASSESSING THE ETHICS OF GOVERNMENT WHISTLEBLOWERS, Dr. Jon R. Taylor, Political Science

This paper assesses the ethical role of whistleblowing within government. Because whistleblowing involves a public employee's decision to disclose potentially damaging information regarding fraudulent or inappropriate actions in a unconventional manner, the public assumes that this is an extraordinary risk taken by the individual. While it is true that whistleblowing can easily lead to a host of legal and personal problems for the individual undertaking such an action, is whistleblowing the radical resolution to ethical allegations within a governmental organization? It is hypothesized that whistleblowing is not as risk-adverse to a public employee as is conventionally portrayed, and that the common conception of whistleblowers as morally and ethically superior obscures our understanding of why public employees engage in whistleblowing activity.

Martin, Joshua , COLONIAL EXTRACTION TECHNIQUES IN SUB-SAHARAN AFRICA, Dr. Hans Stockton, International Studies

In the history of Africa there have been only a few events that have received as much attention as decolonization. Many scholars view decolonization as the pivotal moment in the development of a modern Africa. This paper will seek to identify the exact techniques that each of the colonial powers used when removing themselves from their colonies. In doing so this paper will concentrate on the Colonial masters own view of their colonies and the attempts that were made in establishing a solid basis for government at the time of removal from their colonies. It will also be important for the reader to fully understand the term "colonialism" and its counterparts "imperialism" and "neo-colonialism." This paper will also address the important events that occurred around the world that affected the colonial master's view of colonialism and why they decided to remove themselves from the region. Another important part to this paper and this argument is over African Nationalism. African Nationalism was a movement that arose because of colonialism and it had the greatest affect on the extraction techniques used by the colonial masters. African Nationalism forced the process of decolonization to soon and this in return left many of the

countries very vulnerable to civil wars and improper government. When examining African Nationalism, this paper will look at specific case studies that involve the British, French, Belgian, and Portuguese colonial empires and the affects that African Nationalism had upon the extraction techniques used by the colonial masters. This paper will show that the extraction techniques used by the colonial masters did have the greatest affect upon the development of a modern Africa, but the removal of the colonial masters was rushed by African Nationalism and in return left many of the countries ill-prepared for proper government and development.

Martinez, Amber, THE PSYCHOLOGY OF SHAME AND GUILT AND THE SACRAMENT OF CONFESSION, Sr. Paula Jean Miller, F.S.E., Catholic Studies

Vatican Council II calls the Church to work with the social sciences to develop pastoral care that enables the faithful to live a more authentic and fulfilling faith life. Current research in the field of psychology has examined the phenomenon of guilt and shame, elements integral to sacramental confession. Although psychological counseling has, in many cases, replaced the confessional, its advancements and new insights can be used to enhance the confession experience. If psychologists and pastors dialogue, this relationship will help them to better counsel the whole person, spiritually and psychologically. Father John Corapi, S.T.D., says that of all professionals, psychologists are the ones in the position to work most closely with the priest in pastoral care. This media presentation provides a multi-disciplinary definition of shame and guilt, and proposes ways that psychologists and priests can work together to respect both the integrity of the Sacrament of Confession and the dynamic multi-faceted dimensions of the human person.

Martinez, Michelle, JUSTICE SERVED? ASSESSING JUVENILE-OFFENDER CAPITAL PUNISHMENT CASES, Dr. Jon Taylor, Political Science

This paper addresses the underlying symbolic nature of popular support for and against juvenile-offender capital punishment in the United States. Capital punishment has played a paradoxical role within American social and political culture. Support for the death penalty has remained consistently high since the mid-1970s. Yet, concern about the appropriateness of punishment, issues of disproportionate application to minorities, and questions about the ultimate guilt of an individual due to improvements in crime scene testing technology have caused many proponents of the death penalty to now call for a halt to all capital punishment. It is within this debate that a more problematical debate has arisen: the legitimacy of the use of capital punishment on juvenile offenders. Because the death penalty is the most popular method of exacting societal justice in capital cases, it is argued that the conflict between supporters of retention and abolition of the death penalty is as much symbolic as it is political. This conflict recently made national news in the Supreme Court decision of *Roper v. Simmons* (2005), which outlawed the use of the death penalty in juvenile-offender cases. It is hypothesized that the Supreme Court intervened to end both the symbolic and political debate over the application of this portion of the death penalty. It is also hypothesized that this debate has obscured the issue of applying the death penalty in other capital cases as well.

Massey, Daniel, MULTI-WAVELET BASIS FOR QUANTUM MECHANICAL CALCULATIONS, Dr. Michael Colvin, Mathematics

Wavelets are a class of functions that have no analytical form and that can be tailored to have several unique properties. These special properties of wavelets can provide information compression advantages in numerical quantum mechanical calculations. Single-wavelet families have successfully been used to better calculate quantum mechanical problems and other complicated partial differential equation, but there is a limit on the number and type of properties single-wavelets can have. A new variety of wavelets, multi-wavelets, can in principal have an inexhaustible number of properties tailored to it. Using a multi-wavelet basis with particular properties one can overcome the immense difficulties that arise when trying to solve the Schrodinger equation for many quantum mechanical problems. We have developed a multi-wavelet system composed of orthonormal, multiplicity 2, symmetric/anti-symmetric pair, multi-scaling, wavelets with compact support ranging from length 2 to 5, exact polynomial reproduction up to cubic order, and accompanying orthonormal scaling and wavelet edge functions. No current multi-wavelet system simultaneously possesses all these properties, which should prove exceedingly useful for solving quantum mechanical problems.

Mayo, J. T., Cafer T. Yavuz*, William W. Yu*, Joshua C. Falkner*, and Vicki Colvin* (*Rice University), SYNTHESIS AND MAGNETIC MULTIPLEX SEPARATION OF SUPERPARAMAGNETIC MAGNETITE NANOCRYSTALS, Dr. Thomas B. Malloy, Jr., Chemistry

Uniform size and highly monodisperse ($\delta = 5\text{-}10\%$) magnetite (Fe_3O_4) nanocrystals were synthesized utilizing two different solvothermal reactions of iron (III) species (FeOOH and $\text{Fe}(\text{acac})_3$). Wide range of sizes (4, 6, 8, 11, 12, 14, 20, 26, 33 nm) achieved, characterized and used for further applications. Size dependent magnetic separation was studied and applied to polydisperse samples successfully. Iron content of effluents was determined by ICP-AES. Magnetic field strength vs. percent retention of individual sizes reported. Magnetic multiplex separation method is created and proposed for bio-magnetic separations. Superparamagnetic limit for magnetite ($R_c = 34$ nm) is experimentally reported for the first time. Arsenic adsorption to nanosize magnetite is shown and compared to bulk material as a proof of wide variety of applications. 3D arrays of ultrafine magnetite nanocrystals with different nanosized materials (i.e. CdSe, C60, TiO_2) are also being tested.

Mayo, J. T., Shane Ninan, Thao Vu, Jessen Rajan, Hai Nguyen, Michael Holliday. STUDENT AFFILIATES OF THE AMERICAN CHEMICAL SOCIETY AT THE UNIVERSITY OF ST. THOMAS, Dr. Thomas B. Malloy, Jr., Chemistry

SAACS at University of St. Thomas has attained Honorable Mention or Commendable status for the last five years. This has been accomplished through publicizing and holding regular meetings, by planning activities of interest to the student members, by interacting with the Local ACS section and with the community. One of the goals this year was to increase the number of students who join the National ACS and we have been successful in this. Attending scientific conferences is important and we were well represented at the Regional ACS Meeting in Fort Worth and at the San Diego National ACS Meeting. Houston is a center of activity in the chemical industry and we invite speakers from local industry and universities to present seminars on campus. We also take field trips to local facilities. Social interactions are important and we have end of semester banquets with other science and health professions related organizations. Examples of these activities will be presented.

McCall, Matthew, THE HARMONY BETWEEN THOUGHT AND REALITY: A COMPARATIVE ANALYSIS OF AQUINAS AND WITTGENSTEIN ON THE MIND, Dr. Christopher Martin, Philosophy

In "Intentionality: Aquinas and Wittgenstein" (Chapter 5 of *The Legacy of Wittgenstein*) Anthony Kenny suggests that both Aquinas' and the later Wittgenstein's philosophy of the mind correspond in a viable and fecund manner. It is, then, the aim of this paper to seek out in detail justifications for this claim. Accordingly, Aquinas' theory of the potential and active intellect and intentional existence will be put in comparison with Wittgenstein's thoughts on understanding, meaning as use and intentionality as found in his later works. Hopefully, if the above intentions demonstrate accurately, it will be shown that many of Aquinas' thoughts, especially regarding intellect as capacity, are reflected, in one form or another, in Wittgenstein's. However, despite such agreements, it will also be demonstrated that in regards to the above the two philosophers ultimately remain at an unbridgeable gap.

McCarthy, Morgan, A MAKEUP DESIGN PROCESS AND LIVE DEMONSTRATION, Prof. Claire McDonald, Drama

As with all areas of design a conceptual process takes place. This process begins with "observational notes", pure pieces of observed information from the world around us. The second phase of the design process is a digestion of this information together with more traditional forms of research. This design research culminates in the formation of a symbolic concept for the piece. The process ends when a product is presented on stage in production. This presentation will show the design process of an old age makeup for a small stage. It will begin with the tools a makeup artist uses to collect "observational notes" and end with a live demonstration of the makeup.

McConn, Tim, SPRAWLED OUT: THE STATE OF AMERICA'S CITIES TODAY, Dr. Jon Taylor, Political Science

This study assesses the trend of urban sprawl found in almost all of America's cities and metropolitan areas today. The paper addresses the problems associated with sprawl, with particular attention given to the origins of sprawl, using specific urban case studies as a venue of analysis. Additionally, attention is given to the strain that sprawl puts on local governments to provide public services, as well as the common economic, social, and cultural effects that sprawl appears to have on urban and suburban America. Finally, an assessment of "Smart Growth" and other urban planning, reinvestment, and renewal techniques is offered, with an interest in applying these techniques to the persistent problem of sprawl in Houston and in other metropolitan areas of the United States. The study

hypothesizes that local, state, and federal government policymakers engage in a conscious positive-sum trade-off game with commercial and residential developers, as well as taxpaying homebuyers, in order to guarantee their re-election and political power. It is further hypothesized that these trade-offs cross party and regional cleavages, resulting in increasing levels of urban sprawl throughout all regions of the United States.

McMichael, Jillian, BEYOND OUR MEANS: A COMPARATIVE STUDY OF NATIONAL CONSUMPTION PATTERNS OF NATURAL RESOURCES, Dr. Gustavo Wensjoe, International Studies

Since the dawn of the era of mass consumption, the rates of which natural resources have been consumed in the developed world have increased exponentially. The near tripling of the world's population, combined with an unprecedented increase in the standard of living for inhabitants of the world's wealthiest nations has had enormous repercussions on the dwindling supply of natural resources. It is estimated that in order to raise the standard of living for every individual in the developing world to that of an American, four additional earths would be needed to supply the resources. While the United States is generally singled out for its lackluster public policies regarding consumption, this author will argue that the solution to this threat rests not in the hands of a single country, but in the adoption of a global shift in public policy which encourages responsible national consumption choices consistent with sustainable development. When limited time and limited resources are combined with an ever-growing world population, achieving the delicate balance between the scarce reserves and consumer demand is fundamentally critical to the future of human civilization.

Mendez, Megan, WHAT IS COUNTRY RISK, WHAT ARE THE VARIABLES, AND HOW IS IT CONDUCTED? Dr. Hans Stockton, International Studies

With an increase in globalization, there are greater demands on the strategy and planning of multinational corporations (MNCs) that must be taken into consideration to address the multitude of cross-cultural, political, and economic contexts. Each country presents different geographic, political, and economic environments; therefore, MNCs have to adjust to each country in a more sculpted manner. Country, political, financial, cultural, environmental, and social risk all need consideration in order to lay stable foundations for market entry. With companies entering the global market, risk assessment is necessary, and by using a list of important risk indicators, the probability of market entry success will be greater. In this thesis, there are three objectives. The first objective is to provide an overview on what country risk is. Country risk affects every aspect of the market entry process, therefore an understanding and analysis of country risk is necessary. The second objective is to provide the variables of country risk. Since country risk involves several variables, my objective is to provide a discussion on the more prominent ones. The third objective of the paper is to show how risk is conducted. In using the important indicators, an analysis can be made to determine how and MNC will be affected upon entering a market. The literature reviewed for this thesis includes concepts on cross-cultural analysis, multination integration analyses, risk management principles, and country risk assessments. Using ideas that have been explored by others, I will be able to apply them to the objectives. In order to complete the objectives, I will first discuss what country risk is and how it has been conducted in the past. Next, I will discuss how it is currently conducted and what its variables and indicators are. Thirdly, there will be a discussion of the record of accomplishment of risk assessment and the value of risk assessment today.

Mintz, Silvia, INTERNATIONAL LAW AND ITS RELEVANCE IN CONFLICT RESOLUTION , Prof. Rick Young , Political Science

My thesis is about international law and the relevance of international law as means to resolve internal conflict. By allowing international organizations to aid in the resolution of internal conflict, countries like Guatemala and El Salvador have achieved peace after years of war through the implementation of truth commissions. My research begins with discussing International Law, its principles and, its evolution. Afterwards, I explore International Human Rights its development and its protection as part of the International Law System; following, I provide an overview of Human Rights Violations in Guatemala and El Salvador during their years of war. My discussion continues by pointing out International Law as a mechanism to achieve a resolution of conflict. This can be exemplified by the truth commissions established in Guatemala and El Salvador. These truth commissions worked effectively and allowed the inclusion of all the parties involved in the conflict to achieve peace accords and an end to the years of internal war, here I point out the importance of international organizations like the United Nations as a key element to organize the truth commissions and thus, achieve peace. The end of my work, points out the relevance and the need of International Humanitarian Rights Law in order to achieve a peaceful society that will benefit all the states in this time of globalization and how international organizations play a key role in helping states

suffering with war, to find alternative ways to achieve a peaceful resolution instead of the use of violence as the means to end conflict

Montillo, Ally, TO FIGHT OR NOT TO FIGHT - EVOLVING PERSPECTIVES IN MODERN WARFARE: THE LEGAL AND ETHICAL ISSUE OF ANTICIPATORY SELF-DEFENSE, Dr. Linda Pett-Conklin, International Studies

On June 7, 1981, claiming their right to anticipatory self-defense, Israeli fighter bombers destroyed Iraq's Osiraq nuclear reactor shortly before it was scheduled to be activated. Similarly, on March 19, 2003, the United States (U.S.) initiated an attack on Iraq declaring that Iraqi leader, Saddam Hussein had continuously violated UN resolutions and posed a dangerous threat giving the U.S. the right to self-defense associated with UN Charter, Article 51. This study examines anticipatory self-defense as developed in international law, customary law and within ethical standards using the just war theory. Two main questions about anticipatory self-defense shall be answered. Do states, under international law, have the right to defend themselves against imminent or future threats of aggression? Second, should states have the right to use anticipatory self-defense and are there any circumstances, which ethically justify or require a state to resort to anticipatory uses of force? This study shall argue that ultimately, the right to anticipatory self-defense is unclear due to the absence of a mutual agreement between international law and customary law. Moreover, in certain circumstances, it is ethically the international community's responsibility to use anticipatory force.

Mott, Julianna, THE TRIALS AND TRIUMPHS OF THE JURY SYSTEM: FROM MEDIEVAL ORIGINS TO MODERN DAY CHALLENGES, Dr. Jon Taylor, Political Science

The legal system as it has been established in the United States is the culmination of centuries of testing and improvement both on the North American continent and in England. The judicial procedure known as trial by jury is not nearly as ancient as the practice of law itself, but this procedure has remained an enduring part of the legal process since its first widespread use under the reign of King Henry II of England. Since the early use of this system, the jury as a legal institution has had to prove its worth by competing against other types of legal remedies for dominance as the preferred mode of trial. In recent years a storm of high profile criminal cases have brought the issues of jury reform and jury preservation to the forefront of legal debate. The challenges posed to proper jury and juror conduct by the increasingly invasive media, juror biases, inequality in the skill set of the presenting lawyers, and even manipulation of the jury are being addressed by the Supreme Court, legal scholars, and courtroom justices. In gaining an understanding of the history and struggle for acceptance that accompanied the rise of the jury trial as a pillar of the judiciary system, the importance of safeguarding this institution will become apparent; and in examining the current challenges to the system, a greater appreciation for the solemnity of the institution will be enriched.

Mundy, Matthew, PLAY BALL! THE IMPACT OF PROFESSIONAL BASEBALL ON AMERICAN POLITICS, Dr. Jon Taylor, Political Science

This paper assesses the impact of professional baseball on American politics and political institutions. Major League Baseball has a strong presence in North America, with 30 Major League baseball teams spread across much of the continent, and can count on former Texas Rangers owner, President Bush, among its most fervent supporters. The game faces a series of critical issues that focus more direct attention on it by national, state, and local policymakers than either professional football or basketball. For years, baseball attempted to cultivate an intersection between sports and politics and did so quite successfully, until passed in popularity by professional football in the late 1950s. It is hypothesized that as baseball grew in sociocultural influence in the United States during the late 19th Century and throughout the 20th Century, so did its political influence within the American political system. Further, it is hypothesized that as baseball waned in popularity in the latter half of the 20th Century, displaced by powerful competition from other major professional sports (particularly football and, to a lesser extent, basketball), it turned to political and legal solutions rather than market solutions in order to positively affect its sociocultural standing and its political position.

Nguyen, Nancy, Mariam Khalil, MICROGEOGRAPHY OF *LAMPROPELTIS GETULA SPLENDIDA* AND *LAMPROPELTIS GETULA HOLBROOKI*, Dr. E. Larry Nordyke, Biology

The microgeography of the desert kingsnake, *Lampropeltis getula splendida* and the speckled kingsnake, *Lampropeltis getula holbrooki*, was studied using mitochondrial DNA sequences. *L. g. splendida* and *L. g. holbrooki* are two subspecies of kingsnakes whose range extends across the Southwestern and Southeastern United States. *L.*

g. splendida also ranges south into Mexico. *L. g. splendida* has shown to be quite consistent in its patterning throughout its range but highly variant from *L. g. holbrooki*. *L. g. holbrooki* on the other hand not only differs with *L. g. splendida* but also has two distinct patterns. The more dominant morph of *L. g. holbrooki* is seen in the regions of the Red River to the upper Texas coast while the lesser resides mainly in the Texas coastal marshes ranging from Corpus Christi to Louisiana. The intergrade of the two subspecies is found along a broad band extending from the Panhandle and two thirds of the Red River southward to the mid-Texas coast. Snakes found on either side of the intermixing zone are most similar to the nearest subspecies, whereas those towards the midsection of the zone show features of both *L. g. splendida* and *L. g. holbrooki*.

Nguyen, Tran, Lateef Lawal, J. T. Mayo, SYNTHESIS OF O-FLUOROALKYL HYDROXYLAMINE HYDROCHLORIDES, Dr. Thomas B. Malloy, Jr. & Dr. William Tinnerman, Chemistry

O-2,3,4,5,6-pentafluorobenzyl hydroxylamine hydrochloride (PFBHA) is an extremely valuable derivatizing agent for carbonyl containing compounds for highly selective and sensitive GC/MS or electron capture detection techniques applied to environmental and other studies. However, the oximes formed of larger less volatile aldehydes and ketones have greatly reduced volatility. Low volatility is not an issue for smaller single carbonyl-containing compounds. However, for more complex, less volatile carbonyl compounds or those that contain multiple carbonyl groups, derivatizing agents that incorporate fluorine fill a useful purpose by increasing the sensitivity for electron capture detection with a minor impact on volatility. We have undertaken the synthesis of O-fluoroalkyl hydroxylamine hydrochlorides as niche derivatizing agents for carbonyl compounds. The criteria we used in choosing the compounds to synthesize included the availability of starting materials and ease of safe handling of reagents. After several false starts, we were able to synthesize O-2,2,2-trifluoroethyl hydroxylamine hydrochloride starting from 2,2,2-trifluoroethanol.

Nguyen, Tran , Jamie Gautreau, Shane Ninan, Andrew Li Yung Hing, Jocelyn John, Julie Joy, AN AB INITIO MOLECULAR ORBITAL PROJECT IN PHYSICAL CHEMISTRY: INTERCONVERSION PATHWAYS IN OXYGENATED ANALOGS OF CYCLOHEXENE, Dr. Thomas B. Malloy, Jr., Chemistry

“WE ARE PERHAPS NOT FAR REMOVED FROM THE TIME WHEN WE SHALL BE ABLE TO SUBMIT THE BULK OF CHEMICAL PHENOMENA TO CALCULATION” JOSEPH LOUIS GAY-LUSSAC, MEMOIRES DE LA SOCIETE D’ARCUEIL, 2, 207 (1808). Perhaps this was a bit optimistic. For centuries, it has been a dream of physicists and chemists to be able to calculate properties of molecules. Over a long period, theoretical methods have been developed and tested. With the advent of quantum mechanics in 1926 and mainframe computers in the middle of the last century, great strides were made, but applications were very limited and only a few experts were involved. As computing power has increased and become readily available on the desktop, more and more problems have become accessible to a much wider group of investigators. It is now possible to calculate the preferred conformations (shapes) of moderate sized molecules and map out interconversion pathways among different conformations with a high degree of confidence. The shapes of molecules and interconversions affect many physical and chemical properties and may be used to predict properties. This report comprises a laboratory project undertaken by teams of students in CHEM 4361, Physical Chemistry on three oxygenated analogs of cyclohexene with the computer Programs GaussViewW and Gaussian03W. We may be closer to Gay-Lussac’s prediction, but comparison with experiment is still essential.

Nichols, Brian, THE TRENCH COAT MAFIA, Dr. Shannon Forbes, English

My presentation is a selection from a novel in progress about the Trench Coat Mafia. This first person narrative seeks to present the reader with the troubled point of view of Eric Harris, one of the Columbine shooters. Beginning several months before the tragedy, and leading up to it, the novel tries to capture the essence of angst and societal rage at the end of the 20th century. Through the first person narrative, the reader is given insight into the innermost thoughts and rituals of a disturbed mind living in a highly fragmented society. The narrative explores Eric’s disillusionment with the universe, his struggle with love and hate, his compulsion to lie, his sexual frustrations, and his obsession with violent video games, 80’s action films, and Nazism. The novel seeks to show how one can be driven to initiate such a calculating attack as the one that occurred at Columbine through this humble and hopeful attempt to transform America’s culture of death.

Nixon, Kari, Steven Gangelhoff, THE EFFECTS OF MATRENAL AGE ON PARENTING QUALITY, Dr. Robert Weis, Psychology

The purpose of our study was to examine the relationship between maternal age and parenting behaviors. Previous research has identified three dimensions to parenting (Maccoby, 1983): (1) warmth, the amount of time and support parents give their children, (2) control, or the degree to which parents attempt to exert authority over their children, and (3) hostility, the level of anger parents show their children. Younger mothers show higher levels of hostility as well as lower levels of warmth toward their children than older mothers. However, the relationship between maternal control and age is unknown. Approximately 800 mothers completed a short survey examining the level of parental warmth, control, and hostility shown toward their children. Analyses of variance showed differences in maternal behaviors as a function of age. Results suggest that age, and perhaps parental experience, influence parental behaviors (Ragozin, 1982).

Ortiz, David, ANTI-AMERICANISM: A DEVELOPING GLOBAL CULTURE, Dr. Linda Pett-Conklin

To most Americans, September 11th opened a deep wound between the United States and the rest of the world. The people of the United States reacted with disbelief and surprise that others could express such hatred and frustration toward a country that stood for freedom and democracy. But the world looked on, wondering how we could be so surprised. To most Americans, anti-Americanism became an issue early in the morning of September 11th, while the rest of the world points the finger to American foreign policy of the past and present for the hatred and frustration shown toward the United States. The substance of anti-Americanism reaches deeper than foreign policy. Foreign policy does not explain how the U.S. could be “unduly religious, almost embarrassingly so” to Europeans but at the same time represent “The Great Satan” and the secular nation that the Muslim world is called to repel and destroy. Anti-American sentiment goes beyond foreign policy and reaches into the very cultures that frame the lives of those who at every twitch, movement and groan made by the U.S., remain ever suspicious of a country that is likened to a colossus or to a Caesar that bestrides the world. This paper will analyze anti-Americanism in the European and the Arab world to gain a greater understanding about the role of culture and its function in understanding biases and interpretations of U.S. Foreign Policy.

Oviedo, Claudia , Caroline DeLeonardis, DETERMINATION OF GLUTATHIONE REDUCTASE ACTIVITY IN *AIPTASIA PALLIDA* UNDER VARYING SALINITY AND TEMPERATURE., Dr. Joanne Romagni, Biology

The sea anemone, *Aiptasia pallida* has a mutualistic relationship with the zooxanthellae, *Symbiodinium*. Glutathione Reductase (GR) is an enzyme important under environmental stress conditions, such as excess heat, salinity, etc. It exists as a homodimeric protein and is involved in a process of detoxification. It removes the free radicals that are produced during stress events. We know from previous research that as temperature increases, there is more GR produced by the cells. This research is to determine whether the host anemone or the symbiont is responsible for the majority of the GR activity under temperature and salinity stress. To achieve these ends, we are using a spectrophotometer at set wavelength of 550 nm to examine the absorbance, thereby indicating the level of activity of the enzyme. This is part of a larger project that is attempting to determine the advantages of symbiosis. It has broader environmental impact, since *A. pallida* is a model system for corals and coral bleaching.

Pasztor, Suzanne, THEORIES OF WAR IN THE UNITED STATES, Dr. Hans Stockton, International Studies

This paper will examine the factors that would tempt a president to use war as a diversionary tactic. Even though every instance of aggressive foreign policy cannot be quantified, it is my understanding that there is a diversionary theory at play (also referred to as the “rally around the flag” phenomenon). The theory contends the president will use acts of war to divert the public’s attention away from domestic conditions particularly during an electoral cycle. It is also based on the premise that the public will “rally around the flag” and increase their support for the president during an international crisis. There is research that establishes validity to the diversionary theory while other studies conclude the findings are not sufficiently proven. This study will identify the variables that compose the extant research such as the political climate, economic status and the social climate in the United States previous to the escalation of the war in Vietnam, the Grenada War, and the Persian Gulf War. Using data from the administrations of President Lyndon B. Johnson, President Ronald Reagan and President George H. W. Bush I will compare the findings so as to identify the presence or absence of common themes or conditions. The evidence indicates that there are no common factors for all three administrations. They do suggest that negative public approval ratings are an indicator for re-election.

Patel, Ankit, Tran, T., Duong, T., CHARACTERIZING VARIOUS ANALOGS OF EMODIN AND RHADOCLADONIC ANTHRAQUINONE DERIVATIVES, Dr. Joanne Romagni , Biology

Plants synthesize numerous bioactive defense molecules, also called secondary metabolites. Anthraquinones are naturally occurring secondary metabolites that possess a polycyclic aromatic hydrocarbon structure with two opposite carbonyl groups at positions 9 and 10. Analogues of two anthraquinones, emodin and rhodocladonic acid, were studied. These differ in the specific positions of the variable side chains. Analogs of each derivate group differ with respect to their size and with respect to the presence of a methyl or a hydroxyl group at the terminal end. The side groups give each analog its distinctive properties and help to dictate their specific function. This study examined five emodin and five rhodocladonic analogs by performing various tests. The results obtained may be useful for future study and characterization of these compounds. We hope that these results aid in the understanding of secondary metabolites in nature and lead to their potential applications in medicine, agriculture, and industry.

Pawlik, Jennifer, Le, Thuy, INDUCTION AND ACTIVITY OF SUPEROXIDE DISMUTASE (SOD) IN AMERICAMYSIS BAHIA EXPOSED TO SALINITY STRESS, Dr. Joanne Romagni & Dr. Ruth Bagnall, Biology

Americamysis bahia is a small crustacean that is a significant component of estuarine food webs. Mysid shrimp are important indicators of environmental quality in marine habitats, and *A. bahia* is specified by the Environmental Protection Agency for use in bioassays of substances to be discharged into marine and estuarine waters. In many environmentally stressed organisms, induction of isozymes of superoxide dismutase (SOD) occurs. SOD protects cells against oxidative stress. In this study, spectrophotometric assays, native gels and pseudo-2-D gels were used to determine the forms of SOD isozymes present and quantify their activity in mysids subjected to salinity stress. In documenting the induction of SOD in *A. bahia* under acute and chronic salinity stress, we found that there are several constitutive SOD isozymes whose concentrations appear to decrease after 48 hours. In determining SOD activity, we observed that a minimum of 48 hours is required for a measurable cellular response. We hope better understanding of the levels of common estuarine stressors that induce a higher production of SOD will help in modeling environmental quality indicators for marine habitats.

Philip, Rosemarie, FSE, THE BODY OF CHRIST HAS HIV/AIDS, Sr. Paula Jean Miller, F.S.E., Catholic Studies

HIV/AIDS is a disease that affects each and every one of us. Rapidly spreading in the U.S. since June of 1981, it is a disease that knows no boundaries. As the largest pandemic in global history, it affects young and old, poor and rich, every race, color, and creed. Continuing to stump the medical profession, HIV/AIDS also carries a stigma that psychologically drains both those infected and affected. A history of fear, hate, guilt, shame, and rejection has become the foundation for the HIV/AIDS stigma. This presentation will discuss the psychological effects of the stigma, and integrate Church teaching concerning the pastoral care of those suffering from the physical, psychological, social, and spiritual effects of this disease. Redemption of the sin-conditions surrounding this stigma requires eliminating prejudices and looking at facts, responding with compassion rather than disdain, and understanding that since, "when one suffers we all suffer", it is the entire Body of Christ that has HIV/AIDS. Until we claim this suffering in ourselves, we are unable to participate in its redemption by creating relationships -- not of superiority to the HIV-positive person -- but side-by-side.

Puoc, Victor, Paul Evans, DISTANT AWAKENINGS, Dr. Janet Lowery, English

I intend to present my work in creative writing, which has been composed over the last academic year. The entirety of the work is a collection of individual pieces of poetry and prose. The presentation will be a reading consisting of one of those pieces, and it will be accompanied by music.

Poole, Love, Jeanie Low, Michelle Rousseau, and Andrea Jasso, EFFECTS OF SOCIOECONOMIC STRESS ON PARENTING BEHAVIOR, Dr. Robert Weis, Psychology

The purpose of our study was to examine the effects of Socioeconomic Status (SES) on mother's parenting behavior. Previous research (Pinderhughes et al.; 2000) showed strong correlations between higher levels of parenting stress and harsher discipline responses toward children. We reasoned that one particular source of stress, caused by low socioeconomic status, might adversely influence parenting practices. In our study, 800 mothers of children aged 2-6 years completed the Parent Behavior Inventory, a self-report measure of parenting that assesses maternal control, hostility/coercion, and warmth/supportiveness. Analysis of variance was used to assess differences

in parenting behavior as a function of socioeconomic stress. Results imply that mothers with higher socioeconomic stress will result in less warmth, more hostility/coercion, and more control towards their children.

Rawlinson, Jamie, REGIONAL TRADE AGREEMENTS AND MULTILATERALISM: CAN OPPOSITES ATTRACT? Dr. Gustavo Wensjoe, International Studies

Following the end of World War II, the international community experienced revolutionary growth in the realm of trade. Throughout the 1940s until the 1970s, the U.S. was an active proponent of multilateralism through the GATT, while developing countries felt neglected and underrepresented. Consequently, developing countries sought bilateral and regional trade agreements amongst themselves and with developed countries. The transformation of the WTO in 1995 attempted to set standards for regional trade areas and make more concessions to developing countries. This author argues that when regionalization occurs amongst developing countries it can be conducive to multilateralism by increasing their leverage in the WTO, creating a level playing field. The paper will start by reviewing the history and development of the GATT and its development into the WTO. In addition, accessing the principles of the GATT/WTO in light of regional trade agreements will be reviewed. Next, benefits and drawbacks to regionalism will be evaluated. To better illustrate RTAs as building blocks when entered into by developing countries, a brief case study of MERCOSUR will be discussed. Increased regionalism is becoming of greater importance in the current international trade environment. Some scholars see the world dividing into large regional trade areas constantly in tension with each other. Others view regional trade areas as an inevitable step on the road to multilateralism. With increases in global trade, the role of RTAs will become more defined as their presence continues to both aid and deter multilateral negotiations

Rice, Stephanie, WATER QUALITY STUDY OF WHITE OAK BAYOU, SUMMER 2004, Dr. William M. Harris, Environmental Science

White Oak Bayou is an important tributary that influences the water quality of Buffalo Bayou from downtown Houston, Texas to the Ship Channel Turning Basin. Water quality in White Oak Bayou is influenced by many wastewater treatment plants and stormwater outfalls. The watershed for White Oak Bayou is also known for failing septic systems that leak into the groundwater and surface water systems. The purpose of this study is to determine the water quality of White Oak Bayou from its headwaters in northwest Harris County to its confluence with the Buffalo Bayou. Potential sources of water pollution include natural, human point-sources and human non-point sources. Untreated or inadequately treated sewage effluent may result in low dissolved oxygen and altered pH, signs of impairment. Water samples were collected every two weeks between June 6 and August 22 of 2004. These samples were analyzed for water quality marker chemicals, including phosphates, turbidity, alkalinity, conductivity, TDS (Total Dissolved Solids), and BOD (Biochemical Oxygen Demand).

Richardson, Michael, THE RUSSIAN RESPONSE TO ENVIRONMENTAL DEGRADATION, Dr. Linda Pett-Conklin, International Studies

When the Soviet Union fell in the early 1990s, much information surfaced over the flagrant disregard of environmental protection laws by both industries and government officials throughout the Soviet era. Under the Soviet Union, the government response to the need for environmental protection was to implement conservation laws without proper enforcement mechanisms. Consequently, harmful bi-products of Soviet industrial development severely disturbed large portions of Russia's natural environment. Currently, Russia is facing many difficulties with environmental degradation as a result of extensive pollution during the Soviet era and current ecologically harmful activities that continue to plague this land. Russians are thus faced with the critical question of what the most effective tool for cleaning up these environmental problems would be. Though this country's governmental system is currently democratic, the position of the president still maintains some authoritarian elements due to a historic legacy of Soviet dictatorial leadership. The government thus continues to exert extreme influence in all social issues facing Russian society. At the same time, however, the people have historically had some success in influencing the government to enact policies to protect the environment. As such, the public will have an important role to play in determining the future state of Russia's natural environment. Ultimately, in order for Russia to effectively clean up its ecological problems and prevent future degradation to their environment, the Russian government must enact and enforce environmentally-friendly policies, and the people must play an active role in steering the government towards these policies.

Rivera, Roberta, YEATS' UTILIZATION OF AESTHETICISM, SYMBOLISM, AND CREATIVITY IN HIS POEM "EASTER 1916", Dr. Shannon Forbes, English

With the utilization of aesthetics, symbolism, and creativity, William Butler Yeats exposes the shock of the Easter Rising in his poem "Easter 1916". Yeats uses these three techniques to express to his readers the nationalism and politics of the Ireland he was so passionate about. His poem highlights the mundane, trivial lives of his peer group while at the same time he pays homage to those who left the mundane and trivial to fight for Irish independence. "Easter 1916" also demonstrates Yeats' knowledge of the nature of poetry. Some critics argue whether Yeats is the greatest of all Irish poets who have written in English. David Ward says, "In Yeats' poems in particular, one word, one sentence, one image can mean one thing and it's opposite simultaneously." Yeats takes into consideration every word and phrase to convey to his audience how the Easter Rebellion affected him and proves that "one word, one sentence" can define the nature of poetry. Yeats' poem "Easter 1916" includes aestheticism, symbolism, and creativity which are the means by which he expresses his feelings toward the Easter Rising and conveys his knowledge of the nature of poetry. Therefore, as some critics agree, he is one of the greatest of all Irish poets to have written in English.

Roberts, Shawna , THE ELECTION OF 1864, Dr. Joseph McFadden, History

For this research project I have chosen to review two opposing newspapers from the Valley of the Shadow web site, on their editorial stand regarding the election of 1864. The first is the republican backed Franklin Repository and Transcript, and the second is the democratic Valley Spirit; both papers derive from Franklin County Pennsylvania. The election of 1864 was a contentious one, one that would test the determination of both a nation and its president. In retrospect, it seems inevitable republican, Abraham Lincoln was going to win re-election and resume the presidency over the candidacy of George B. McClellan. Reading these two newspapers presented an entirely different view of the election as these two newspapers battled with intense party fervor in support of their candidate. Similar to our current Bush/Kerry election, a war was waging and the country was divided as to a solution, not to mention the rampant disputes concerning the initial goals for the war. The Civil War began on the premise of saving and restoring the Union from secession, but soon slavery and its despicableness became a primary issue. Through the mudslinging of the two papers, the one point that arose from both was their insistent claim that they were the ones upholding the constitution. Both sides were so convinced that the constitution was on their side and the opponent was wholeheartedly irreverent to the sacred words. This obsession with which side the constitution really belongs to, and who is properly abiding by its principles, is the key issue of the 1864 election and the one I will be discussing in my presentation.

Robertson, Catherine, THE DISPLACEMENT OF UNSKILLED MIDDLE-AGED MANUFACTURING WORKERS AND THE SOCIAL AND ECONOMIC DIFFICULTIES THEY FACE RE-ENTERING THE JOB MARKET, Dr. John Burke, Political Science

During the post World War II era (1945-1973), a college education was not a prerequisite for acquiring a relatively middle to high paying job, earning a sufficient living, and establishing a lasting, respectable career. The prosperity of American blue-collar industry was then undeniable. However, due to the deindustrialization of America and the shift in the economy from goods production to service production, employment conditions changed drastically. Mass layoffs in the manufacturing industry have occurred at epidemic proportions all over the United States, resulting in millions of displaced personnel. Workers have been left without the credentials necessary to fend for themselves in a new economy that places value on attributes completely different than they are accustomed. Countless displaced manufacturing workers seeking new sources of employment find that they are considered to be low cost, high risk, unskilled labor. My paper argues that displaced workers must overcome many obstacles in their efforts to secure reemployment and recover some positive aspects of their lives prior to displacement. These obstacles include frustration from failed attempts at self-improvement in vocational training classes and insufficient assistance programs, financial debt, preconceived notions about age, and personal difficulties such as deteriorated physical health and general overall disruption. However, there is a general lack of care and an unwillingness on the part of the influential to acknowledge the crisis and the costly repercussions for society as a whole. Because of this reluctance to realize the fact that the problems of others can eventually become personal, the situation continues.

Rodriguez, Ivette, A NATIONAL OVERVIEW OF HISPANIC VOTER TURNOUT, Dr. John Burke, Political Science

With the recent surge of Latin Americans in the United States, it is curious the largest minority group in America

has one of the lowest political participation rates. Through a compilation of several quantitative and qualitative analyses of national and regional voter turnout polls and other case studies regarding Hispanic Americans, this paper offers an analysis on the impact of demographic factors that deter Hispanic Americans from voting. I suggest certain economic, geographic, and generational factors such as age, citizenship, and country of origin, impede Hispanic Americans from reaching their potential level of political influence. My research demonstrates that the current efforts to mobilize Hispanic voters do not take the appropriate steps to overcome the various demographic and ethnic variables that are impeding Hispanics from turning out in numbers equal to other minorities. Finally, it also offers some alternatives that have improved Hispanic voter turnout.

Ross, Serena , HOW TO WIN THE RACE: A CASE STUDY ON AFRICAN AMERICANS AND THE PURSUIT OF HIGHER EDUCATION, Dr. John Burke, Political Science

This research paper will provide an in-depth examination of the historical and contemporary research on African Americans and the pursuit of higher education, detailing how the research can be divided into three general schools of thought: structure, agency, and combination approaches. In order to test the accuracy of the documented theories, surveys and follow-up interviews were completed at a local public high school with a high number of graduating African American seniors. Analysis of the original data answers the following questions: Why are some African American high school seniors choosing not to attend a four-year college immediately after graduation? Which theory does the data support? What can the surveyed high school do in order to promote African American academic achievement and increase the number of African American students applying to and attending four-year colleges? What suggestions can be made for new public policies? And in addition, what can the students, parents, and administrators do to help African Americans win the educational race?

Ross, Serena, THE ABSENCE OF I: A COMPILATION OF ORIGINAL SHORT STORIES, Dr. Janet Lowery, English

In "Modern Novels," Virginia Woolf criticizes traditional literature's linear approach to characterization and plot; the author expostulates that modern novels should reflect the complexities of reality. Woolf mutates and expands the traditional concept of character; similarly, the author transforms the concept of plot. The unconventional treatment of time within plot forces the reader to confront a reality where the past, present, and future blend seamlessly. Utilizing Woolf's tenets of the modern novel, this paper is a compilation of original short stories that examine the relationships between women. Primarily, the stories examine the complexities of the mother-daughter relationship. The inter-related relationships and recurring symbols unify the short work. Readers should analyze each story in an effort to resolve the identity of each protagonist.

Ryan, Nicholas, PELAGIUS THE Gnostic: AN ASSAULT ON ORIGINAL SIN AND THE FOUNDATIONS OF NATURAL LAW, Sr. Madeleine Grace, C.V.I., Theology

An examination of Pelagius' "Epistle to Demetrias" and the ramifications of his conclusions with regard to Original Sin and Thomistic Natural Law theory.

Salinas, Fortuna, THE IDENTITY OF LOVE BETWEEN ADAM AND EVE, Dr. Clinton Brand, English

In the epic poem *Paradise Lost* written by John Milton, the complex interpersonal affairs among its varying characters strangely consist both of sordid, sexual distortions and sacrificial, spiritual love. Milton demonstrates the capacity of destruction and atrociousness through the evilness of Satan and Sin, but also the incomprehensible love of God the Father and the Son. The human love expressed by Adam and Eve differs from Satan's deformed love and from God's pure love by its earthly variations of spiritual union, innocent sex, and evil lust. Milton expresses the human love of Adam and Eve through the changing experience of a supreme form of being into an imitation of devilish lust. He first explains the vast spectrum of Satan and God, then includes a deviation of both identities in Adam and Eve. Milton progresses the relationship of Adam of Eve from a child-like helpless love, to a mature level of understanding between mind and soul, and eventually to the search of self-gratification. Milton links lust with Satan, and therefore directly implies the consequences from departing from God. On the other hand, Milton converts the image of affection through the relationship of God the Father and the Son with the utilization of divine and supreme love. Adam and Eve's love travels through a road of revelation, maturity, and indulgence. All three relationships exhibit diverse shapes of love creating the central theme of the poem.

Saqer, Aseel, THE LACK OF UNITY AMONG ARAB-AMERICANS, Dr. Mehdi Noorbaksh, International Studies

The abundance of migration to the United States has led to the emergence of countless minority groups. These groups have managed to establish active and functional community networks in their own visions within their local area. These networks are created and maintained by the community members in order to serve the needs of a specific affiliation of people who view themselves not only as American but also identify with a second, shared characteristic. Whether it be race, religion, ethnicity or ideology that bring such a community together, the defining factor of the success and progress of a minority group in the United States is set by level of unity and cooperation that the members maintain with one another. The Arab-American community living in the United States exhibits a lack of unity with one another and as a result, has not been as successful as its potential would allow it to be in serving the needs and demands of its community members. It will begin by examining the methods and institutions in which minority groups can achieve progress and unity. Next, the different waves of Arab immigration to the United States are discussed, which describe the traits of Arabs that came in these separate generations entailing the demographics, social characteristics, and cultural attributes that define Arab community building. Then, a set of diagnoses for the lack of unity is suggested. At the end, a stronger ethnic identity is prescribed as a solution, to enhance the ability of the Arab-American community in serving the needs of their community members.

Seabolt, Elizabeth, UST drama students, THIS SIDE OF NORMAL (WORKING TITLE), Prof. Sam Havens, Drama

This reading is part of a one-act play involving a middle-aged man who goes back to his rural childhood home to tell his family that he is gay. Joining him on his journey are his twenty-something daughter and his flamboyant best friend. This play is semi-autobiographical. It confronts issues of normalcy and perceived normalcy. The underlying theme of the play is that misery often yields a prize, sometimes in an unexpected form.

This piece contains adult subject matter and language. Viewer discretion is advised.

Sena, Juanita, TRADITIONAL SPANISH LANGUAGE MAINTENANCE AND THE REVITALIZATION OF CULTURE AND FAITH: A MISSION FOR THE BODY OF CHRIST, Sr. Paula Jean Miller, F.S.E., Catholic Studies

The revitalization and maintenance of the dying traditional Spanish language in New Mexico is essential to the Hispanic culture and to the diversity of the world. More importantly, this renewal and reordering of culture through language and customs is essential to the Body of Christ, since humanity's highest goal is communion with God through union with others. This union is achieved in communities, within a culture, and through language, all of which are necessary in living the faith. Language is essential to the purpose and end of man because it is so fundamental to his existence, his nature, and his culture. It affects and shapes one's perception of the world, reports and defines experience, is the method of communication, and is a symbol and means of group identity and solidarity. Through the revitalization of language, culture is restored because language and culture together are based upon the reality in which one lives, and they also create and mold that reality. Through the process of inculturation the dialogue between culture and faith is purified, enriched, and strengthened, and the human person develops toward full and true humanity through the integration of faith and culture. Inculturation, which is a responsibility we must all embrace, is achieved through the efforts of the people within the culture and the faith. What is the mission of the woman within this culture in her roles as daughter and student, professional, and wife and mother, in order to fully participate in the restoration of culture and faith?

Serratos , Kent , Brittany Dusek, Angell Pye, Zachary Bohon, EFFECT OF MATERNAL ETHNICITY AND INCOME ON PARENTING , Dr. Robert Weis, Psychology

The purpose of our study was to determine the effect of ethnicity and socioeconomic status on the parenting behaviors of mothers with young children. Previous research has found that Hispanic and African-American mothers exhibit more control and less warmth toward their children than White mothers (Cardona, Nicholson, & Fox, 2000; Reis, 1993). Furthermore, lower income mothers are more likely than higher income mothers to display hostile behavior toward their children (Martini, Root, & Jenkins, 2004). However, it is unclear whether differences in parenting behavior as a function of ethnicity are actually due to differences in income across ethnicities or differences in culture. To examine the relative importance of ethnicity and income on parenting behavior, 800 mothers with children 2 to 6 years of age completed the Parent Behavior Inventory, a self-report questionnaire of

parenting. The results of the study showed differences in parenting behavior as a function of both ethnicity and income. Our findings provide a better understanding of parenting among these dimensions of the general population.

Shaposhnikova, Anna , GENETICALLY MODIFIED FOODS: HARMFUL OR HELPFUL? THE CASE AGAINST THE BIOTECH INDUSTRY, Dr. Linda Pett-Conklin, International Studies

This paper seeks to understand if genetically modified foods are more harmful than other foods. Most Americans are unaware that 40% of their food is genetically modified. Benefits of genetically modified foods (GMO's) outweigh the risks. However, the American food industry had established a one-sided position. Genetically modified organisms can pose serious dangers to biodiversity and to conventional economies based on agriculture. Unfortunately, GM crops are not a simple answer to world hunger. They are expensive and create poor farmers' dependency on the companies who own the patents and produce pesticides and herbicides required for optimum yield. The American Biotech Industry's conscious choice is not to label, while the European Union demands labeling and testing. The paper concludes that genetically modified organisms are beneficial, but that there is a need for greater regulations and guidelines for the production and distribution of GMO's to ensure public awareness and to protect biodiversity.

Shibley, Amal, NATIONALISM AND CONFLICT: SPAIN AS A MODEL FOR CONFLICT RESOLUTION, Dr. Gustavo Wensjoe , International Studies

Nationalistic forces in existence threaten world stability and peace. Nationalist conflicts emerge as a result of tensions between the state and nationalistic groups placing demands on the state for some form of self-governance. Conflicts as a result of nationalism are a disruptive force that must be dealt with; it is a force that is unrelenting in its cause, legitimate or not. Nationalistic movements take on passive and aggressive forms, which possess the potential to erupt violently. Nationalistic movements that engage in violence worsen the delicate political situations and make them reach crisis proportions, which create not only a disruptive force but also destructive one. Nationalistic conflicts of this type are not only an obstruction to the state, but also have international implications. States plagued with nationalist conflicts must not only manage the effects of the conflicts but they must also resolve the conflict. This author maintains the critical importance of acting in response to legitimate nationalistic demands in order to maintain the long-term coherence and integrity of the state and minimize international conflict spillovers. Furthermore, this paper argues that the Spanish experience in dealing with nationalistic demands should be considered a model suitable for resolving the conflicts that arise out of the movement.

Simpson, Jennifer, EVIL MONSTOR OR INNOCENT VICTIM: THE ROLE OF GENDER IN THE MEDIA REPRESENTATION OF WOMEN WHO KILL, Dr. Michael Boudreau, Criminology

Women have often been under represented as offenders in criminological research. This presentation will examine the role of gender in the media representation of women who kill. Drawing on the tenets of social constructionist and feminist theory, the role of gender in accounts of murder will be examined. The primary research strategy is a latent content analysis of *Globe and Mail* articles covering the Karla Homolka case from January 5th, 1995 to December 27th, 1995. This analysis will be complimented by analysis of themes evident in texts pertaining to historical Canadian murder cases involving women as offenders. The objective of this presentation is to determine whether common themes are present in historical and contemporary representations of women who kill.

Soria, Chester, THE SOCIAL RESPONSIBILITY IN TV AND RADIO LAW: CONCERNS AND RAMIFICATIONS OF MEDIA CENSORSHIP IN VENEZUELA, Dr. Debra Andrist, Spanish

The Venezuelan media and government have been in a bitter battle since the inauguration of Venezuelan President Hugo Chavez' administration. The clash between the former coup leader and the private media has been persistent through the last seven years. The private media has extensively criticized Chavez and his policies towards its members, including verbally harassing, physically injuring journalists, and shutting down media broadcasts at peak times of political conflict. The government, however, has also publicly reprimanded the media for biased and prejudiced reports on the government, as well as falsifying reports and aiding in the 2002 coup attempt. This essay seeks to understand the Social Responsibility in TV and Radio Law in Venezuela, recognizing the impacts that it would have on the private and public media in the South American country. I will explore the degree of responsibility placed on the government to monitor actions taken by the press, as well as the evolving accountability of a media whose role has become a vital part of the growing opposition force in Venezuela. Using citations from

the law itself, as well as by looking at in-depth analysis reporting on both the media's and the government's role in the political disparity, made violently visible at the staged protests and the subsequent referendum recall. I will analyze the repercussions of the media's action, most specifically its shift in roles from informants to counterrevolutionaries and the damages against the private media's freedom of speech, including the possible chilling effect created by the media law.

Sovany, Stephanie , MANDATORY RENEWABLE ENERGY LEGISLATION IN AUSTRALIA: MISSING THE TARGET, Dr. Mehdi Noorbaksh, International Studies

Energy is becoming a greater issue with consumption increasing due to a number of factors as supply is diminishing at an even faster rate. Despite incentives to utilize renewable energy sources, the Australian Government is the first country to make it an official mandate. Ironically, the role of the Australian Government has been speculated as having stifled the sprouting demand of alternative energy through the implementation of the Mandatory Renewable Energy Target (MRET). The Government's objective for the MRET is to increase the use of alternative energy to a higher percentage of general consumption. Since renewable energy consumption was higher prior to the Government's intervention, it is confusing as to why the Government implemented a lower percentage level than the current consumption rates. It is questionable whether the Government should have required a minimum use of the renewable alternatives, since the low levels may have prevented a healthy renewable energy sector. The role of renewable energy is of critical importance considering governments' policy priorities, as well as international organizations. The focus presented in this paper will be one that affects Australia in addition to countries as a whole globally. This paper argues that the MRET, by setting low levels may have, in fact, may have undermined renewable energy in Australia. In effect, this paper will examine the general characteristics and the role of the MRET scheme in order to assess the economic, environmental, and social benefits.

Stalzer, Carolyn, Carolyn Crump, Razeena Ibrahim, Yazmin Salgado, EXPLORATORY FACTOR ANALYSIS OF THE PARENTING BEHAVIOR INVENTORY, Dr. Robert Weis, Psychology

Our study investigated the validity of a self-report instrument of parenting behavior, the Parenting Behavior Inventory (PBI). The PBI was designed to measure three parenting dimensions: control, warmth/supportiveness and hostility/coercion. Baumrind (1991) identified the dimensions of control and warmth, which reflect the level of discipline and affection parents show to their children, respectively. Previous research has proposed that a third parenting dimension, hostility/coercion, can be used to predict the risk of child abuse and child maladjustment. Approximately 800 mothers of children aged two to six years completed the PBI. Exploratory factor analysis was performed on the data in order to establish construct validity and confirm the dimensions that the PBI measures.

Stalzer, Carolyn, HOLISTIC HEALING: INCORPORATING SPIRITUALITY INTO ART THERAPY, Sr. Paula Jean Miller, F.S.E., Catholic Studies

Art therapists guide clients in artistic expression as a means of psychological healing. Like much of psychotherapy, art therapy contains numerous models for treating the patient. In this project various models of art therapy, both spiritual and non-spiritual, are examined in their approach to the human person and suffering. In any psychotherapy it is essential to begin with a proper understanding of the human person and then treat the client in a holistic manner, recognizing mind, body and spirit. Addressing the client's spirituality is important not only because it is fundamental to the human person but also to better effect healing. In addition, an understanding of the Christian meaning of human suffering allows the therapist and the client to recognize psychological suffering as an opportunity for self-examination and growth. The goal of therapy should go beyond seeking a cure for the symptoms and provide true healing that will lead to continued strength and positive growth. However, many of the examined approaches to art therapy seem to lack a true understanding of the human person and the role of suffering. Even the current "spiritual" approaches to art therapy ignore the theistic dimension of man's experience. Therefore, I propose a more theistic approach to spiritual art therapy that is rooted in the true nature of the human person. This proposed model includes guiding the client in exploring his or her spirituality and in coming to a fuller understanding of the role of suffering in his or her life.

Suniga, Matthew, DISCIPLESHIP: THE FORCE FOR LEADERSHIP, Dr. Michele Simms, BSAD

Many civic leaders and business pacesetters in our own communities are persons of profound religious faith. Dr. Robert H. Schuller, renowned Protestant minister and self-proclaimed "possibility thinker" has written and preached

extensively on the topic of visionary leadership. Dr. Schuller has developed four points of Christian living as a foundation for building up visionary leadership among persons and organizations. These points are: faith is a fact, not a fantasy; faith is a force, not a value; faith is a decision, not a debate; faith is a commitment, not an argument. The Catholic philosopher, Dr. Peter Kreeft has also stated that Jesus Christ never instructed his disciples to love humanity in terms of a conceptual abstraction. Christ would rather we love our real neighbor, the person with whom we interact. Using the works of Drs. Schuller and Kreeft, and current research on prevailing models of institutional leadership, I will examine how authentic Christian discipleship can be a force for leadership in our businesses and community organizations.

Tagliabue, Victoria, WHAT I MEANT TO SAY WAS... ASSESSING CAMPAIGN PROMISES OF PRESIDENTIAL CANDIDATES AND INCUMBENTS, Dr. Jean-Philippe Faletta, Political Science

Every presidential candidate focuses on issues he finds important either to himself or for the greater good of the American public. During the campaign season, candidates are expected to take definitive stands on issues ranging from health care to public education to taxes and even civil rights. But, once in office, do presidents maintain their once solid campaign agenda supported by strong rhetoric? This paper will examine the process through which presidential candidates choose campaign issues and follow their policy agenda from their successful campaigns into their administration. By integrating both previous research and personal analysis of Presidential agendas, this paper will examine the policy stances taken by presidents both as candidates and as incumbents to determine if their personal and political ideals are compromised in the name of public approval ratings and political gains.

Toval, Nicole, Yazmin Salgado, Michelle Rousseau, Michelle Bui, Jessica Chapa, & Molly Andrade, CELL PHONES AND DRIVING: A META-ANALYSIS, Dr. Carl Scott, Psychology

The role of cell phones in automobile accidents has drawn increasing attention. Proposed options include outlawing cell phone use while driving, only allowing hands-free phones, and dismissing all concerns as unfounded. We sought to resolve discrepancies by reviewing all studies to offer definitive answers to the questions about cell phone use while driving. We reviewed all studies that examined the cell phone-driving relationship. Eligible reports had: (a) measured driving performance; (b) measured or manipulated cell phone use; and (c) reported sufficient information to calculate an effect size. We distinguished between speed and accuracy measures of performance, and among realism in driving measures. The studies varied greatly in design and measures. Most were repeated-measures experiments using driving simulators. The mean age of driver-participants was 34 years, and approximately 50% were female. The mean ES was medium-large for the effect of cell phone use (compared to control) on driving. Among the other findings were: hands-free units had no advantage over hand-helds, complex phone conversations had slightly greater effects than did simple phone calls, and conversations had large effects (compared to control) on driving. Distractions affected reaction time measures more than performance measures. Combining disparate studies produced a disturbing view of the effect of cell phone use and other distractions on driving performance. Other distractions may be as dangerous as cell phone use, and the controversy over cell phones may draw needed attention to the danger of many distractions for driving performance.

Ung, Jiny , Nam Nguyen, ASIAN AMERICAN HOMOSEXUALITY, Dr. Jon Taylor, Political Science

This paper examines the gay, lesbian, bisexual, and transexual (GLBT) Asian American identity in America beyond the typical barriers that minorities face. The stereotype of the West, the "Model Minority", expects Asian Americans to be the minority that achieves more with less than the minority groups of America. The East upholds tradition, especially "family first and individual second." The Asian Americans that I will examine are those individuals who are of Southeast Asian descent -- including Chinese, Vietnamese, Japanese, and Korean -- who are either first generation Americans or living within the United States. It is hypothesized that because GLBT Asian Americans face obstacles from both worlds, as well as within the GLBT community as a "minority within a minority," a majority either remain closeted or so assimilated, and sometimes feel pressured to become constructed by the majority that studies go unresearched and we fail to see the diversity within the larger GLBT community as well as in the Asian American community. This failure to identify Asian American homosexuality leaves a large gap in both Asian American studies and GLBT studies. The experience of the GLBT Asian American will help to identify important issues, particularly racial and sexual differences concerning identity and individual rights, which affect the "minority within the minority." Because it is important in understanding the diversity of the larger GLBT community and tends to be overlooked, I believe that this research will help to integrate and expand our understanding of Asian American homosexuality into current studies.

Villarreal, Crystal, SECULAR AND FAITH-BASED ORGANIZATIONS: THEIR IMPACT ON MEXICAN-AMERICAN POLITICAL PARTICIPATION, Dr. John F. Burke, Political Science

Research has shown that mobilization is indeed a major factor for the political participation of various ethnic groups, but few have analyzed the organizations' differences in impact. The purpose of this paper is to demonstrate the importance of secular and faith-based organizations as a major factor for Mexican-American political participation. The paper is organized according to the following. First, a literature review concerning previous scholars' works about my topic is given. Second, a detailed analysis of significant organizations is provided with a historical background and their method of organizing. Third, both qualitative and quantitative methods are used to support my research based on data from validated sources, such as the U.S. Census Bureau, the National Political Latino Survey, and short narratives that depict the lives of Latinos, especially those of the Mexican-Americans. Fifth, the results of the research are provided and discussed. Finally, a conclusion is given with additional commentary and future predictions.

Vu, Thao, Liann Marruffo, HIGH-PERFORMANCE LIQUID CHROMATOGRAPHIC DETERMINATION OF VITAMINS B1, B2, B3, B6, AND B12, Dr. John Palasota, Chemistry

Recent studies indicate that the B vitamins play a critical role in human development and the maintenance of good overall health. Deficiencies in the B vitamins have a variety of symptoms and outcomes, including fatigue, nervousness, and impairing human biological development. The purpose of our work is to develop a liquid chromatographic method for the determination of the water-soluble vitamins B1, B2, B3, B6, and B12. Baseline resolution of all five analytes was achieved using a binary mobile phase of methanol and water adjusted to an acidic or neutral pH.

Walnder, Cameron M., THE POLITICAL CONDITIONS OF THE ARTIC NATIONAL WILDLIFE REFUGE ENERGY, ENVIRONMENT AND POLITICS, Dr. Jon Taylor, Political Science

This study explores the use of various discourses in the political struggle over the Arctic National Wildlife Refuge, and provides an interpretation of how this phenomenon adds to the political construction of ANWR, both as a place and as the subject of national debate on levels of energy consumption, national security and wilderness preservation.

Wells, Michael, Nikolay Sirakov, GEOMETRIC HEAT EQUATION WITH ELASTICITY FOR MEDICAL IMAGE SEGMENTATION, Dr. Michael Colvin, Mathematics

This talk presents a work, which is a natural continuation of an approach based on the geometric heat differential equation and vector flow used to segment an image to shells. The advantage of the shells approach is the large capture range and very fast medical image segmentation, but on the other hand it is not able to converge into spiral deep concavities. The main contribution of the present study is the added elasticity that preserves the above features and lets the active contour converge quickly into spiral concavities. Another advantage is the new penalty function, added to the geometric heat equation, that makes it capable of working with color images of varying size, and could also be used for noise cleaning. We created a tool in C++ based on the theoretical concepts developed. The stability condition, truncation error and calculation complexity of the algorithm are determined. The C++ tool is capable of automatic segmenting X-ray and MRI medical images that contain multiple objects. To validate the theoretical concepts a set of experiments were performed. The obtained results together with the run time are given in the paper, comparing them with other segmentation methods working in the field.

Zaheer, Azeemeh, NAZI GERMANY, Dr. Hans Stockton, International Studies

Human beings killed other human beings in great numbers, over an extended period of time during Adolph Hitler's regime. Hitler led an entire nation of males from young to old to become callous murderers. The ethnic cleansing which took place under his Nazi regime was one of the worst acts of genocide in history. The Holocaust brutally took the lives of six million Jewish people and millions Slavs and many others including handicapped and homosexual people. Most of the people involved in these murders were individuals with families and friends of their own. The purpose of this paper is to understand why hundreds of thousands of common men participated in horrible and cruel acts of the Holocaust. The motivation for murders and genocide is an extremely complex issue, therefore this research is not attempting to define the motivation of each individual but, conversely, intend to understand these

acts at an aggregate level. This investigation shall look at three vital impressions of culture that led to such atrocities in the Nazi regime: propaganda, ideology, and groupthink. While examining the cultural context of Nazi Germany and understanding the uses of propaganda, ideology, and group think, this research serves to spread awareness. The preliminary findings thus far suggest that understanding culture is crucial in understanding the behavior of man in his personal or public life. An integral aspect of culture is ideology, which is promoted through propaganda and together produce groupthink. The method used in this research synthesizes literature on culture, ideology and propaganda during Nazi era.

Ziatabar, Sasan , REACTION TO THE LEND LEASE ACT, Dr. Joseph Mcfadden, MLA

The Lend Lease Act of 1941 was crucial to the success of the Allied war machine. The Act was essentially an agreement for the transfer of war supplies to nations whose defense was considered vital to the defense of the United States. It gave the President power to sell, transfer, lend, or lease such war materials. The President was to set the terms for aid, and repayment was to be made in a matter that the President saw fit. Initially the bill was set at \$6 billion and was only meant for Britain and her empire. This kind of power had never been given to a President before and was therefore very controversial at the time. It essentially gave the President more power than Congress when it came to matters of war and peace. In 1942, a reciprocal aid agreement of the United States with Great Britain, Australia, New Zealand, and the Free French was announced. Under its terms a "reverse Lend Lease" was enacted, whereby goods, services, shipping, and military installations were given to American forces overseas. Other nations in which U.S. forces were stationed subsequently adhered to the agreement. On Aug. 21, 1945, President Truman announced the end of lend lease aid. Total Lend Lease aid exceeded \$50 billion, of which the British Commonwealth received \$31 billion and the USSR received over \$11 billion. Within 15 years after the termination of Lend Lease, settlements were made with most of the countries that had received aid, although a complete settlement with the USSR was not reached until 1972. In this paper I will examine the response of the people and the NY Times to this Act. I will do this by reading the NY Times of the time in order to assess how perhaps the most important paper in our country looked at the Lend Lease Act of 1941. The NY Times at that time was the most circulated paper in the country. That is why I have chosen this paper to be the base of my analysis of the attitude of our country toward the Act.