

## MC-21 CHEMISTRY

**Student:** Natasha Berry  
**Faculty:** Dr. Jun Shin  
**Department:** Chemistry  
**Presentation Form:** Power Point  
**Topic:** The Breathalyzer: Law Enforcement's Greatest Tool



**Abstract:** According to [www.answers.com](http://www.answers.com), a breathalyzer is a trademark used for a device that detects and measures alcohol in expired air so as to determine the concentration of alcohol in a person's blood. Furthermore, using Beer's law, the spectrophotometer can relate concentration to absorbance levels of the chromium ion. The amount of alcohol present is proportional to the stoichiometric coefficients. An actual breathalyzer only needs to detect 25 micrograms of ethanol to give a reading 0.10 Blood Alcohol Level.

This presentation is part of the requirements of Honor Chemistry 127.

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**Student:** Gena Connelly  
**Faculty:** Dr. Jun Shin  
**Department:** Chemistry  
**Presentation Form:** Power Point  
**Topic:** Stem Cells

**Abstract:** In the face of extraordinary advances in the prevention, diagnosis and treatment of human diseases, devastating illnesses such as certain cancers, heart disease and Alzheimer's, continue to deprive people of healthy and independent lifestyles. Research in human developmental biology has led to the discovery of human stem cells. Stem cells have the remarkable potential to develop into many different cell types in the body.

This presentation is a part of the requirements of Honors Chemistry 127.

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**Student:** Tara Dunleavy  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Ethanol *Drinking Alcohol*



**Abstract:** In my presentation I will discuss the chemical properties, physical properties of ethanol, its uses, short and long-term effects, as well as how it is produced and the reactions it undergoes.

This is part of the course obligation for Honors CH-121.

**Student:** Tiffany Giannone  
**Faculty:** Dr. Jun Shin  
**Department:** Chemistry  
**Presentation form:** PowerPoint  
**Topic:** Green House Effect- an Atmosphere in which  
We Are Absorbing and Emitting Infrared Radiation

**Abstract:** Earth's steady temperature has been absorbing and emitting infrared radiation within the past years. Present greenhouse gases such as water vapor, carbon dioxide, and methane have been found present within the atmosphere as a result from temperature decrease and are radiating thermal infrared in all directions. As an effect, such gases trap heat within the surface-troposphere system and create such effects like global warming which has become a global threat of the Earth's drastic temperature trend and lower atmosphere. Although it is believed to be a result from human's increased concentration of these gases within the atmosphere, how this effect is harmful on living things will be discussed in this presentation.

This presentation is a part of the requirements of Honors Chemistry 127.

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**Student:** Junior Gonzales  
**Faculty:** Dr. Shaun MacMahon (FDA), Dr. Jack Lohne (FDA), Dr. Paris Svoronos  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** A Liquid Chromatography-Tandem Mass Spectrometry  
Method for the Detection of Nitrofurantoin Metabolites in Shrimp

**Abstract:** This is a modification of the method developed by the U.S. Food and Drug Administration (FDA) Center for Veterinary Medicine (CVM) previously validated for determining nitrofurantoin metabolites in shrimp. The method was modified to allow one person to complete one sample extraction (consisting of 12 subs, 1 negative control and 1 spike) in one day without sacrificing the reliability of the method to provide accurate results in the 1 ng/g (ppb) range for shrimp. Residues were extracted from tissues with 0.125 M hydrochloric acid and derivatized with 2-nitrobenzaldehyde (2-NBA). After pH adjustment, the samples were washed with hexane and isolated by partitioning into ethyl acetate. Extracts were analyzed by liquid chromatography with tandem mass spectrometry (LC-MS/MS) using atmospheric pressure chemical ionization (APCI). The method was validated with shrimp fortified at 0.5-3.0 ng/g (ppb). Average recoveries of the nitrofurantoin metabolites were 99.7% (10.1% RSD) for 1-aminohydantoin (AH), 98.0% (10.4% RSD) for 3-amino-2-oxazolidinone (AOZ), 94.8% (15.5% RSD) for semicarbazide (SC) and 98.7% (14.5% RSD) for 3-amino-5-morpholinomethyl-2-oxazolidinone (AMOZ).

This project is associated with taking the CH-904/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Junior Gonzales  
**Faculty:** Dr. Gopal Subramaniam, Dr. Jun Shin  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Ionization Constant of Carboxylic Acids Using Low-Field NMR

**Abstract:** Using Anasazi EFT 60 MHz FT-NMR and non-deuterated solvents, we introduced a new laboratory experiment for our undergraduate organic chemistry students for the determination of the pKa of monocarboxylic acids. This was achieved by running 1D  $^{13}\text{C}$  NMR spectra on concentrated aqueous solutions of the carboxylic acids with ethanol as an internal reference. Carboxylic acids were dissolved in appropriate amounts of HCl or NaOH to obtain the pH range necessary to cover the pKa of the acid. Students ran the  $^{13}\text{C}$  NMR of these samples and obtained the chemical shift data necessary for calculating the pKa of the acids. This method complements other known methods for determining the pKa of monocarboxylic acids, but is a useful teaching tool for introducing NMR techniques in the laboratory at the sophomore level and at a low cost.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Esther Kim  
**Faculty:** Dr. Soraya Svoronos, Dr. Paris Svoronos,  
Mr. Pedro Irigoyen  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Use of the Folin-Ciocalteu spectrophotometric Method to Determine the Total Phenol Content in Dry Tea Leaves

**Abstract:** The existence of polyphenolic compounds and their antioxidant properties in beverages is well documented. The Folin-Ciocalteu reagent micromethod uses visible spectrophotometry to determine the total phenol content in commercially available teas. Gallic acid is used as the calibration standard since its response toward the reagent has been shown to be equivalent to most phenolics. The results are presented as the Gallic Acid Equivalent also known as GAE.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.



**Green Tea Extract  
(Camellia Sinensis)**

**Student:** Edith Kufeji  
**Faculty:** Dr. Jun Shin  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Chickenpox

**Abstract:** Chickenpox, caused by varicella-zoster virus, is a common infection of childhood, especially in developing countries, where immunization coverage is low. Fifty percent of children are infected by 5 years of age and 90% by 12 years of age. Though the disease usually is benign, vaccination not only protects vaccinated persons, it also reduces the risk for exposure in the community for persons unable to be vaccinated because of illness or other conditions, including those who may be at greater risk for severe diseases. In severe infections life threatening complications may develop. Deep vein thrombosis and spreading infective necrotizing fascitis are very rare complications of this disease. The most common late complication of chickenpox is shingles caused by reactivation of the varicella zoster virus decades after the initial episode of chickenpox. I will explore the data on the efficacy of chickenpox and discuss the fundamentals of this disease and also explain how chickenpox can be cured as well as the “do’s and don’ts” of this disease.

This presentation is part of the requirements of Honor Chemistry 127.

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**Student:** Esther Lee  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** Power point  
**Topic:** Anti-Aging Products and Prevention

**Abstract:** I will be doing a presentation on anti-aging products, a rather profitable sector of applied chemistry in the beauty industry. In addition to generally informing the audience of the latest in anti-aging and prevention, I will also discuss the ingredients that reverse the effects of aging in such products.

This is part of the course obligation for Honors CH 121.

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**Student:** Fatima Morales  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Air Pollution

**Abstract:** Air pollution is a very serious topic as is it effects our lives in many ways. There is excessive use of carbon compounds. Gasoline and other greenhouse gases responsible for global warming will be discussed in this presentation.

This is part of the course obligation for Honors CH-121.



**Student:** Talar Najjarian  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint Presentation  
**Topic:** Physical Properties of Pure Water

**Abstract:** Water is the most abundant chemical substance on the surface of the earth. In this presentation physical and chemical properties of water, adhesion properties and its use as a universal solvent will be discussed.



This is part of the course obligation for Honors CH-121.

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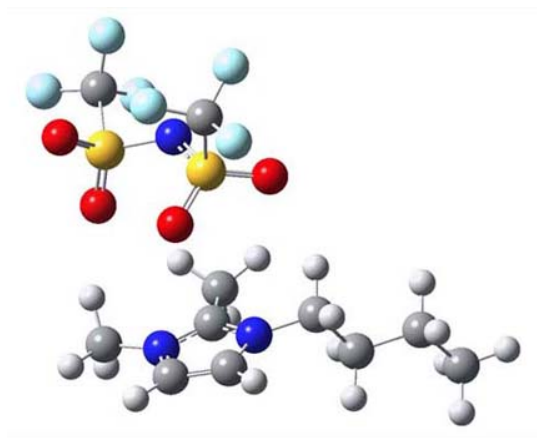
**Student:** Haimonti Paul  
**Faculty:** Dr. Jun Shin  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Water Cycle

**Abstract:** Water cycle is the movement of the water above and below the surface of the Earth. There is no ending in water cycle. It can change states among liquid, vapor, and ice at various places in the water cycle. The sun heats the water in the ocean. Then water evaporates as vapor in the air. Rising air current takes the vapor water into the atmosphere where cooler temperature causes it to condense into clouds. Air currents move the clouds all around the globe. The cloud grows over time, collides, and falls out of the sky as precipitation. The precipitation falls back into the ocean or into land where the precipitation falls over the ground and evaporates. Then it continues the same process again and again without ever ending. This presentation is part of the requirements of Honor Chemistry 127.

**Student:** Parsa Sharifi  
**Faculty:** Dr. James Wishart (Brookhaven Labs), Dr. Paris Svoronos  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Ionic Liquids and LEAF: Advanced Materials and Instrumentation for Energy Research

Ionic liquids are a new family of materials that have the potential for many uses. For example, they could be used for storing solar energy and reprocessing nuclear fuel while posing less of a burden on the environment. For this experiment, pulse radiolysis experiments were conducted at the BNL Laser Electron Accelerator Facility to observe reaction kinetics in an ionic liquid and measure rate constants for reaction of the solvated electron with pyridinium cations.

This project was part of the obligations associated with Honors Chemistry CH-902/905 in cooperation with the Office of Educational Programs and Chemistry Department at Brookhaven National Laboratory (January 2009).



**Student:** Panagiota Vittoris  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Uses of Baking Soda

**Abstract:** As a cleaning agent, baking soda is very effective and has been used for many years as a cleaning and scrubbing agent. The orange box is a must to have item in every household. It is also used to neutralize odors and to reduce heartburn.

This is part of the course obligation for Honors CH-120.

**MC - 28**  
**FOREIGN LANGUAGES & LITERATURES – Italian**

**Student:** Alieth Bejarano  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** An Unforgettable Vacation



**Mayan Pyramid**

**Abstract:** Student will describe, in Italian, a vacation she had in Cancun, Mexico. She will describe the places she visited such as the Mayan Pyramids, and the activities she participated in, including snorkeling. Pictures of the places will be shown and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Kristina Bodetti  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** *Watchmen*: A Film Review

**Abstract:** Student will present, in Italian, a review of the film *Watchmen* based on the homonymous comic book. Student will narrate the story, and describe the characters and how similar they are to those presented in the book. Pictures of the film and comic book will be presented and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Ka Ki Cheung  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** *Angeli e Demoni*: A Book Review

**Abstract:** Student will present, in Italian, a review of the book that has sparked her interest and love of Italian language and culture. The book, titled *Angeli e Demoni* is a thriller whose story unfolds among the mysterious places of Vatican City in Rome. Pictures of the places mentioned in the book will be presented and described.

This presentation is part of the requirements associated with LI112 Honors Italian.



**Student:** Maria Guerra  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Presentation Title:** An Imaginary Trip to Italy

**Abstract:** Student will present, in Italian, an imaginary family vacation in Italy. They will visit several touristy sites, and get acquainted with the Italian traditions and customs. They will try different foods, listen to different types of music, and meet new people. The imaginary tour guide “Paolo” will give the Guerra family some history of Italy and the sites they will be visiting. They will start off in Rome and travel throughout the country.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Ebony Hughley  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** Luciano Pavarotti: A Biography



**Abstract:** Student will present, in Italian, the biography of one of the most famous tenors of all times, Luciano Pavarotti. Student will highlight the most significant milestones in the Italian tenor’s life, from being an unknown young singer in the choir of his hometown to his greatest success in prestigious opera houses such as the MET in New York City, or “La Scala” in Milan, Italy. Pictures of some of his greatest performances will be shown and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** David Merino  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** A Memorable Vacation

**Abstract:** Student will describe, in Italian, a vacation he had in Canada. He will describe the places she visited such as the well-known Niagara Falls and the Wax Museum. Pictures of the places will be shown and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

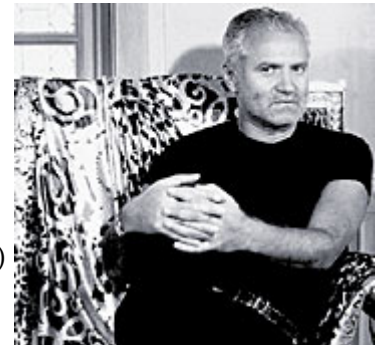
**Student:** Tanya Mignone  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** An Unforgettable Trip

**Abstract:** The student will describe, in Italian, a vacation she had in Salem, Massachusetts. She will describe the places she visited such as "The Salem Witch Museum", or "The Witch House". She will also mention the festival that takes place in Salem, and its historical significance. Pictures will be shown and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Vivian Ordoñez  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** Gianni Versace: A Biography



**Abstract:** Student will give, in Italian, an overview of Gianni Versace's life. Student will mention the most significant moments in the Italian fashion designer's career. Pictures of some of his creations will be shown and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Gretchen Palma  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** A Popular Italian Singer

**Abstract:** Student will present, in Italian, a brief biography of a famous Italian singer. She will highlight his accomplishments, downfalls, and major obstacles towards becoming a worldwide singer. Pictures and music will be presented and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

**Student:** Andrew Saenz  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/ PowerPoint  
**Topic:** My Father's Experience as an Italian Immigrant

**Abstract:** Student will narrate, in Italian, his father's experience coming to America as a 10 year-old boy and the difficulties he faced while trying to fit into the new world. Visual memories will be shared with the audience.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Anastasia Samaris  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/PowerPoint  
**Topic:** Italian and Greek Culinary Customs

**Abstract:** Student will compare the Italian and Greek culinary customs by describing the different meals of the day and how they relate to the cultures. Pictures of the most typical dishes of the two countries will be presented and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

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**Student:** Lily Tao  
**Faculty:** Dr. Maurizio Santoro  
**Department:** Foreign Languages and Literatures (Italian)  
**Presentation Form:** Lecture/ PowerPoint  
**Topic:** Italian and Chinese Culinary Customs

**Abstract:** Student will compare the Italian and Chinese culinary customs by describing the different meals of the day and how eaters act at the table. Pictures of the most typical dishes and dining areas of the two countries will be presented and described.

This presentation is part of the requirements associated with LI112 Honors Italian.

## Room MC-29

### FOREIGN LANGUAGES & LITERATURES - Chinese

**Student:** Vanessa Alva-Araya  
**Faculty:** Dr. Jenny (Maan) Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Poster board/Lecture  
**Topic:** My Story

**Abstract:** My presentation will consist of sharing key parts of my personal history. It will start with a brief description of myself today then lead into my family with a focus on my parents. I will discuss how their background has significantly influenced my perspective as a first-generation American. Following that, I will discuss my aspirations for the future. Finally, I will mention all the things I am truly grateful for and the things that inspire me to persevere every day. Included in my presentation is a poster illustrating all of the details mentioned above.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Wen Qin Chen  
**Faculty:** Professor Lan-Shiang Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Lecture in Chinese  
**Topic:** *Love Reading* by Yun Liang Li

**Abstract:** I will discuss the essay, *Love Reading* by Yun Liang Li, which tells about a wife's love for an old gentleman and her sympathy for her husband. For twenty years, the wife maintained communications with the old gentleman. They loved each other and have suffered in their feelings for one another. When the old gentleman passes away, she also passes away in her sorrow. On the other hand, the feeling that she held for her husband was sympathy. Due to her husband's sickness, she remained by his side to care for him- but did this only out of sympathy. Therefore, she buried her love for the old gentleman and hid love letters he wrote to her in a notebook. Only upon her death did her husband find out about the love that she and the old gentleman had shared. But her husband did not blame her because she took care of him for twenty years, and he thought that the care that she had for him was also love.

As a part of the requirements for LC312, "Readings in Contemporary Chinese Literature II," this presentation will be in Chinese.

**Student:** Jianing Guo  
**Faculty:** Professor Lan-Shiang Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Lecture in Chinese  
**Topic:** *Father's Illness* by Lu Xun

**Abstract:** In this presentation I will introduce a famous essay *Father's Illness* by Lu Xun, one of the most important short essay writers during the May Fourth Movement. The essay, "Father's Illness," portrayed the Chinese doctors in the olden days. These doctors used many techniques to heal people, although these techniques have never been proven useful by scientists. In the end, the patients spent the last of their money, but still died of illnesses.

As a part of the requirements for LC312, "Readings in Contemporary Chinese Literature II," this presentation will be in Chinese.

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**Student:** Merrick Hanse  
**Faculty:** Dr. Jenny (Maan) Lin  
**Department:** Foreign Languages and Literature (Chinese)  
**Presentation Form:** Poster Board/Lecture  
**Topic:** My Life

**Abstract:** In my presentation I will share my life in Mandarin. I will talk about my life growing up in Nashville, TN. I will also include my passion for learning Chinese and my plan to go to China this summer. I will show a collage of photos from my experiences and throughout my life.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Yi Hao  
**Faculty:** Professor Lan-Shiang Lin  
**Department:** Foreign Languages and Literatures  
**Presentation Form:** Lecture in Chinese  
**Topic:** *The Incision of the Belly* by Yun Liang Li

**Abstract:** The student will introduce the essay *The Incision of the Belly* written by Yun Liang Li. Yun Liang Li is a famous fiction writer in China who questioned whether health or wealth is the most important thing in one's life. In this article, a wife wants to have a better life with her husband, so she pushes her husband to leave their country and work in Australia. The husband doesn't want to leave his country but he submits to his wife's pleas in order to please her. After three years, he comes back with ten thousand dollars. The wife and husband are excited to meet again. At night, she is surprised to find a mark on his belly and questions him about it. The husband tells her the truth--- that he sold his kidney for ten thousand dollars because he didn't want to disappoint her.

As a part of the requirements for LC312, "Readings in Contemporary Chinese Literature II," this presentation will be in Chinese.



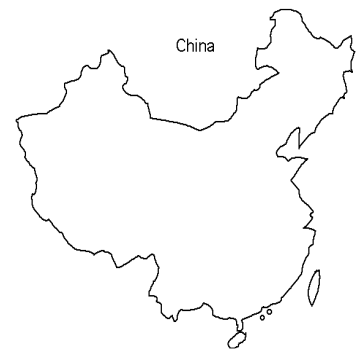
**Student:** Alex Kim  
**Faculty:** Dr. Jenny (Maan) Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** PowerPoint  
**Topic:** My Life

**Abstract:** In this presentation, I will talk about my life. I will talk about myself, my friends, and my family. I will use PowerPoint to show a photo collage. I will speak Mandarin throughout my presentation.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Hyun-Joung Kim  
**Faculty:** Dr. Jenny (Maan) Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** PowerPoint  
**Topic:** My Life



**Abstract:** In this presentation, I will first talk about my life in Korea. I will then talk about how I came to the United States and my life in the U.S.A. I will describe the hardship I went through as an immigrant. I will also use PowerPoint to show some pictures of my family both taken in Korea and in the United States.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Jong Yeol Ko  
**Faculty:** Dr. Jenny (Maan) Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Poster Board/Lecture  
**Topic:** My Life

**Abstract:** In this presentation, I will describe my life, in Mandarin, from the time when I came to the United States to the present. I will present a poster with photos to illustrate my presentation.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

**Student:** Sol Lee  
**Faculty:** Dr. Jenny (Maan) Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Poster Board/Lecture  
**Topic:** My Life

**Abstract:** I will do a presentation in Chinese describing my life. I will talk about my family, my friends, and my hobbies. I will also describe my hometown in Korea. In addition, I will compare my life in Korea with my life in the U.S. A poster will be included in my presentation.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Lin Han Ming  
**Faculty:** Professor Carol Chen-Shea  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Picture story and biography in Mandarin  
**Topic:** Jay Chou and His Career

**Abstract:** My presentation is going to be about the singer/actor Jay Chou. He is a Taiwan actor who has accomplished many obstacles during his careers. I will introduce who he is and the many songs and movies he was a part of.



**Jay Chou**

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Wing Sze Or  
**Faculty:** Professor Lan-Shiang Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Lecture in Chinese  
**Topic:** Zhang Kang Kang

**Abstract:** This presentation will introduce Zhang Kang Kang the Vice Chairman of the Chinese Writers Association in 2008. Over the past twenty years, she has created a number of valuable long and short stories. She also takes part in a lot of activities that promotes Chinese literature such as the new trend of network literature.

As a part of the requirements for LC312, "Readings in Contemporary Chinese Literature II," this presentation will be in Chinese.

**Student:** Wing Fei Phoo  
**Faculty:** Professor Lan-Shiang Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Lecture in Chinese  
**Topic:** *The Incision of the Belly* by Yun Liang Li

**Abstract:** This presentation will introduce a short story called *The Incision of the Belly*, written by Yun Liang Li, a famous professional scriptwriter and Communist Party member in China. During the period between 1977 and 1996, he wrote many great and successful movie scripts and short stories that were mostly based on the theme of the lives of young people that reflected this particular phases of their lives. In this chapter, he provided his perceptions of the significance between wealth and health, the value of romantic love and true love, and the differences between dedication and sacrifice.

As a part of the requirements for LC312, "Readings in Contemporary Chinese Literature II," this presentation will be in Chinese.

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**Student:** Jiang Xiao Yan  
**Faculty:** Professor Carol Chen-Shea  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Picture Story Spoken in Mandarin  
**Topic:** Andy Lau's Journey in the Entertainment Industry

**Andy Lau**



**Abstract:** My presentation, given in Mandarin, is about Andy Lau. He is a Hong Kong singer/actor who has been in the entertainment industry for many years. I will be discussing a brief biography of him, along with some of his famous songs and movies. I will also indicate a few other famous actors and actresses he has worked with.

This is a course assignment associated with taking a Chinese Honors contract for LC112.

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**Student:** Ning Zhang  
**Faculty:** Professor Lan-Shiang Lin  
**Department:** Foreign Languages and Literatures (Chinese)  
**Presentation Form:** Lecture in Chinese, Power Point presentation, and hand-out  
**Topic:** Five steps to analyze *The Incision of the Belly*

**Abstract:** I will discuss an essay from the textbook named *The Incision of the Belly* written by Yun Liang Li. I will analyze this article using the five steps. The five steps of analyzing an article are: the theme, the beginning, the plot development, the climax, and the ending. The theme is about the value of health versus wealth and its worth. The beginning introduces the relationship between the husband and wife, the two main characters, as well as the background story of the husband coming back from Australia. The plot development describes why and how the husband went to Australia and came back. The climax of this story is the last paragraph when the wife finds a scar on her husband's abdomen. Yet at the end, the story omits the wife's reaction to the scar. This suspense adds interest to the story.

As a part of the requirements for LC312, "Readings in Contemporary Chinese Literature II," this presentation will be in Chinese.

**MC – 30**  
**FOREIGN LANGUAGES & LITERATURES – Spanish**

**Student:** Christina Badal and Samanta Boursiquot  
**Faculty:** Dr. J. Ortiz-Griffin  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Display Board/Lecture  
**Topic:** Study of the Culture of Spain

**Abstract:** We will conduct an intensive study of the culture, geography, art, and literature of Spain. We will also discuss the type of government in Spain, the important products and the famous attractions of Spain.

This is a course assignment associated with taking a Spanish Honors contract for LS112.

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**Student:** Ramdai Chandrapaul  
**Faculty:** Professor Eladia Raya  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Lecture in Spanish/PowerPoint  
**Topic:** Mi Vida

**Abstract:** The student will introduce the audience to her life from birth to the present, highlighting her life as an immigrant, the challenges she has faced and her accomplishments in the USA.

This is a course assignment associated with taking a Spanish Honors contract for LS112.

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**Student:** Shani Martínez  
**Faculty:** Professor Eladia Raya  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Lecture in Spanish/PowerPoint/Pictures  
**Topic:** Mi Madre

**Abstract:** The student will introduce the audience to the life and accomplishments of her mother. She will also explain the reasons for her admiration and emulation of her mother's life achievements.

This is a course assignment associated with taking a Spanish Honors contract for LS112.

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**Student:** Daphne Neptune  
**Faculty:** Professor Eladia Raya  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Lecture in Spanish/PowerPoint  
**Topic:** Miguel Hidalgo

**Abstract:** The student will introduce the audience to the life, of Miguel Hidalgo, leader of the Mexican Independence Movement. The student will provide basic information about his biography, accompanied by a PowerPoint presentation.



*Miguel Hidalgo*

This is a course assignment associated with taking a Spanish Honors contract for LS112.

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**Student:** Hiroshi Okamoto  
**Faculty:** Professor Eladia Raya  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Lecture in Spanish/PowerPoint  
**Topic:** Mi Vida

**Abstract:** The student will introduce the audience to his life from birth to the present, highlighting his life as an international student in New York, the challenges and his accomplishments at QCC. The student will also describe his trips to Spain and South America.

This is a course assignment associated with taking a Spanish Honors contract for LS112.

## Borough of Manhattan Community College

**Student:** Maria Piedrahita  
**Faculty:** Dr. Hilario Barrero  
**Department:** Modern Languages  
**Presentation Form:** Written and Poster Presentations  
**Topic:** La mujer en el Poema de Mio Cid.  
(The woman in the Poem de Mio Cid)

**Abstract:** The main subject of my essay will be the socioeconomic status of women during the medieval times: dona Ximena, the Cid's wife and their daughters, doa Sol and doa Elvira. The paper will examine the role of dona Ximena as a wife and mother, her duties and her lack of freedom, as well as her total submission to her husband and her devotion to her daughters.

The paper is in Spanish, but there is a summary in English, and the presentation will be in English.

The paper is inspired by SPN-430-121, a course dealing with Medieval Literature taught by Professor Barrero.

**Student:** Aleksey Rubenov  
**Faculty:** Professor Eladia Raya  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Lecture in Spanish/Video presentation in Spanish/Pictures  
**Topic:** *Olivye*: Una Receta Rusa

**Abstract:** The student will demonstrate how to prepare his mother's Russian potato salad, called "Olivye". The student will also discuss the origin of the dish. The presentation will be accompanied by a video and pictures.

This is a course assignment associated with taking a Spanish Honors contract for LS112.

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**Student:** Satwattie Singh  
**Faculty:** Dr. Sharon Reeves  
**Department:** Foreign Languages and Literatures (Spanish)  
**Presentation Form:** Lecture in Spanish  
**Topic:** From Many Nations, One New Home: The Immigrant Experiences of Three Members of the QCC Community

**Abstract:** I will inform on the personal experiences of three members of the QCC community who immigrated to the United States from three different Spanish-speaking countries. My report is based on the interviews I conducted last semester with the following participants: one student, Ms. Kate Montero; one faculty member, Professor Rosa Gómez, the Department of Foreign Languages and Literatures; and one member of the administration, Dr. Eduardo J. Martí, President of QCC.

This is a course assignment associated with taking a Spanish Honors contract for LS112.

**MC - 31**  
**FOREIGN LANGUAGES – French & German**

**Student:** Treisha Amos  
**Faculty:** Dr. Anne-Marie Bourbon  
**Department:** Foreign Language and Literatures (French)  
**Presentation Form:** Poetry reading with PowerPoint enhancement  
**Topic:** *Les Colchiques* by Guillaume Apollinaire

**Abstract:** I will read the poem in French and provide an analysis of the piece.

This is a course assignment associated with taking a French Honors contract for LF112.

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**Student:** Francelis Amanda Berrios  
**Faculty:** Dr. Anne-Marie Bourbon  
**Department:** Foreign Language and Literatures (French)  
**Presentation Form:** Oral presentation with pictures  
**Topic:** My Family

**Abstract:** My project will be on members of my family. I will give a brief description of each family member, mention things such as their age, their personality, what they like or dislike, their hobbies, and occupations.

This is a course assignment associated with taking a French Honors contract for LF112.

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**Student:** Hamel Chandly Duplan  
**Faculty:** Dr. Anne-Marie Bourbon  
**Department:** Foreign Language and Literatures (French)  
**Presentation Form:** Oral presentation with PowerPoint enhancement  
**Topic:** The Eiffel Tower



**Abstract:** France is a very touristic place. Its culture, language and monuments have a big influence on the country's tourism. One cannot go to France without visiting Paris where one of the most visited monuments is the Eiffel Tower which will be the subject of my presentation.

This is a course assignment associated with taking a French Honors contract for LF112.

**Student:** Vladimir Ermant  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Language and Literatures (German)  
**Presentation Form:** Spoken Presentation with Visual Enhancement  
**Topic:** The Heiligenstadt Testament



**Abstract:** Written on October 6, 1802, the Heiligenstadt Testament, is one of the most emotional and personal of Ludwig van Beethoven records and letters. In the letter, Beethoven shares his immense despair over increasing deafness and the ambition to continue working. The testament is unique in that it reveals clues to Beethoven's true personality behind the seemingly uncontrollable public anger and violent behavior. I will read the letter in German and translate not only the direct meaning, but also try and capture the emotions behind the language.

This is a course assignment associated with taking a German Honors contract for LG112.

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**Student:** Rachel Hammer  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Presentation Form:** PowerPoint  
**Topic:** Great German Minds and the Present World

**Abstract:** The presenter will concentrate on some advances in technology, fuel and science all started by great German minds. These discoveries/inventions have changed the world we now live in, and we have come to depend on them at all times.

This is a course assignment associated with taking a German Honors contract for LG112.

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**Student:** Laura-Ann Herder  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Presentation Form:** PowerPoint  
**Topic:** German Idioms

**Abstract:** Popular and amusing German idioms, or colloquial sayings, will be explored and explained. The Presentation will include videos clips of the idioms being spoken. This will help the viewer get a real feel for the pronunciation, tone and inflection of each saying.

This is a course assignment associated with taking a German Honors contract for LG112.



**Student:** Michael Lorenz  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Presentation Form:** Lecture/Visual  
**Topic:** Famous German People



**Chancellor Angela Merkel**

**Abstract:** The student will talk about the following famous Germans from different areas: the writers Theodor Fontane and Thomas Mann; the politician Angela Merkel, the film director Reiner Werner Fassbinder and Harald zur Hausen, the 2008 Nobel Prize winner in Physiology/Medicine. He will show when and where they were born and what they are famous for.

This is a course assignment associated with taking a German Honors contract for LG112/LG123.

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**Student:** Maria Milazzo  
**Faculty:** Dr. Anne-Marie Bourbon  
**Department:** Foreign Languages and Literatures (French)  
**Presentation form:** Oral presentation with Poster enhancement  
**Topic:** My Life

**Abstract:** I will describe my life from the moment I was born, then as a child and a young adult. I will mention the changes I have made as an adolescent, my aspirations and my future.

This is a course assignment associated with taking a French Honors contract for LF112.

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**Student:** Paul Mori  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Language and Literatures (German)  
**Presentation Form:** PowerPoint  
**Topic:** Oktoberfest: Origins and Traditions



**Abstract:** The presenter will show attractions and statistics of the 175th Oktoberfest. It is one of the most traditional folk festivals celebrated annually in south Germany. King Ludwig I started the tradition when he invited all Bavarians to his wedding in 1810. In the last decades around 6 million visitors from around the world were welcomed annually by the Bavarians to the "Wies'n" in München to celebrated savoring weißwurst with local beer and pretzels while watching numerous concerts and parades of traditional costumes.

This is a course assignment associated with taking a German Honors contract for LG112.

**Student:** Paola Rodriguez  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Presentation Form:** Speech and Audio  
**Topic:** Johann Wolfgang von Goethe

**Abstract:** Description of Goethe's life and his influence of other artists of his time and world literature, description of his two greatest works; *The Sorrows of Young Werther* and *Doctor Faustus*, his influence in Romanticism and the Sturm und Drang Movement. Speech will include two Lieder (songs) with texts from poems by Goethe.



**Johann Wolfgang von Goethe**

This is a course assignment associated with taking a German Honors contract for LG112.

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**Student:** Jennifer M. Severin  
**Faculty:** Dr. Anne-Marie Bourbon  
**Department:** Foreign Language and Literatures (French)  
**Presentation Form:** Oral Presentation with PowerPoint enhancement  
**Topic:** French Impressionist Painter Claude Monet

**Abstract:** I will introduce the audience to Claude Monet by providing a brief synopsis of his life and will present some of his paintings. I will explain how I enjoy and appreciate his work.

This is a course assignment associated with taking a French Honors contract for LF112.



**Claude Monet**

**Student:** Donna Turian  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Presentation Form:** DVD  
**Topic:** Richard Wagner: The Musician, the Architect, and the Man

**Abstract:** The presenter, through her DVD presentation, supports Marcel Prawy's view: "Richard Wagner wurde am 22. Mai 1813 geboren und ist niemals gestorben". (Richard Wagner was born on May 22, 1813, and he never died.)

She highlights main narrative elements and exquisite music from Wagner's four-day, 17-hour opera, *Der Ring des Nibelungen*; shows how Wagner's *The Ride of the Valkyries* blazes in the 1979 epic war film *Apocalypse Now*; takes us on an intimate tour of the Bayreuth Festspielhaus which was built to Wagner's specifications; shares her personal experience of attending the 2008 Bayreuth Festival; and introduces us to some of Wagner's most ardent admirers and fiercest critics.



**Richard Wagner**

This is a course assignment associated with taking a German Honors contract for LG112.

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**Student:** Helen Yoon  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Topic:** The Life of Johann Sebastian Bach and the Influence of His Music



**Abstract:** The life and works of Johann Sebastian Bach has been widely known to the musical world. In this abstract, we explore the depths of his music and how his life not only influenced the music he wrote, but also how it changed the course of musical composition for future composers. In addition, there were political and demographic changes that have also shaped Bach's style of writing.

This is a course assignment associated with taking a German Honors contract for LG112.

**Student:** Jeffrey Urena  
**Faculty:** Dr. Anne-Marie Bourbon  
**Department:** Foreign Language and Literatures (French)  
**Presentation form:** Oral Presentation and enhancement with pictures  
**Topic:** Daphne Elizabeth Mateo

**Abstract:** I will introduce and describe my best friend to the audience. I will mention things such as her age, her nationality, where she lives, what she likes and dislikes, her hobbies, occupation and everything pertaining to her personality and our friendship.

This is a course assignment associated with taking a French Honors contract for LF112.

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**Student:** David Zhang  
**Faculty:** Dr. Lorena B. Ellis  
**Department:** Foreign Languages and Literatures (German)  
**Presentation Form:** Lecture/Visual/Audio  
**Topic:** Der Nürburgring

**Abstract:** The history of the Nürburgring, Europe's most traditional and successful racetrack, from its inception in 1927 to the present day will be given. There will be discussion on present-day *Nordschleife* racing, as well as notable figures in the Nürburgring's racing history. The presenter will explain the different sections of the racetrack, as well as their racing characteristics. There will be depictions from which common drivers can tour The Ring and how tourists or non-race drivers can tour, or even race, on the track.

This is a course assignment associated with taking a German Honors contract for LG112.



### Der Nürburgring

*Translation of above signage: "DRIVE TO HELL"*

**MC-32**  
**FOREIGN LANGUAGES & LITERATURES**  
**Hebrew**

**Student:** Avraham Davidov  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Lecture  
**Topic:** Righteous Among the Nations



**Oskar Schindler**

**Abstract:** Throughout World War II, the Nazis were successful in committing one of the world's greatest genocides. They are responsible for the deaths of over 6 million Jews. Amongst these murderers, however, were righteous people that tried to save anyone whose life was in danger. These were people that risked their own lives to save another. It was a capital crime to assist a Jew in anyway. Yet, this did not stop people such as Oskar Schindler who spent all of his money and risked his own life to save Jews. At first Schindler looked to profit from the labor camps that the Jews were forced to work in to survive. Afterward Schindler started to feed the Jews with a substantial amount of food. He also spent all of his money to purchase Jews that were at risk of dying in concentration camps. To appreciate what he had done for the Jews, Yad Vashem, a Holocaust memorial center in Israel planted a tree in his name for his righteous deeds.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

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**Student:** Adam Friedman  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** PowerPoint  
**Topic:** Righteous Among the Nations



**Abstract:** Moshe Mandil was the proprietor of a photo shop in Yugoslavia when the Nazis struck in 1941. To protect his family, Moshe took them to the Kosovo province which was under Italian control, eventually moving to Tirana, Albania, a Muslim majority country. In Tirana, Moshe found one of his former apprentices, Neshad Prizerini, who invited Moshe and his family to stay at his house. After the Germans invaded Albania, Prizerini's apprentice, 17 year old Refik Veseli, suggested that the Mandils go to his parents house in Kruja, up in the mountains. There they stayed for the duration of the war. However, while the Mandils were at the Veselis, Refik's brother, Xhemal, brought three more Jews from Tirana. The Veselis were now sheltering seven Jews. At the end of the war, the Mandils returned to Yugoslavia and reopened their photo shop. Refik joined and lived with them to continue his apprenticeship until the Mandils immigrated to Israel. Besa, an Albanian word which means "to keep the promise," connotes trust, honor, and is an ideal held in the highest esteem in Albanian society. For Muslims to put their lives at risk to save Jews may seem counterintuitive, especially today, but the Veseli family of Kruja, Albania, demonstrated the true meaning of Besa, and humanity, by sheltering the Mandil family from the Nazis throughout the war, and thus earning the status of Righteous Among the Nations.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

**Student:** Chaya Goldman  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Lecture  
**Topic:** Righteous Gentiles

**Abstract:** It was the year of 1939, and World War II had begun already. During this time, my grandparents were living in Lublin, Poland, where my grandfather was running his store. One day, a Nazi soldier strolled into his store to buy appliances. When the Nazi was ready to pay, my grandfather asked for the exact price of the goods instead of asking for more or less. In those days, either you charged Nazi more money because they were rich or less money because you feared for your life. The Nazis was so impressed with my grandfather that he told him to take his family and run because the next day the Germans were invading Poland and making it Jew free. My grandfather went to his parents and begged them to leave with him and his wife, but they wouldn't listen. So he went to his in-laws, who happened to be rich, and he begged them to leave with him. They too said no but they offered to pay for the passageway out of Poland. My grandparents left with six other couples to cross the Russian border.

After many hard and bitter weeks they finally made it to the border. But they were stopped by the Russian police. The Russian police asked the six other couples, "Why are you coming to Russia?" "To help make Russia a better place," they replied. Then, the police turned to my grandparents and asked them the same question. Instead of giving the same answer, my grandfather told them that they were Jews running away from the Nazis. The Russian police took the six other couples and shot them in front of my grandparents. The Russian police sent my grandparents to work camps in Russia. Twice telling the truth had saved my grandparents lives. Without the honesty my grandfather showed, I would not be here today.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.



**Russian Work Camp**



**Student:** Natalie Grishayeva  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Essay  
**Topic:** Geulens liste, Andrée Geulen- Herscovici-Belgium

**Abstract:** A 20-year old school teacher, Andrée Geulen, worked in a Brussels school. The first time she was confronted with the persecution of Jews was when one of her students came into school with a yellow star on their clothes. Once she was faced with the discrimination of her students, she decided to act. She told all her students to wear aprons to school, in-order to cover the humiliating marking imposed on the Jews.

After meeting Ida Sterno, a Jewish member of the clandestine organization(Jewish defense committee), who needed a non-Jewish partner who can help her accompany Jewish children to their hiding places, Geulen became involved in helping to rescue Jews. Geulen received a code name-Claude Fournier. She was told that she had to move to the boarding school where she was teaching, and leave her parents' home. The Gaty de Gamont School was very involved in hiding Jewish children, and as a result 12 Jewish children were harbored at the school.

Geulen had become more involved after a raid in the school and warned all the students not to come to school. She had rented an apartment under a false name and shared it with Ida Sterno. Her contact with the rescue organization was maintained through secret post office boxes, located in an antique shop. For more than 2 years Andree had rescued children by moving them to Christian families or monasteries. She would visit them and make sure they were well taken care of. She would provide them with false names, but kept in memory their original names and addresses.

In May 1989 Andree was recognized as a Righteous among the Nations. Eighteen years later she came to visit Yad Vashem in the occasion of a conference of the hidden children of Belgium. She was awarded honorary citizenship of the State of Israel.



This is a course assignment associated with taking a Hebrew Honors contract for LH112.

**Left: Andrée Geulen,  
with two schoolchildren**

**Right: Andrée Geulen, today**



**Student:** Talia Kaykov  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Lecture in Hebrew  
**Topic:** Raoul Wallenberg

**Abstract:** Raoul Wallenberg was a Swedish diplomat who saved the lives of tens of thousands of Jews in Budapest during World War II. In the summer of 1944, the Jews of Budapest faced the daily threat of deportation. Over the course of three months, Wallenberg issued thousands of protective passports. He chased convoys of prisoners and confronted Hungarian and German guards—even Adolf Eichmann himself—to secure the release of Jews whom he claimed were under Swedish protection, and put some 15,000 Jews into 31 safe houses. After reporting to Soviet headquarters in Budapest on January 17, 1945, all trace of him was lost. Although the Soviets claimed that Wallenberg died in 1947, there have been many testimonies since then that have conflicted with this claim. *The Righteous Among the Nations* honor was awarded to Raoul Wallenberg in 1966.



Bundesarchiv, Bild 1011-880-8285A-08  
Foto: Faupel | Oktober 1944

This is a course assignment associated with taking a Hebrew Honors contract for LH112.



**Student:** Sara Kazarnovsky  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Lecture  
**Topic:** The Righteous Among the Nations



**Abstract:** During the Holocaust, policemen were forced to round up Jews and deport them to their death. We know of only a couple of cases where policemen resisted these orders. On March 9, 1943 the military police – Marachaussee in Grootegast refused to obey an order they had been given to arrest the remaining Jews in the area. They were initially pressured - then they were threatened to be sent to concentration camps. They still refused and were taken to Vught.

One policeman by the name of Henk Drogd managed to escape the arrest. He was on the wanted list and had to live underground. He helped Jews in hiding and participated in many resistance operations. He was caught in August 1943, put on trial and sentenced to death. He was executed on April 14, 1944 at the very young age of 24 yrs old. Henk Drogd was willing to sacrifice his life rather than compromise his values and participate in the murder of Jews!

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

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**Name:** Leigh Merrill  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Essay  
**Topic:** Visas to Japan, Chiune Siempo Sugihara, Japan

**Abstract:** Chiune Siempo Sugihara from Japan was appointed Japanese Consul and helped save many Jews in June of 1941. He tried to get permission to get visas for the Jews to leave Lithuania at the time when the Germans came into power. Upon having his efforts declined, he went and issued them and stamped them himself. Upon returning to Japan, he was fired due to insubordination as consul. Thereon, he was forced to work odd jobs. His actions, however, saved many Jews in Lithuania from being killed by the Nazis.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.



**Student:** Diana Raphael  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Lecture  
**Topic:** Two Bulgarian Clergymen Named as Righteous Among the Nations for Saving Jews during the Holocaust

**Abstract:** As Jews were being deported from their countries throughout Europe, two righteous gentiles from Bulgaria helped save many Jews from deportation and ultimately death. These two gentiles, Metropolitan Stephan and Metropolitan Kiril, were high-ranking clergymen within the Bulgarian church. Metropolitan Stephan was the highest-ranking Bulgarian church official at the time of the Holocaust and Metropolitan Kiril was the head of the church in the city of Plovdiv. When edicts were passed by the king to deport the Jews of Bulgaria, Metropolitan Stephan and Metropolitan Kiril, along with other clergy members, vehemently opposed these edicts and petitioned King Boris III and Parliament to stop deportation. Every time a German directive was passed to deport the Jews Metropolitan Stephan stalled it and eventually none of the Bulgarian Jews were deported.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

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**Student:** Vyacheslav (Steve) Aminov  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Language and Literatures (Hebrew)  
**Presentation Form:** Lecture  
**Topic:** Righteous People Among the Nations - Raoul Wallenberg

**Abstract:** As Nazi Germany increased its anti-Jewish policy, rising numbers of Jews were determined to flee and to seek ways to emigrate. Long lines of fraught people seeking visas would form in front of foreign consulates, but the free world was unwilling to allow entry of the many refugees. Most diplomats continued to use regular actions in such an extraordinary period; only a few proved to be an exception and confront the refugees' troubles. Only a few were willing to act against their government's policy and instructions and suffer the consequences. One of those righteous people was Raoul Wallenberg. His heroic efforts during the time of the Holocaust were truly beyond belief. Raoul Wallenberg is recognized with saving the thousands of lives of Jews who were taken into Hitler's concentration camps during World War II. His commitment and privileged Swedish heroism earned him his credit that we acknowledge today.

At the end of June 1944, Raoul Wallenberg was appointed as secretary at the Swedish legation in Budapest with a mission to start a rescue operation for the Jews. Wallenberg made sure he would not get caught in the protocol and paperwork bureaucracy of diplomacy. So he demanded full authorization to deal with whom he wanted without having to contact the ambassador first. To begin with his new power, Wallenberg only had permission to issue 1,500 passes. He managed to negotiate 1,000, and through promises and empty threats to the Hungarian foreign ministry, he eventually managed to raise the proportion to 4,500 protective passes. Thanks to Wallenberg's efforts, the Jews didn't have to wear that degrading yellow star.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

**Student:** Andrea Zion  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** Lecture  
**Topic:** Shelter for a Little Girl, Milena Herbenova, Czech Republic

**Abstract:** When Eva Novotna was three months old, the Germans occupied Bohemia and Moravia. In 1941, both parents were arrested because they were staunch communists. Eva's father committed suicide. The mother was released, but was arrested again in 1942 and sent to Auschwitz. Four-year old Eva had no parents and moved from place to place.

Milena Herbenova took care of the little girl as if she were her own. Milena's husband had also been arrested and sent to Sachsenhausen Concentration Camp. Having Eva in her possession enhanced their chances of being in danger. Milena also had a son of her own. Since Eva couldn't go to school, Milena brought private tutors to the house to teach her. When Eva's mother returned, she was delighted to see her daughter in healthy and good condition. On December 3, 2003 Milena Herbenova was recognized as Righteous Among the Nations by Yad Vashem.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

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**Student:** Temira Zwiren  
**Faculty:** Dr. Amalia Rechtman  
**Department:** Foreign Languages and Literatures (Hebrew)  
**Presentation Form:** PowerPoint  
**Topic:** Righteous Gentiles



**Abstract:** Waitstill Sharp, a minister, and his wife Martha, were sponsored by a Unitarian church to take part in a mission to Czechoslovakia to help Jews escape the Holocaust. In February of 1939, they arrived in Prague with \$28,000 in aid money. Over the next six months, they used their assets to get Jewish refugees out of Prague. Nazis entered Prague in March 1939. They helped people get visas, as well as jobs they needed to obtain before receiving the visas in August 1939. They returned to America not knowing they had escaped capture by one day. Ten months after the Sharps returned to Europe. This time Lisbon was the main focus for the refugees in France. In France they helped the famous author Lion Feuchtwanger escape. They forged identity cards for the Feuchtwangers and eventually had them get on a boat to New York. Martha gave up her own ticket back to the USA for the couple. They got 29 children out of France as part of the Kinder Transport. By the end of 1940, the two of them saved 2,000 people from the Nazis.

This is a course assignment associated with taking a Hebrew Honors contract for LH112.

**MC-33**  
**MUSIC, SOCIAL SCIENCES,**  
**SPEECH COMMUNICATION & THEATRE ARTS**

**New York City College of Technology**

**Student:** Ashley Alioto  
**Faculty:** Professor Joy Sanlofer & Professor Louise Hoffman  
**Department:** Hospitality Management  
**Presentation Form:** Lecture  
**Topic:** The Evolution of Confectionery

**Abstract:** As an ever-changing form of expression, art influences the development of future art forms. My research paper will examine the effect that the fine arts from classical to modern movements had on the formation of confectionery as a form of art. This framework will analyze style changes in neoclassical art and art nouveau while focusing on comparing technique and structure, color scheme and subject matter within confectionery and the fine arts. In addition, this paper will study the impact the progression of society, technology and enlightened thinking had on the transition of styles between these two art forms.

**LaGuardia Community College**

**Student:** Tina Byrne  
**Faculty:** Dr. Solomon Kone  
**Department:** Economics  
**Presentation Form:** PowerPoint  
**Topic:** The Green Economy: Innovation and Investment in Our Past, Present and Future

**Abstract:** Green Economy: what does it mean? I am certain we have completely exhausted these two words as of late, however, large investments in alternative energy will bolster this recession into recovery. We will briefly take a look at the U.S auto industry; not only is their innovation crucial for their survival, but it is imperative to ours. How much is allocated in the new budget? What does this mean for the job market? I would like to provide some insight in this presentation for those of us who may be overwhelmed or uncertain as to what the outcome of our current economic climate will be. It is time to shift gears, and this is one direction.

**Student:** Carl Degmayr  
**Faculty:** Professor Eileen White  
**Department:** Speech Communication & Theatre Arts  
**Presentation Form:** Oral Presentation with Video Clips  
**Topic:** To Be Fair or Not to Be Fair: The Fairness Doctrine in Modern Media

**Abstract:** The student will give an historical overview of the history and significance of the Fairness Doctrine in television, as well as an analysis of its effectiveness and the recent debate whether or not it should be re-instated.

This is a course assignment associated with taking an Honors Contracts in SP475.

## New York City College of Technology

**Student:** Iman Farraj  
**Faculty:** Professor Niloufar Haque  
**Department:** Biological Sciences  
**Presentation Form:** Lecture  
**Topic:** Learning, Memory and Behavioral Patterns

**Abstract:** Learning, memory and behavioral patterns are three components that play a significant role in the Peer-Led Team Learning workshops. It helps students to grasp information and make significant use for it in the future. For knowledge to be absolutely understood and retained, it must be tied to something previously learned. One's previous knowledge and experiences reinforce one another and can be linked to enhance the learning process. We learn at our best when we have positive feelings, attitudes and social interaction about the new task when it is proposed in the right way. Workshop leaders provide additional practice with the material and encouraging learning conditions that are established in the workshop. Furthermore, the exercise modules reduce nervousness and motivate the students to help them focus and succeed in their course work. Details of learning patterns, formation of an association with recall and its ultimate role in behavioral patterns will be discussed at the conference.

**Student:** Eugene Green  
**Faculty:** Professor Eileen White  
**Department:** Speech Communication & Theatre Arts  
**Presentation Form:** PowerPoint  
**Topic:** Net Neutrality

**Abstract:** The Internet is the great equalizer but what would happen if phone and cable companies get their way and begin to charge for access based on usage? The student will cover the fundamentals of Net Neutrality and the implications of metered bandwidth on access and freedom.

This is a course assignment associated with taking an Honors Contracts in SP475.

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**Student:** Marvin Lassiter  
**Faculty:** Professor Eileen White  
**Department:** Speech Communication & Theatre Arts  
**Presentation Form:** PowerPoint  
**Topic:** The Cinema of Danny Boyle



**Abstract:** From Credited with reviving British Cinema, updating the zombie genre and bringing Bollywood into Western mainstream cinema, director Danny Boyle has become a formidable influence in film today. With clips from such films as *Trainspotting*, *Sunshine*, *28 Days Later* and *Slumdog Millionaire*, this student's presentation will explore his unique method of storytelling and its influence on film today.

This is a course assignment associated with taking an Honors Contracts in SP475.



**From Left to Right:**  
**Danny Boyle, Freida Pinto & Dev Patel**

**Student:** Christina Roberts  
**Faculty:** Professor Eileen White  
**Department:** Speech Communication & Theatre Arts  
**Presentation Form:** PowerPoint  
**Topic:** Nothing is as it Seems: Subliminal Messaging

**Abstract:** No one likes to be manipulated, but are we influenced on a daily basis by things we are not aware of? This student's presentation will explore the history and theories behind subliminal visual and auditory messages in media.



This is a course assignment associated with taking an Honors Contracts in SP475.

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**Student:** Kunal Singh  
**Faculty:** Dr. Joanne Chang  
**Department:** Music  
**Presentation Form:** Composition and Performance  
**Topic:** Music Theory Applied to Modern Music

**Abstract:** The student will perform two compositions using the same melody line in two very different genres. The student will apply and integrate secondary leading tons and classical resolving patterns while combining 20<sup>th</sup> century motifs, classical analysis and jazz theory. This will be displayed in a 12-bar jazz ballad including improvisation, and a Rondo in ABACABA form.

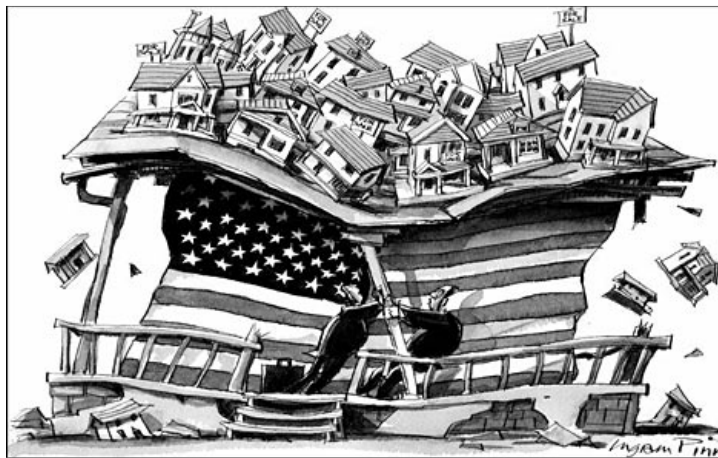
This presentation will be accompanied by pianist Yoichi Uzeki.

This is a course assignment associated with taking an Honors Contracts in MU243.



**Student:** Keable Wallace  
**Faculty:** Dr. Pellegrino Manfra  
**Department:** Social Sciences (Economics)  
**Presentation Form:** Lecture  
**Topic:** An Analysis of the Current Global Financial Crisis

**Abstract:** There are many reasons for the current global financial crisis. I will examine the bubble in the real estate market, how it originated in the US and spread to the rest of the world; the low interest rate policy of the FED, the policy of the U.S. government to extend mortgages to low income families, and the issues of derivatives by banks. These are some of the issues I will examine in my presentation.



**Student:** Heather E. Wigley  
**Faculty:** Dr. Jeffrey Jankowski  
**Department:** Social Sciences  
**Presentation Form:** Lecture  
**Topic:** Child Development



**Abstract:** My Honors Contract will focus on motor development in infants. I will start by introducing how typical motor development occurs through crawling and walking. Next, I will describe dynamic systems theory because it provides a basis to understand early motor development. A large portion of my research will also focus on cross-cultural studies to investigate how culture influences motor ability. Then, a discussion will follow concerning how this project has strengthened my understanding of occupational therapy - my career choice. I will conclude by discussing a proposal and description of future research.

This presentation fulfills part of the requirement associated with taking an Honors Contract for SS515.



## MC – 41, ENGLISH

**Student:** Bianca DeMars  
**Faculty:** Dr. Bill Marsh  
**Dept:** English  
**Presentation:** Discussion, with book  
**Topic:** An Exhibition of Identity through Poetry

**Abstract:** One's identity, defined as "the fact of being who or what a person or thing is," is a product of environment, time, experience, and genetics. Throughout existence, these elements influence our being in different ways, sometimes one being more prevalent than another in the evolution of self. *The Great Scar & Other Works* is a collection of poems--each one written to serve as an exhibition of these influences at work. These poems are the creations of one identity; however, each poem reflects a different piece of the source. *The Great Scar & Other Works* demonstrates the exploration of identity and its manifestation interiorly and exteriorly.

This presentation is part of the requirements associated with taking an Honors Contract for EN102.

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**Student:** Maria Gabaldon  
**Faculty:** Dr. Trikartaningsih Byas  
**Department:** English  
**Presentation Form:** PowerPoint  
**Topic:** Hispanic Community

**Abstract:** This presentation is going to focus on the Hispanic Community in the US, and the challenge they are facing. It will start by discussing their deep religious beliefs which has been in the Hispanic Community for a very long time and which has influenced the way they adjust to their new living situation; in some instances it has provided them with great comfort. Then it will highlight the health problems associated with the changes in their lives which in some cases lead to a dramatic new way of facing life. Finally, it will discuss the political and social difficulties of coming to a foreign country that can lead to collapse or success.

This presentation is a part of the requirements associated with taking an Honors Contract in EN225.

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**Students:** Michelle Garcia and Ashley Zilkha  
**Faculty:** Dr. Andrew Levy  
**Department:** English  
**Presentation Form:** PowerPoint  
**Topic:** A Global Disaster



**Fragmenting Glacier**

**Abstract:** Studies show that global warming in the 21st century is likely to accelerate at a much faster pace and cause more environmental damage than earlier predicted. People tend to believe that the earth is too big and that mankind cannot have any long-term impact on the earth's environment. We will focus on the effect global warming has on glaciers and the consequences of glacier melt on human civilization and natural eco-systems today, as well as the effects it may bring in the next half century.

This presentation is part of the requirements associated with taking an Honors Contract for EN102.

**Student:** William Giron  
**Faculty:** Dr. Bill Marsh  
**Department:** English  
**Presentation Form:** Lecture  
**Topic:** Science, Art, and Literature: The Foundations of a New Society

**Abstract:** The presentation will discuss the reconciliation between Science, Fine Art, and Literature for the purpose of forming a new society through a more practical and alternative form of social development. The presentation will explore different philosophies as the foundation for artistic and scientific thought geared towards the improvement of government and everyday life through more practical means. I will also focus on societies that have successfully used art and science for the betterment of humanity as a whole.

This presentation is part of the requirements associated with taking an Honors Contract for EN102.

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**Student:** Brandon Jean-Pierre  
**Faculty:** Dr. Sheena Gillespie  
**Department:** English  
**Format:** Lecture  
**Topic:** Gender Roles in Poetry

**Abstract:** I will explore the portrayal of gender roles in my own poetry ranging from traditional domains (women in the kitchen and men in the outside world of work) to more contemporary revisions of the changing roles of men and women including "Mr. Mom."

This presentation is part of the requirements associated with taking an Honors Contract for EN815.

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**Students:** Esther Lee and Aisha Qadeer  
**Faculty:** Dr. Sheena Gillespie  
**Department:** English  
**Presentation Form:** PowerPoint  
**Topic:** Women's Fashion (19th to 20th c.)



**Abstract:** I will be exploring paradoxes of western women's fashion and interpreting the attitudes reflected in it throughout the 19<sup>th</sup> through 20<sup>th</sup> centuries. In one sense, fashion was a means of oppression where women were strictly objects of sexual appeal and/or subjected to extreme discomfort to cater to beauty standards. Yet, in another, it was a form of empowerment, one of the few creative outlets given to women in the past, and eventually clothing brought status as well. I will relate this to fashion in today's society.

This presentation is part of the requirements associated with taking an Honors Contract for EN815.

**Student:** Patricia Miranda and Vanessa Verdugo  
**Faculty:** Dr. Bill Marsh  
**Department:** English  
**Presentation Form:** Lecture (with print documents)  
**Topic:** Class Anthology Project

**Abstract:** This panel will showcase the results of a literary anthology project completed in English 102, Introduction to Literature, in spring 2009. The co-presenters will describe the project and discuss their experiences as editorial agents responsible for compiling and producing this collaborative, student-generated anthology.

This presentation is part of the requirements associated with taking an Honors Contract for EN815.

### LaGuardia Community College

**Student:** Paola Patino  
**Faculty:** Dr. Phyllis Van Slyck  
**Presentation Form:** Lecture  
**Department:** English  
**Topic:** *Wuthering Heights*

**Abstract:** *Wuthering Heights* is a fascinating and rich gothic novel that conveys a series of themes that transcends time and space. I am planning to give a brief description of two of the major themes in the novel: culture versus nature and self-imprisonment. Emily Bronte's depiction of society as an invisible prison for humans' genuine feelings and desires brings to mind Rousseau's claim that "man is born free, but everywhere he is in chains." Bronte seemed to be deeply aware of the invisible chains that society is constantly imposing upon humans.

**Students:** Florince Payen & Paola A. Mayen  
**Faculty:** Dr. Sheena Gillespie  
**Department:** English  
**Presentation Form:** Lecture  
**Topic:** How Cultures Affect the Way Women View Themselves

We will discuss how women in American and Arabic cultures have been influenced by religious beliefs and moral values triggered by feminist movements in their respective countries. We will focus on how these women differ in their thinking and in how they view themselves.

This presentation is part of the requirements associated with taking an Honors Contract for EN815.

**Student:** Yedeeta Smith  
**Faculty:** Dr. Sheena Gillespie  
**Department:** English  
**Presentation Form:** PowerPoint  
**Topic:** Social Roles of African American Women During the Early 20<sup>th</sup> Century  
 (Using Alice Walker's *The Color Purple* as a Reference) and  
 How They Paved the Way for African American Women Today

**Abstract:** Black women in America have been oppressed for centuries. Even after the Civil War, marking the end of slavery, these women suffered tremendously at the hands of their own people. I will discuss social issues of the late 19<sup>th</sup>/early 20<sup>th</sup> century while also using *The Color Purple*, written by Alice Walker in 1982, as a reference. The three key characters of the story that I will be discussing are Celie, Shug Avery, and Sophia. Even though they are all very different, their struggle for independence is what they have in common.



**Alice Walker, Author**  
**Pulitzer Prize for Fiction**  
**1983**

This presentation is part of the requirements associated with taking an Honors Contract for EN815.

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**Student:** Reese Thompson  
**Faculty:** Dr. Bill Marsh  
**Department:** English  
**Presentation Form:** Lecture (with print documents)  
**Topic:** The Role of Poetry in the Middle East Conflict

**Abstract:** The role of the Poet in any society is often elevated in relation to the existential threat posed against that society's way of life. The long history of poets imprisoned and/or exiled for expressing their views is a testament to the perceived threat poetry has on repressive governments. My presentation will attempt to look at the relation between poetry and the political as it applies to the conflict in the Middle East. Citing examples from Amichai, Darwish, and Adonis, I will attempt to illustrate how an existential threat contributes to the prominent role of the Poet in these societies.

This presentation is part of the requirements associated taking with an Honors Contract for EN102.



**From Left to Right:**  
**Yehuda Amichai, Mahmoud Darwish, and Adonis**

## M-131 CHEMISTRY

**Student:** Tresa Ambooken  
**Faculty:** Dr. Luis Vargas  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Reactivity of Tris(trimethylsilyl)Phosphite (TMSP):  
Reaction with haloformates and halothionoformates

**Abstract:** Reactions of TMSP with haloformates containing C=O and C=S groups were studied. Phenyl chloroformate and o-phenyl chlorothionoformate were reacted with TMSP at different reaction conditions. The results will be discussed.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Samanta Boursiquot  
**Faculty:** Dr. Sharon Lall-Ramnarine  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Synthesis of Imidazole and Pyrrolidine Containing  
Ionic Liquids for Biodegradation Studies

**Abstract:** Ionic liquids are now commonly used in academic and industrial laboratories. Hence it is important to study their effect on individuals and the environment. The purpose of this project is to synthesize ionic liquids containing imidazole and pyrrolidine with ether and hydroxyl substituents and to study their biodegradation by soil microorganisms with scientists at Brookhaven National Laboratory. Several salts were synthesized by reacting the amines 1-methylimidazole or N-methylpyrrolidine with the alkyl halides 3-chloro-1-propanol, 6-chloro-1-hexanol and 2-bromoethylethylether under reflux conditions in acetonitrile. The synthesis and characterization of the halide and phosphate salts will be discussed.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Ti Ya Chang  
**Faculty:** Dr. Jordan Verdis  
**Department:** Chemistry  
**Presentation Form:** Lecture  
**Topic:** Electrocyclic Reactions: Ab initio Studies of the Bergman Cyclization

**Abstract:** The transition state geometries and activation energies of the Bergman cyclization are calculated for a number of enediyne systems using different calculation methods and theory levels.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

### Borough of Manhattan Community College

**Student:** Angelene Elliott  
**Faculty:** Dr. Brahmadeo Dewprashad  
**Department:** Science  
**Topic:** Chemistry of Curcumin and New Synthetic Analogues

**Abstract:** Turmeric, an ingredient in curry, is reported to have antioxidant, anti-inflammatory, and anticarcinogenic properties. I intend to discuss the chemistry of the major active component of turmeric, curcumin, and its synthetic analogues. I will relate curcumin's organic chemistry to its biological activity. In addition, I will talk about the on-going search for a "supercurcumin", which includes new synthetic analogues of curcumin with enhanced medicinal properties.

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**Student:** Jacqueline R. Leser  
**Faculty Sponsor:** Dr. Brahmadeo Dewprashad  
**Department:** Science  
**Topic:** Are Everyday Plastics Dangerous to our Health?

**Abstract:** Exposure of Bisphenol A (BPA) has been linked to an increased risk of cardiovascular disease, diabetes, obesity, liver enzyme abnormalities, disrupted thyroid hormone activity and diminished development of sexual characteristic in males. The many physiologically toxic effects caused by BPA result from its structural similarity to the body's naturally produced estrogens. This presentation will discuss the use of Bisphenol A in plastic products and its potential harmful effects. The chemistry of Bisphenol A will be discussed and will be related to its known toxicity. In addition, approaches to replacing Bisphenol A in plastic products will be discussed.

**Student:** Waddah Guneid  
**Faculty:** Mr. Joseph Iorio, Mr. Bruce Montalbano, Dr. Irina Rutenburg,  
Mr. Gobind Vaswani  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Analysis of Milk Components

**Abstract:** Milk is one of the most common items in human diet, at least in the USA. Milk provides proteins, carbohydrates, fats, as well as other essential nutrients. We have been investigating various methods available in the literature for separation and characterization of milk components to choose the simplest and safest ones. Our objective is to modify and supplement these methods for incorporation into laboratory chemistry courses for Allied Health Professions and Consumers – giving these students the opportunity to learn and practice various basic techniques of analytical chemistry.

This project is associated with taking the CH-904/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Malamatenia Mavrou  
**Faculty:** Dr. Jordan Verdis  
**Department:** Chemistry  
**Presentation Form:** Lecture  
**Topic:** Isolation and Qualitative Characterization of DNA:  
An Undergraduate Laboratory Experiment

**Abstract:** An experimental procedure has been developed in which DNA from plant tissues is isolated and characterized using only general purpose chemicals, glassware and instrumentation found in the typical undergraduate organic chemistry laboratory. The use of electrophoresis equipment, specialized glassware or DNA staining compounds is avoided. After isolation, DNA can be characterized either intact or after hydrolysis to its component phosphate, carbohydrate and amine base moieties. A number of discretionary characterization procedures suitable to the timeframe of a laboratory session are described. These procedures incorporate spectroscopic, chromatographic and qualitative analytic techniques. The experiment is suitable for entry-level organic chemistry laboratory courses.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Tayyaba Nasar  
**Faculty:** Dr. Gopal Subramaniam, Dr. Jun Shin, Dr. Paris Svoronos,  
Mr. Pedro Irigoyen  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Microscale Freezing Point Depression Measurements:  
Using Van't Hoff Factor to Study the Extent of Dissociation

**Abstract:** The van't Hoff factor gives a measure of the extent of dissociation of ionizable compounds and can be calculated by measuring the depression in freezing point. Temperature changes were measured to the tenth of a decimal accurately by using modern temperature probes attached to computers and using a small amount of material – as low as 0.1 g. The study was made on the ionization constants of carboxylic acids like dichloroacetic, trichloroacetic, maleic and malonic acids and have been implemented in the undergraduate general chemistry laboratory. This method provides direct measurement of ionization constants of carboxylic acids at 0°C which are correlated to the reported values at 25°C. The methodology was also applied to measure the extent of dissociation in salts like NaCl, Na<sub>2</sub>SO<sub>4</sub>, etc. Freezing points of several compounds are possible in a single laboratory period because each measurement takes less than 5 minutes.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Firmause Payen  
**Faculty:** Dr. Sharon Lall-Ramnarine  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Synthesis Of 4-Dimethylaminopyridine (Dmap) and  
Diazabicyclo[2.2.2]Octane (Dabco)  
Containing Ionic Liquids for Biodegradation Studies

**Abstract:** Ionic liquids are popular choices as alternative solvents among researchers in many areas. It is therefore important to understand their effect on the environment in the event of a spill and to plan waste disposal. The goal of the current project is to synthesize ionic liquids based on Diazabicyclo[2.2.2]Octane (Dabco) and 4-Dimethylaminopyridine (Dmap) containing ether and hydroxyl functionalities and study their biodegradation by soil microorganisms. These salts were synthesized by reaction of the amines Dabco and pyridine with the alkyl halides 3-chloro-1-propanol, 6-chloro-1-hexanol and 2-bromoethylethylether under reflux conditions in acetonitrile or ethylacetate. The synthesis and characterization of the halide and phosphate salts will be reported.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.



**Student:** Rana Said  
**Faculty:** Dr. Soraya Svoronos, Dr. Paris Svoronos,  
Mr. Pedro Irigoyen  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Determination of Gallic Acid in Tea Beverages Using HPLC

**Abstract:** Gallic acid, a polyphenolic compound, is known for its antioxidant properties. The content of gallic acid in various tea beverages is measured and compared using High Pressure Liquid Chromatography. The advantages and disadvantages of this method are presented with emphasis on the potential interference of other antioxidants in these measurements.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Mousume Shaha  
**Faculty:** Dr. Luis Vargas  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Reactivity of Tris(trimethylsilyl)Phosphite (TMSP):  
Reaction with Haloformates and Halothionoformates Containing  
Electron-Withdrawing Groups

**Abstract:** Reactions of TMSP with haloformates containing C=O and C=S groups containing electron-withdrawing group were studied. 4-chlorophenyl chloroformate and 4-chlorophenyl chlorothionoformate were reacted with TMSP at different reaction conditions. The results will be discussed.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Rangina Wali  
**Faculty:** Dr. Soraya Svoronos, Dr. Paris Svoronos, Mr. Pedro Irigoyen  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Application of the Folin-Ciocalteu Micro-method to Determine the Total Phenol Content in Commercial Beverages

**Abstract:** Polyphenolic compounds are known antioxidants. Their determination has already been measured using a variety of reagents. This project uses the Folin-Ciocalteu reagent to determine, via visible spectrophotometry, the total phenol content in commercially available teas. Gallic acid has been used as the calibration standard as its response toward the reagent has been shown to be equivalent to most phenolics. The results are presented as the Gallic Acid Equivalent also known as GAE.

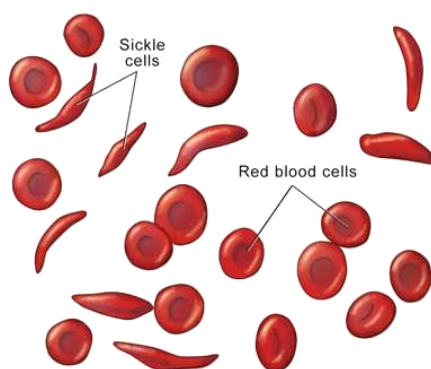
This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.



## M – 133, BIOLOGICAL SCIENCES & GEOLOGY

**Student:** Augustin Aguié  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Using Southern Blotting Technique as a Diagnostic Tool For Genetic Analysis of Sickle Cell Gene

**Abstract:** Advancement in biotechnology allows us to obtain DNA samples and test them for presence or absence of the Sickle cell gene. In U.S. about 8% of African Americans are carriers of Sickle cell anemia trait. A single nucleotide change in a DNA sequence can result in a mutated gene. This point mutation happens to be in a critical restriction site which makes the size of mutant and wildtype alleles different. In this project techniques like Restriction digest, gel electrophoresis and Southern Blotting are used to look for the homozygous normal, heterozygous carrier or homozygous recessive alleles.



This presentation is part of requirements associated with Honors BI453.

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**Student:** Muhammad Awan  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Sub-Cloning *GAL1* Promoter to Drive the Expression of Mammalian *Pkcα* Gene

**Abstract:** Hsp90 is a molecular chaperone essential to the folding, activation and maturation of small number of distinct client proteins. Elevated PKC $\alpha$  activity increases the motility of human breast and melanoma cells. We hypothesize that PKC $\alpha$  is a possible client protein of Hsp90. Our data indicates that mammalian PKC $\alpha$  overexpression in the *Saccharomyces* strain W303 significantly slows the growth rate. Overexpression was achieved using the constitutive GPD promoter carried by a yeast CEN vector. Consistent with this finding, transformants carrying the GPD - PKC $\alpha$  gene vary up to 3 times larger than normal. To study this phenotype further, mammalian PKC $\alpha$  will be expressed under control of the easily regulated *GAL1* promoter. Our project is to amplify the *GAL1* promoter sequence from plasmid pFJ44 (provided by J. Brodsky) and insert the resulting fragment into sites upstream of the triple HA-tagged PKC $\alpha$  ORF in plasmid p413, a CEN plasmid. This presentation is part of requirements associated with Honors BI453.

**Student:** Constantine Checa  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Understanding Recombinant DNA Technology, Expressing Jelly Fish Green Fluorescent Protein (GFP) In *E.Coli*

**Abstract:** Bioluminescent jelly fish *Aquorea Victoria* is the natural host of green fluorescent protein (GFP). This family of proteins has played a significant role in research from bacteria to cancer cell lines. Fluorescent proteins can be expressed in prokaryotic and eukaryotic cells. This experiment will show how we can fuse GFP protein (~65 amino acids) and use it as a tag to see the expression of our protein of interest. We will do bacterial transformation and observe the over-expression of our transformed gene. This presentation is part of requirements associated with Honors BI453.

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**Student:** Arifa Jesmeen  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Human DNA Typing by Variable Number of Tandem Repeat Analysis

**Abstract:** For humans, one VNTR known as D1S80, is present on Chromosome 1 and contains a 16 nucleotide sequence which is variably repeated 16 to 40 times. Individuals can be homozygous or heterozygous for this genotype. Amplification of DNA from different individuals will result in distinct PCR products. The objective of this experiment is to isolate DNA and compare DNA polymorphism between individuals by separating the products doing gel electrophoresis. This presentation is part of requirements associated with Honors BI453.

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**Student:** Tae Y. Kang  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Copper Surface-Mediated Toxicity Correlates with Membrane Lipid Peroxidation in *E.Coli*

**Abstract:** The mechanism(s) by which copper alloy surfaces kill microorganisms is still largely unclear. The aim of our project is to determine the relationship between exposure to copper alloy surfaces or copper ions, lipid peroxidation, and killing of *Escherichia coli*. We will also determine the relationship between membrane lipid peroxidation and plasma membrane structural integrity in *Escherichia coli*. Our data indicates a biphasic killing curve following addition of CuSO<sub>4</sub> to the growth medium in which the initial rate of killing is slow, but becomes extremely rapid after about 45 minutes to one hour. The rate of killing correlates with CuSO<sub>4</sub> concentration. Similar results were seen when *E.coli* is exposed to copper chips. This killing also correlates with increased lipid peroxidation levels. This presentation is part of requirements associated with Honors BI453.

**Student:** Omid Khalpari  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Bioinformatics Analysis of Antibiotic Induced Evolutionary Changes in *Escherichia Coli* Gyrase

**Abstract:** This study is designed to look at microbial evolutionary changes in *E. coli* brought about using a controlled dosage of the antibiotic ciprofloxacin as the selective pressure. The evolutionary changes will be studied using bioinformatics. Wildtype (drug sensitive) *E. coli* with tagged GyrA and GyrB genes will be grown in a medium containing a low concentration of ciprofloxacin in order to keep the population stable over the course of several thousand generations. Various drug resistant strains will be isolated, the GyrA and GyrB DNA sequenced and analyzed to look for mutations.

This presentation is part of the requirements associated with Honors BI453.

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**Student:** Nuria Lemus  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** VNTR Technique as a Tool for DNA Fingerprinting Analysis

**Abstract:** Polymorphic DNA refers to chromosomal regions that vary widely from one individual to next. This is the basis of DNA fingerprinting analysis which is widely used for paternity, kinship and forensic analysis. In this study, we will use PCR as a tool to study the Variable Number of Tandem Repeats VNTR pattern in our class. PCR products will be run on agarose gels to determine the size of the amplified locus to reveal the differences.

This presentation is part of requirements associated with Honors BI453.

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**Student:** Vanessa Martinez  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** *Organic or Genetically Modified?* In Search for Truth in Food Labeling

**Abstract:** Tomatoes, soybeans, and corn were among the first genetically modified food products approved by US agencies in the 1990s. Since then food biotechnology continues to grow rapidly. This has also led to a lot of ethical debates on what should be done about genetically modified foods. Proper labeling is very important for consumers. We decided to test food products from the supermarket that marked "organic" and compared them to regular food. Since plants are usually modified using viruses like CaMV, in our study we used primers specific to genetically modified food to reveal the truth in food labeling.

This presentation is part of requirements associated with Honors BI453.

**Student:** Yahaira Paulino  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Using Biotechnology Tools to Identify Genetically Modified, Commercially Available Plants/Food Products

**Abstract:** The goal of plant genetics is the development of plants that yield optimum product. With the advent of biotechnology, cloning and expression of genes in genetically-modified plants have increased yields, nutritional value and enhanced quality. Among the most common procedures used in plant genetic engineering is the use of Ti plasmid, CaMV promoter and NOS regulatory sequence. The goal of our project was to use biotechnology tools to identify genetically modified commercially available food products.

This presentation is part of the requirements associated with Honors BI453.

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**Student:** Josephine Welle  
**Faculty:** Dr. Nidhi Gadura  
**Department:** Biological Sciences & Geology  
**Presentation Form:** PowerPoint  
**Topic:** Phenotypic Characterization of *Saccharomyces Cerevisiae* Cells Expressing Mammalian Pkca

**Abstract:** PKC $\alpha$  is a member of the serine-threonine protein kinase family. It phosphorylates target proteins and is known to be involved in diverse cellular signaling pathways. Elevated PKC $\alpha$  activity leads to increased motility of human breast and melanoma cells. Hsp90 is an essential molecular chaperone required for folding, activation and maturation of several client proteins. Previous studies from our collaborator suggest that PKC $\alpha$  might be a client of Hsp90. Our study is designed to investigate the possibility of a PKC $\alpha$  Hsp90 interaction in a yeast model. As part of this project, spectrophotometry was used for the growth rate experiments. Digital microscopes were used to capture images of *S. cerevisiae* and MotiC Images 2.0 software was used to measure cell size. Our data indicates that PKC $\alpha$  overexpression results in a significantly slowed growth rate suggesting defects in cell cycle.

This presentation is part of requirements associated with Honors BI453.

**M – 134**  
**BIOLOGICAL SCIENCES & GEOLOGY**

**Student:** Tresa Ambooken  
**Faculty:** Dr. Regina Sullivan and Dr. Andrew Nguyen  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Effect of Green Tea Extract on the Proliferation of Cancer Cells

**Abstract:** Rapid proliferation in cancer cells is one of the biggest obstacles to treating and curing cancer. It has been suggested that the antioxidant ECGC (epigallocatechin gallate) found in green tea slows down the growth of cancer cells. We are testing the effects of green tea extract on the proliferation of human breast cancer cells. Through cell counting, we can establish whether or not the tea has an effect on the rate of proliferation and how significant a difference the presence of the tea makes.

This is a course assignment associated with Honors BI456.

**Kingsborough Community College**

**Student:** Edith M. Estrella-Ramos  
**Faculty:** Dr. Jose Nanin  
**Department:** Health, Physical Education & Recreation  
**Presentation Form:** Spoken Presentation  
**Topic:** Female Genital Reconstruction

**Abstract:** In this presentation, I will speak about some of the taboos surrounding the female vulva. I will speak about some of the reasons that have led to these taboos and the shame some women experience when speaking about the vulva. I will further discuss some recently popular reconstructive procedures. It is hoped that my efforts will help women advocate for self-acceptance and promote positive sexual health for themselves.

**Student:** Justine Farrell  
**Faculty:** Dr. Chong Jue  
**Department:** Biological Sciences and Geology  
**Presentation Form:** Lecture  
**Topic:** Respiratory, Cardiovascular, Circulatory and Nervous System

**Abstract:** Part of the STEP program is designed to help high school students to pass the Living Environment regent exam. My teammate (Aneta Wierciszewski) and I met the students on Saturday mornings to explain several organ systems of the animal body. To help the students further understand the physiology of the system we dissected fetal pig and a cat. In this project, I learned about teaching-learning interactions of science education.

This is a course assignment associated with taking an Honors Contract for BI302.

**Student:** Thomas Kim  
**Faculty:** Dr. Regina Sullivan & Dr. Andrew Nguyen  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Alu-Sequence Frequency amongst Geographically Diverse Population

**Abstract:** The Alu family sequence of DNA (~300 b.p.) are short genomic motile elements interspersed throughout the human genome. These Short Interspersed Nuclear Elements, or SINEs, are estimated to be about 10.7% of the human genome and its phenotypic contribution has yet to be fully understood. Nevertheless, previous research has shown that correlations lie with the Alu sequence and its polymorphic effect upon inherited disorders and diseased alleles. Our research will investigate the important population genetics of these SINEs in varying population models based on geographic descendants. Furthermore, data will be analyzed from Alu sequence identification in Human Breast Cancer cells that may help identify any correlations between cell cancer disorder and the Alu genome presence in oncogenes. This is a course assignment associated with Honors BI456.

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**Student:** Jung David Kim  
**Faculty:** Dr. Regina Sullivan & Dr. Andrew Nguyen  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** PKC Substrates in Cancer Cells

**Abstract:** The misregulation of Serine/Threonine Kinases has been discovered in different types of cancer. Di Fiore, P.P. et al (1.) identified the misregulation of 21 Serine/Threonine kinases out of a sample of 125 STKs representative of all major subgroups. PKC is a Serine/Threonine Protein Kinase and is highly expressed in many cancer cell lines. The identities of the PKC-substrates are largely unknown. This study attempts to detect the presence of PKC-substrates in breast cancer, lung cancer, and melanoma cancer cell lines using Western Blot Analysis.

(1.) Di Fiore, P.P., Capra, M., Nuciforo, P.G., et al. (August 15, 2006). Frequent Alterations in the Expression of Serine/Threonine Kinases in Human Cancers. *Cancer Research*, 66, 8147-8154. This is a course assignment associated with Honors BI456.

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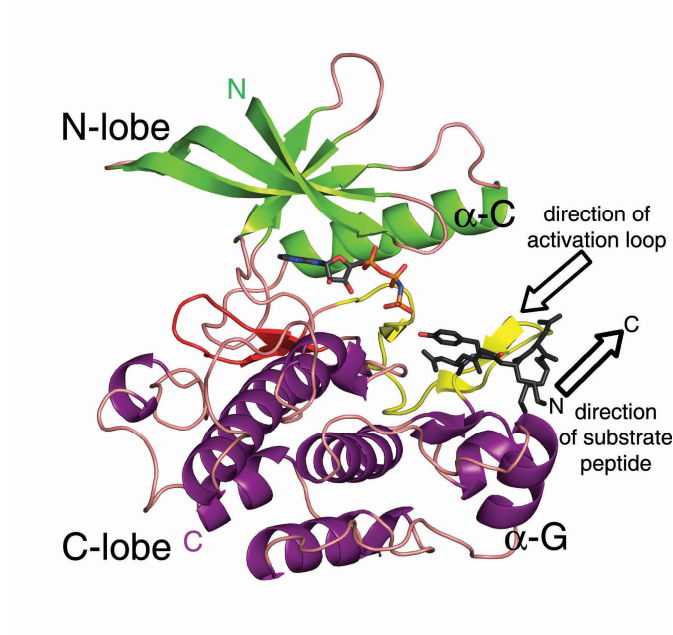
**Student:** Prakash O. Prasad  
**Faculty:** Dr. Regina Sullivan & Dr. Andrew Nguyen  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Studying Alu Sequences in Different Ethnic Backgrounds

**Abstract:** The Alu has been observed in many primate genomes, especially in humans. The Alu alleles comprise of 10.7% of the human genome, with less than 0.5% being polymorphic (Roy-Engels). This polymorphism may give evidence that the Alu alleles could explain the different phenotypes of individual from specified regions. This experiment will use samples from the diverse population at the university to represent the different regions of the world. Results will be used in correlating Alu sequences to ethnic phenotypes. This is a course assignment associated with Honors BI456.



**Student:** Rana Said  
**Faculty:** Dr. Regina Sullivan and Dr. Andrew Nguyen  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Analysis of the Presence of PKC Substrates in Cancer Cells

**Abstract:** Kinase C is a Serine Theronine protein highly expressed in cancer cell lines. In this study breast cancer cell lines, lung cancer cell lines, and melanoma cell lines will be analyzed and compared for the presence of Protein Kinase C substrates using Western Blot Analysis.



This is a course assignment associated with Honors BI456.

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**Student:** Michael Santore  
**Faculty:** Dr. Regina Sullivan & Dr. Andrew Nguyen  
**Department:** Biology Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Determination of the Alu Genotype According to Continent and Race

**Abstract:** Throughout history, evolution has cut out many sequences of DNA. For example sequences that code for structures such as tails and furry coats. In our genome, however, remains a large noncoding sequence known as the Alu genotype. Scientists have yet to discover the function of the Alu genotype so it remains unidentified in purpose. Normal evolutionary methods would have removed it a long time ago, but it is still within our genome. In our experiment, we are going to try to determine if there is any correlation between race by continent and the expression of the Alu genotype.

This is a course assignment associated with Honors BI456.

## Kingsborough Community College

**Student:** Grace Simmons  
**Faculty:** Professor Barbara Gattullo  
**Department:** Nursing  
**Topic:** Pharmacokinetics: Implications for the Management of Polypharmacy in the Geriatric Population

**Abstract:** The geriatric population in America is facing a growing medical crisis. This crisis, termed "polypharmacy," denotes the use of multiple drugs to treat multiple concurrent disorders in the same patient. This term is frequently used when describing the haphazard or indiscriminate prescription of many drugs to geriatric clients, while not considering the implications of the aging process on the physiology of the elderly body, or if the medical problems being treated, are caused by an overuse or over-prescribing of drugs themselves. There are many factors to take into consideration in the management of polypharmacy in the geriatric population. Understanding the uses and side effects of individual drugs, the precipitating factors of the patient's medical complaints, and the pharmacokinetics of the aged body are of the utmost importance in combating the prevalence of polypharmacy in the elderly. In a collaborative effort, the physician, nurse, pharmacist, patient, and their families should investigate matters surrounding the prescriptions of geriatric client more closely. Then and only then can we combat this detrimental cocktail of medications we call polypharmacy.

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**Student:** Raluca E. Toscano  
**Faculty:** Dr. Karen Goldman & Professor Gerald Sachs  
**Department:** Health, Physical Education & Recreation  
**Topic:** Mathematics and Stress Reduction

**Abstract:** In this presentation, I will speak about what is stress and the means of coping with stress, and some strategies of stress management. Then I will bring to attention what is mathematics and the needed skills to maneuver it. Besides, I will discuss about the fear of mathematics in America and some possible reasons that have typically lead to it. I will further discuss the use of mathematics to reduce or manage mathematics anxiety. In addition, to all these strategies, I will dare to include a new approach to it: mathematics, a nontraditional healthy stress reducer. My challenge is to encourage students to study mathematics, and show that mathematics and its related activities would help us relax and release the built-up tension in our body. It promotes the feelings of well-being, helps relieve emotional stress, and makes us feel happier and be healthier.

**Student:** Ahsan Waqar  
**Faculty:** Dr. Regina Sullivan and Dr. Andrew Nguyen  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Anti-proliferative Effect of Green Tea Extract on Breast Cancer Cells

**Abstract:** ECGC a component of green tea has been found to reduce cancer cell proliferation. My research will focus on studying the effects of a green tea abstract on breast cancer cell proliferation.



**Breast Cancer Awareness  
Pink Ribbon Symbol**

This is a course assignment associated with Honors BI456.

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**Student:** Aneta Wierciszewski  
**Faculty:** Dr. Chong Jue  
**Department:** Biological Sciences and Geology  
**Presentation:** Oral Presentation  
**Topic:** Respiratory, Cardiovascular, Circulatory and Nervous System

**Abstract:** We introduced anatomy and physiology of the respiratory, cardiovascular, circulatory, and nervous system to high school students in the STEP program. The teaching was focused on the structures and functions of those systems. Our goal was to help students to understand body functions. Our students actively participated in the dissection of the fetal pig. They searched and located various organs and compared them with a pre-dissected demonstration cat. The models of specific body parts were also provided for the class. We monitored the progress of our students by administering a pre-class test and a post-class test.

This is a course assignment associated with taking an Honors Contract for BI302.

## M-136, CHEMISTRY

**Student:** Christina Badal  
**Faculty:** Dr. Tirandai Hemraj-Benny  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Silylation of Single-Walled Carbon Nanotube with Hexaphenyldisilane

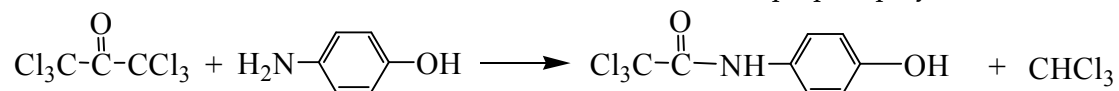
**Abstract:** Single-walled carbon nanotubes (SWNTs) are believed to have unique structural, electronic, and mechanical properties, with potential applications in biological, electronic, and materials fields. However, there are some issues regarding the solubility and the separation of the SWNTs. In an attempt to overcome these issues, silylation of SWNTs with hexaphenyldisilane was performed. Silylation of the SWNTs with hexaphenyldisilane was performed using the refluxing method. The refluxing method is believed to be a more readily available and a cheaper method when compared with previously reported methods, for example, the UV irradiation. Scanning electron microscopy (SEM) analyses were performed to observe any structural differences between the SWNTs samples. Fourier transform infrared (FT-IR) spectroscopy and energy-dispersive X-ray spectroscopy (EDS) data provided evidence for chemical attachment of the organosilane onto the carbon nanotube surface. In addition, in order to study the effect of the silylation process on the electronic properties and the selectivity of the SWNTs, UV-visible spectroscopy was performed. Solubility tests were also performed.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Kenny Bae  
**Faculty:** Dr. Jun H. Shin  
**Department:** Chemistry  
**Presentation form:** PowerPoint  
**Topic:** Syntheses of N-4-Hydroxyphenyltrichloroacetamide:  
Possible Precursor to Polycarbamate

**Abstract:** N-4-hydroxyphenyltrichloroacetamide was obtained by the reaction of hexachloroacetone (HCA) and 4-aminophenol after refluxing overnight in chloroform or benzene in 90% yield. The products were spectroscopically characterized, and the molecular structure has been also determined by X-ray diffraction. 2-aminophenol and 3-aminophenol also showed similar reactivity on HCA. The isolated acetamide derivatives were further utilized to prepare polycarbamates.



This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Imane Elhamdou  
**Faculty:** Dr. Mihaela D. Bojin  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Theoretical Studies on Models of Dihydrofolate Reductase

**Abstract:** Dihydrofolate reductase (DHFR) is an enzyme that contributes to the metabolic pathway of the folate synthesis, by reducing the dihydrofolate to the active tetrahydrofolate. One of its reversible and most effective inhibitors methotrexate (MTX) is also an exceptionally potent anti-cancer and auto-immune diseases drug, because it induces a nearly instant apoptosis of carcinogenic cells. We will explore several possible protonation states of DHFR's active site and MTX, by performing density functional (DFT) calculations on several models derived from these systems, in order to get some understanding of the inhibition process.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Ngai Hin Lo  
**Faculty:** Dr. Sasan Karimi, Dr. Gopal Subramaniam  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** <sup>1</sup>H and <sup>13</sup>C NMR Assignments and Conformational Studies on 3H-1-Benzazepines

**Abstract:** Our interest in benzazepines stems from its pharmacological importance in the treatment of various diseases. Using a synthetic approach reported recently by one of our groups, we made several analogs of 3H-1-benzazepine as possible PTP inhibitors. The synthesized analogs carried different substituents such as phenyl, cyanophenyl, methoxyphenyl, trifluoromethylphenyl, and naphthyl on the 2 and 4 positions of 3H-1-benzazepine. The <sup>1</sup>H and <sup>13</sup>C NMR assignments of these compounds were carried out by 1D and 2D NMR techniques. In all the compounds, the methylene protons at C3 were observed as a single peak at room temperature suggesting a rapid exchange between two conformations. At -45 °C, the methylene protons appeared as separate signals. The size of the substituent did not affect the exchange rate except when the 5-position of 3H-1-benzazepine was substituted by a methyl group.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Toor Noori  
**Faculty:** Dr. Tirandai Hemraj-Benny  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Silylation of Single-Walled Carbon Nanotube with Trimethoxysilane

**Abstract:** Carbon nanotubes (SWNT) are very similar to diamond and graphite in the way that they are all considered allotropes of carbon. SWNT's have potential applications in biological, electronic, and material fields due to the unique structural, electronic, mechanical and optical properties it holds. Herein, to address issues of solubility and separation of SWNTs, the silylation of raw single-walled carbon nanotubes (SWNTs) with trimethoxysilane, by refluxing method was investigated. The method of reflux is most affordable and readily available in comparison with other previous methods used such as UV irradiation. To examine the structural differences between the SWNT samples, scanning electron microscopy (SEM) examination was performed. Fourier transformed infrared (FT-IR) spectroscopy and energy-dispersive X-ray spectroscopy (EDS) data provided evidence for chemical attachment of the organosilane onto the carbon nanotube surface. Also, UV-visible spectroscopy was used to study the effect of the silylation process on selectivity of SWNT's and its electronic properties. Throughout solubility test were performed.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Crystal Park  
**Faculty:** Dr. Jun Shin  
**Department:** Chemistry  
**Presentation form:** PowerPoint  
**Topic:** Temperature Effect on Refractive Index Measured by a Laser Pointer

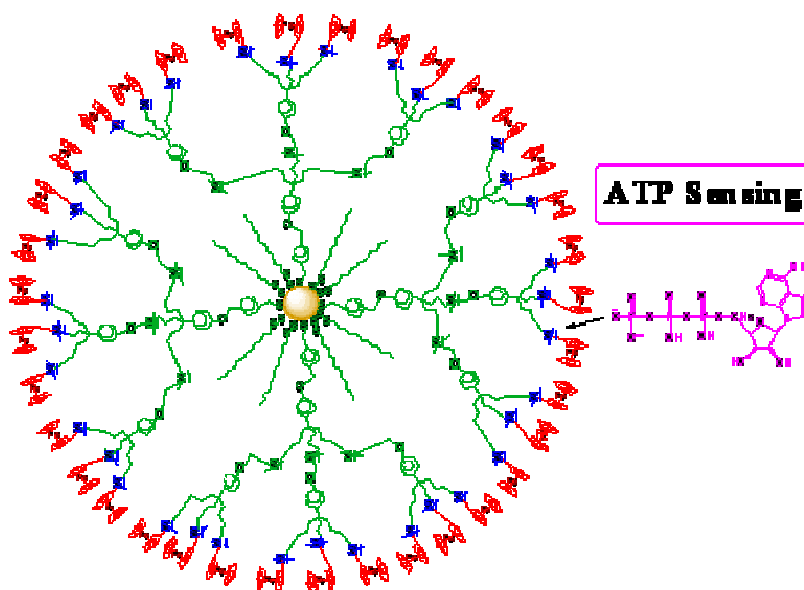
**Abstract:** Refractive index is one of well-known analytical technique to identify compound, however, it is rarely adopted to the undergraduate laboratory curriculum because (i) the cost of a refractometer is too high to be used in the undergraduate laboratory, (ii) measurement of refractive index by refractometer is too simple to be included in the undergraduate laboratory curriculum, and (iii) proper and easy to approach setup for the experiment is not fully developed yet. Recently we have developed a simple, accurate and inexpensive setup for a refractive index experiment using a laser pointer. The setup was very easy to use and was very accurate for single and binary solvent systems. The laser pointer method has been further applied to measure the temperature effect on the refractive index of various solvents.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

<b>Student:</b>	Carolina Chaves Prado
<b>Faculty:</b>	Dr. David M. Sarno
<b>Department:</b>	Chemistry
<b>Presentation Form:</b>	PowerPoint
<b>Topic:</b>	Polyaniline Nanofiber-Gold Nanoparticle Hybrids

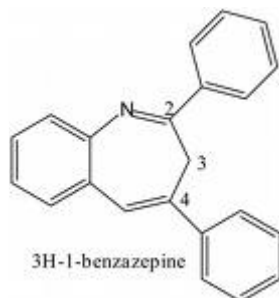
**Abstract:** Polyaniline (PAni) nanofibers and gold nanoparticles (Au-NP's) are both of interest for nanoscale electronics including sensors. Nanofibers of PAni, as well as its sulfonic acid and thiomethyl-substituted analogs, have been combined with Au-NP's to create hybrid nanomaterials. The uptake of Au-NP's by the nanofibers is found to depend on the PAni functional group and the size of Au particles. UV-vis probed the electronic structure of PAni and determined the size of Au-NP's. FTIR confirmed the functional groups of the polymers and probed the chemisorption of Au-NP's to the polymer. Scanning electron microscopy showed that smaller Au-NP's were more thoroughly incorporated into the polymer nanofibers than larger Au-NP's. Investigation of the nature of the attachment is ongoing. Notably, neither nanomaterial suffers any structural change when mixed together to form the composite.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.



**Student:** Prakash Prasad  
**Faculty:** Dr. Sasan Karimi  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** The Synthesis and Ring Contraction of 1-Benzazepines

**Abstract:** The synthesis of several biologically active 1-benzazepines will be presented. NMR experiments were performed to elucidate structural identity and expand the scope for the syntheses of the molecules containing the 1-benzazepine moiety. The orientation of the aryl groups at positions 2 and 4 with respect to the plane of 1-benzazepine ring moiety were examined using various NMR experiments. An unusual ring contraction of the 1-benzazepine to the corresponding quinoline ring system will also be described.



This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student's name:** Daniel Sangobanwo  
**Faculty:** Dr. Mihaela D. Bojin  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Asparagine's Conformers: A Computational Study

**Abstract:** Amino acids are common targets for computational studies because of their small sizes, but also the major role they play in our lives. Their flexible structures are accountable for the numerous conformations resulting from intra- and inter- molecular H-bonding interactions. Altering a single amino acid could reduce or even eliminate the activity of that particular enzyme. In our examination we employed the hybrid Hartree-Fock (HF) and density functional theory (DFT), B3LYP/6-31+G (d,p) method implemented in the Gaussian 03 program, to determine the major conformations (H-bond patterns) in neutral (no charge) and zwitterionic asparagine, as well as in its protonated (acidic) and deprotonated (basic) forms.

This project is associated with taking the CH-904/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.



**Student:** Eva Maria Santos Tejada  
**Faculty:** Dr. David M. Sarno  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Highly Porous Poly(O-Toluidine)

**Abstract:** Polyaniline is among the most studied and useful conducting polymers because of its facile synthesis, environmental stability, and simple acid/base doping/dedoping chemistry. We have found a method by which methyl-substituted polyaniline, poly(o-toluidine), can be prepared as a highly porous material. Scanning electron microscopy reveals varying quantities of porous micro-scale spheres among irregularly shaped aggregates. This project is focused on improving the yield of the spherical material over all other structures. Preliminary results suggest the porous morphology is obtained when a concentrated mixture of the polymer in water is exposed to ammonium hydroxide. Reproducible porous structures may find application to the encapsulation of other smaller particles.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Student:** Gurpreet Singh  
**Faculty:** Dr. Moni Chauhan and Dr. Tirandai Hemraj-Benny  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Investigating the Attachment of Silver Nanoparticles onto Single-Walled Carbon Nanotube

**Abstract:** In this study, we investigated the attachment of silver nanoparticles onto raw, pristine single-walled carbon nanotubes (SWNTs). A one pot synthetic method was used, where silver nanoparticles were first synthesized by tris(trimethoxysilylpropyl)isocyanurate (TTPI) induced reduction of silver nitrate. SWNTs were then added to pre-synthesized silver nanoparticles. The formation of the silver nanoparticles was monitored by UV-Vis spectroscopy. Scanning electron microscopy (SEM) and transmission electron microscopy (TEM) confirmed the presences of the nanoparticles on the outer surfaces of the SWNTs and provided size distribution of the nanotube-nanocrystal composites.

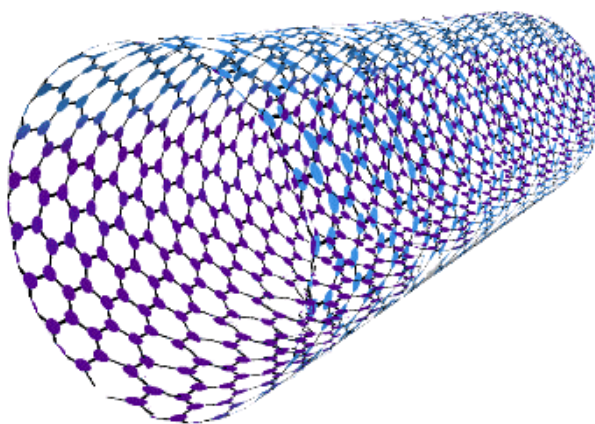
This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

**Student:** Chi Kwan Wong  
**Faculty:** Dr. Tirandai Hemraj-Benny and Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Investigating the Formation of Silver Nanoparticles onto Single-Walled Carbon Nanotube

**Abstract:** In this study, we investigated the growth of silver nanoparticles onto raw, pristine single-walled carbon nanotubes (SWNTs). A one pot synthetic method was used, where silver nanoparticles were synthesized by tris(trimethoxysilylpropyl)isocyanurate (TTPI) induced reduction of silver nitrate in the presence of SWNTs. The formation of the silver nanoparticles was monitored by UV-Vis spectroscopy. Scanning electron microscopy (SEM) and transmission electron microscopy (TEM) confirmed the presences of the nanoparticles on the outer surfaces of the SWNTs and provided size distribution of the nanotube-nanocrystal composites.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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**Nanotube**

## M-140 CHEMISTRY

**Student:** Treisha Amos  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation:** PowerPoint  
**Topic:** The Chemistry of Soap: The Process of Soap Making and the Reasons Why It Is Such an Effective Cleaner

**Abstract:** Soaps are water-soluble sodium or potassium salts of fatty acids. The process of soap making (saponification) and the reasons why it is such an effective cleaner will be discussed. Although soaps are excellent cleansers, they do have disadvantages. The advantages and disadvantages of soap will be discussed.



This is part of the course obligations associated with Honors CH152.

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**Student:** Samanta Boursiquot  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Acetaminophen

**Abstract:** Acetaminophen is an analgesic (pain reliever) and antipyretic (fever reducer). The chemical name is para-acetylamino-phenol. It is commonly known as paracetamol. It is used to relieve fever, headache, and some other minor aches and pains. Acetaminophen is an active ingredient in Tylenol. It is also a major ingredient in numerous cold and flu medication. In addition, paracetamol is also used in the management of severe pain. Acetaminophen is not known to have any adverse effects on the body; however, high doses could increase the risk of upper gastrointestinal complications which can lead to stomach bleeding. This presentation will include a discussion of the common uses, synthesis and mechanism of action of acetaminophen.

This is part of the course obligations associated with Honors CH152.

**Student:** Eunchul Kim  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Conjugation and Growth of Silver Nanoparticles in TTPI Gels

**Abstract:** Stable and processable nanoparticles are of critical importance due to their unique and potentially important industrial applications. In this research, synthesis and stabilization of noble metal nanoparticles in organic media using TTPI [tris (trimethoxysilylpropyl) isocyanurate] and TOA (trioctylamine) was studied. TTPI molecule has amine and carbonyl functional groups that can act as coordinating agent to stabilize the resulting metal nanoparticle, and Si-methoxy groups that can be polymerized to produce stable gels. Reactions to synthesize silver nanoparticles via reduction of silver salts have been performed using different molar equivalents of TTPI and TOA. Silver nanoparticle formation has been monitored using UV-vis spectroscopy, SEM, TEM and EDX. The preliminary studies of sol-gel polymerization of TTPI with silver nanoparticles are also presented. Though at a preliminary stage, these studies indicate that stable gels are formed enabling convenient handling and storage of resulting nano conjugates.

This project is associated with taking the CH-902/905 sequence of honors chemistry where students conduct original research which will be presented orally at the 57<sup>th</sup> Undergraduate Research Symposium of the American Chemical Society-New York section at Pace University at Pleasantville, NY on May 2<sup>nd</sup>, 2009 and in a poster form at the 238<sup>th</sup> ACS National Meeting at Washington, DC on August 16-20, 2009.

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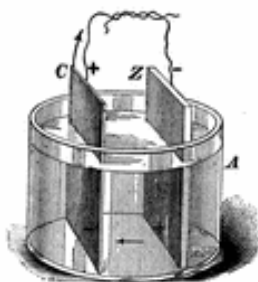
**Student:** Sungwon Lee  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Gold

**Abstract:** The purpose of this project is to give you information about gold and how gold is related to human's life. Some background knowledge of gold was studied briefly. This work presents that the properties of gold and the application of gold and how they are related to our society and its uses are studied in this work. Gold has been used from pre-historic times because of its stability in the atmosphere. According to the development of technique and industry, the uses of gold have been increased. Nowadays, gold is used not only as jewelry, but also as a semi-conductor which is really useful for computer which need very sophisticated and stable semi-conductor. Furthermore, gold is used in food and drink.

This is a part of the course obligations associated with Honors CH152.

**Student:** Qi Li  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Primary Cell

**Abstract:** In this presentation the theory and application of a primary cell as a device for translating chemical energy to electric energy will be discussed. There are positive and negative ions in the aqueous solution and the electrodes put in this solution produce current. In this presentation different kinds of batteries and how to increase the efficiency of primary cells will be discussed.

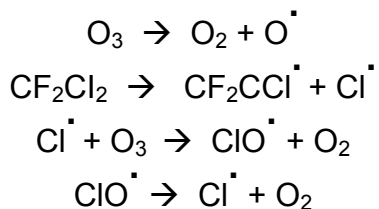


This is part of the course obligations associated with Honors CH152.

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**Student:** Wanqing Lin  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Some Information about O<sub>3</sub>

**Abstract:** The ozone in the atmosphere protects the earth as it absorbs 90% of the UV light from the sun. The ozone is synthesized by the reaction  $O_2 + O \rightarrow O_3$  in the presence of sunlight. Because the ozone is not stable, it may decompose as shown:

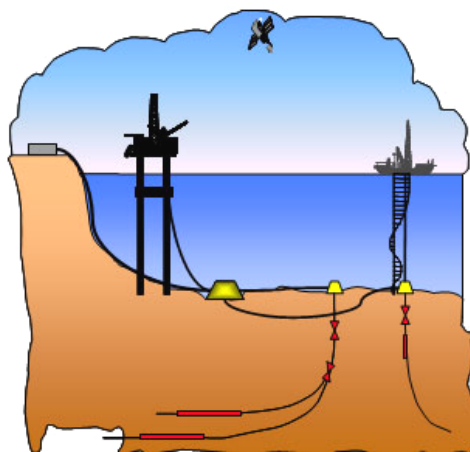


These reactions show that the CF<sub>2</sub>Cl<sub>2</sub> can produce chlorine radicals which can react with O<sub>3</sub>. As a result the ozone has been found to be depleted in some areas such as near the South Pole. The chemistry of ozone will be presented.

This is part of the cause obligation associated with Honors CH152.

**Student:** Hong Wen Lu  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Other Energy Sources Instead of Petroleum

**Abstract:** Since the Industrial Revolution, people use petroleum very often, petroleum makes our lives more convenient and developed, but at the same time, it also creates a lot of serious problems to humans. In this presentation, I will discuss the trouble of abusing petroleum, and how the scientists find the other energy sources, and how to make a fair law to control the amount of petroleum use.



This is part of the course obligations associated with Honors CH152.

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**Student:** Sarah Lutchman  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** The Importance of Electroplating in Industrial Use

**Abstract:** Electroplating was considered to be artistic talent, but now its scientific value is being appreciated. The process of electroplating entails the formation of a metallic layer unto a metal when an electric current is applied. The process of electroplating is also referred to as electrode position. The cathode and the anode of the circuit are submerged in the electrolyte, the dissolved metal salts. The ions of the salt are positively charged and therefore attract the negatively charged object. The oxidation and the reduction of the electrons also play an important role in electroplating process. Electroplating is used in many industries such as electronics, jewelry making, engineering and areas of research, to name a few. Its value will be fully recognized in industrial research in the future.

This part of the course obligation associated with Honors CH152

**Student:** Toor Noori  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Silicon

**Abstract:** Silicon has the atomic #14 and atomic weight of 28.086. Silicon is a pure dark gray solid with the same crystalline structure of a diamond. Physical and chemical properties are also similar to diamonds. Silicon is a very useful element that is used in everyday life. There is silicon in products that are used everyday such as soap, adhesives, and containers. Silicon is also popular in other fields of work being an ingredient in electrical insulators, medical implants, lubricants and many more. Silicon makes up 25.7% of the earth's crust by its weight. Next to oxygen it is the second most copious element. Although silicon is not found free in nature it appears as oxide and as silicate. Oxide appears in the form of sand, rock, crystal, jasper, and others. The silicate form exists in granite, clay, mica, and many more. Sand silicon is used to make glass which is considered one of the most affordable materials that have mechanical and electrical properties. Silicon is the most essential component in microchips and semiconductors. Silicon is formed through a process called a reduction process, and its impurities are improved through a refining process.

This is part of the course obligations associated with Honors CH152.

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**Student:** Firmause Payen  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Uses of Lithium

**Abstract:** Lithium (Li) is a chemical element; it does not occur freely in nature, but combined with other substances it is found in small unit in rock and mineral spring. Lithium is a soft alkali metal; it processes a low coefficient of thermal expansion and has the highest specific heat capacity of any other solid element. Based on its high specific heat, lithium is used in heat transfer applications, also in battery material due to its electrochemical potential. Lithium ion is very helpful in the synthesis of neurological drugs. There are some common lithium salts such as  $\text{Li}_2\text{CO}_3$ ,  $\text{LiCl}$  and many more which constitute the main component of mood-stabilizing drugs. When mixed with other metals, it gives high performance in aircraft parts. Since lithium is used in many different forms, it's important to be aware of its side effects in case it is used in excess. The properties, uses and side effects when used in drugs will be discussed.

This is part of the course obligations associated with Honors Chemistry CH152.

**Student:** Sahar Refua  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Allergy Medication

**Abstract:** Allergy is when the body's immune system reacts to something harmless. Substances that cause allergy are called allergens. Allergens activate the antibody immunoglobulin E. Anti-histamine which can cause relief to the symptoms, but cannot cure inflammation. Steroids are considered for effective treatment, but have side effects. The science behind allergy and its medications will be discussed.

This is part of the course obligations for Honors CH152.

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**Student:** Parsa Sharifi  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Radiation Chemistry

**Abstract:** Radiation Chemistry is a subdivision of nuclear chemistry. It is not to be mistaken with radiochemistry. Radiation chemistry is used to see its effects on matter. A simple example of radiation chemistry is the conversion of water into either hydrogen peroxide or hydrogen gas. It is also used in a study with ionic liquids to see how a certain ionic liquid reacts when it is shot with x-rays.

This is part of the course obligations associated with Honors CH152.

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**Student:** Daniel Sangobanwo  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation form:** PowerPoint  
**Topic:** Carbon and Its Significance to Life

**Abstract:** Carbon is one of the most significant elements known to life. It is the fourth most abundant element by mass in the universe after hydrogen, helium and oxygen. Carbon is also the second most abundant element by mass in the human body after oxygen. Several allotropes of carbon occur naturally. Carbon is so abundant that it forms more compounds than any other element with more than 10 million pure organic compounds described to date. The physical and chemical properties of carbon will be reviewed. Some examples of naturally existing carbon compounds will also be touched upon. Industrial use of carbon, such as production of fossil fuels and polymerization, will also be discussed in this context. Examples of carbon products in our everyday lives will also be given.

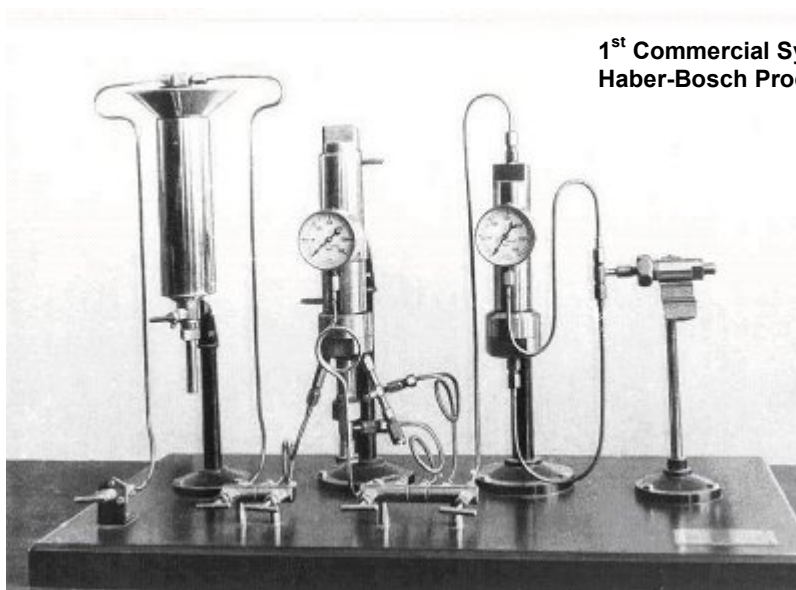
This is part of the course obligations associated with Honors CH152.



**Student:** Rangina Wali  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** The Haber-Bosch Process

**Abstract:** Hydrogen is catalytically reacted with nitrogen to form liquid ammonia. This step is known as the ammonia synthesis loop also referred to as the Haber-Bosch process. Ammonia is the most highly synthesized inorganic compound mainly used as fertilizer for agricultural crops. It is also used in household cleaners, as a precursor to various pharmaceuticals, and in the past, as a fuel for engines. In this presentation the synthesis and properties of ammonia will be discussed.

This is part of the course obligations associated with Honors CH152.



**1<sup>st</sup> Commercial Synthesis of Ammonia  
Haber-Bosch Process - 1913**



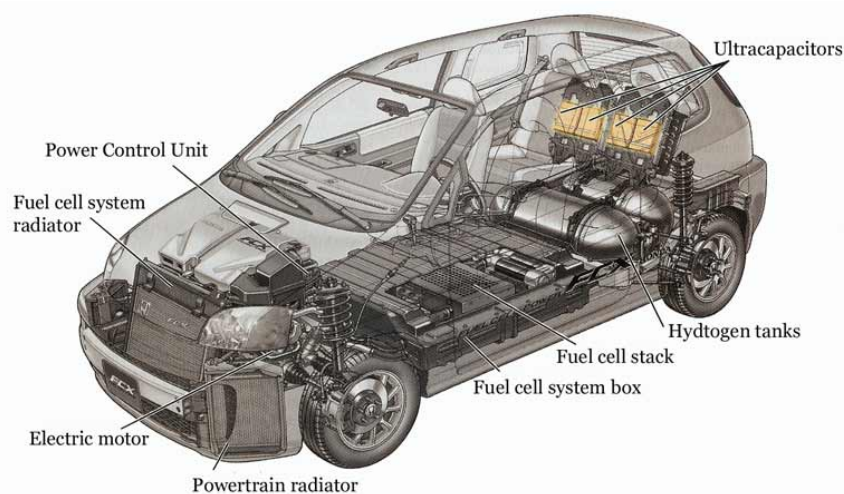
**Left: Fritz Haber**

**Right: Karl Bosch**



**Student:** Mena Yacoub  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint Presentation  
**Topic:** How Hydrogen Cars Will Work Better than the Traditional Automobile

**Abstract:** With the current problem of global warming our automobile industries are trying to keep up with economical demands. The hydrogen car is the answer to the dilemma of the automobile industries. There has been a huge amount of research devoted to discovering alternate fuels for automobiles; however none look as promising as the hydrogen-powered automobile. The hydrogen-powered car does not run on hydrogen alone, but uses fossil fuels to produce hydrogen to be burned by the engine instead of gas. There is still a long way to go before a street model of the hydrogen car will be released, however, scientists are confident in the effect this new technology will have on our atmosphere. The hydrogen-powered automobile won't cut the use of fossil fuels, but will rather lower our consumption of them and give us more energy to burn than the traditional gasoline. In short, the hydrogen car will use less fossil fuels and travel farther on the gallon than a traditional car.



This is part of the cause obligations associated with Honors CH152.

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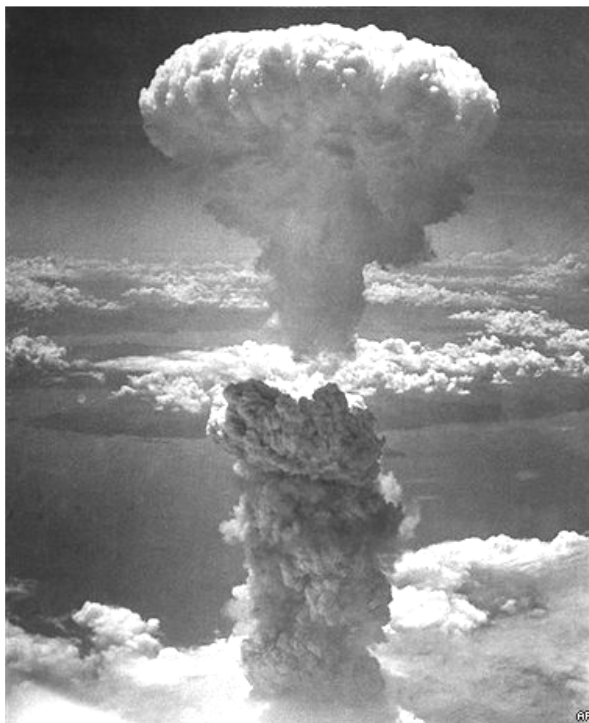
**Student:** Verona Young  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** The Chemistry of Insulin

**Abstract:** An estimated 23.6 million people in the United States suffer from diabetes. Diabetes results from a deficiency in insulin production. Insulin is a hormone produced by an organ situated behind the stomach, known as the pancreas that regulates the level of glucose. Insulin is a small protein synthesized and stored within the pancreas. In this presentation, the structure and the synthesis of insulin will be discussed. This is part of the course obligations associated with Honors CH152.

**Student:** Zongyu Zhang  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Chemistry of Nuclear Weapons

**Abstract:** A nuclear weapon is an explosive device that derives its destructive force from nuclear reactions, either fission or a combination of fission and fusion. Both reactions release vast quantities of energy from relatively small amounts of matter. Even small nuclear devices can devastate a city. Nuclear weapons are considered weapons of mass destruction, and their use and control has been a major aspect of international policy since their debut. There are two basic types of nuclear weapons. The first type produces its explosive energy through nuclear fission reactions alone. Such fission weapons also commonly referred to as atomic bombs, though their energy comes specifically from the nucleus of the atom. The second basic type of nuclear weaponry produces a large amount of its energy through nuclear fusion reactions. Such fusion weapons are generally referred to as thermonuclear weapons or more colloquially as hydrogen bombs, as they rely on fusion reactions between isotopes of hydrogen; however, all such weapons derive a significant portion of their energy from fission. Unlike fission weapons, there are no inherent limits on the energy released by thermonuclear weapons.

This part of the course obligations associated with Honors CH152.



## M-142

### MATHEMATICS & COMPUTER SCIENCE

**Students:** Guozhen An, Xi Chen, John D. Ledesma, Sungwon Lee,  
Mridulendra P. Singh, Carlton Tabb, Michael A. Torres,  
Pablo E. Velastegu, and Edmond W. Williams

**Faculty:** Dr. C. Abreu-Suzuki

**Department:** Mathematics and Computer Sciences

**Presentation Form:** Presentation using MAPLE software and GoldWave

**Topic:** Creating Sound

**Abstract:** The student will describe the usage of MAPLE commands in the work: "Creating Sound Sample Files Using Maple", by Paul Goossens (Waterloo Maple, Inc.)

This is a course assignment associated with taking an Honors Contract in MA442.

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**Student:** Ti Ya Chang

**Faculty:** Professor Howard Sporn

**Department:** Mathematics and Computer Sciences

**Presentation Form:** PowerPoint/Geometer's Sketchpad

**Topic:** Descartes



**Abstract:** René Descartes was an acknowledged philosopher, mathematician, and physicist. His basic philosophical ideas such as mind/body dualism and his metaphysics will be introduced. In mathematics, he not only developed the idea of the Cartesian coordinate system, but also the concept of calculation of segments in geometry, and these will also be presented with Geometer's Sketchpad in my report.

This is a course assignment associated with taking an Honors Contract in MA443.

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**Student:** Di Luo

**Faculty:** Dr. Joseph Bertorelli

**Department:** Mathematics and Computer Sciences

**Presentation Form:** Lecture

**Topic:** Introduction to Leontieff's Input-Output Model

**Abstract:** Elementary examples; using linear algebra to represent requirements; solution by series; simplified model of the former Yugoslavia economy; further research.

**Students:** Tayyaba Nasar, Paulo Saavedra, Byungsub Chung, Alex Pantzialas  
**Faculty:** Dr. Joseph Bertorelli  
**Department:** Mathematics and Computer Sciences  
**Presentation Form:** Lecture  
**Topic:** A Surveyor's Area Formula

**Abstract:** Derivation of the formula, extension to circle and closed curves; examples.

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**Students:** Farid Rastegar, Louis Deltor, Sanraj Sidhu  
**Faculty:** Dr. Joseph Bertorelli  
**Department:** Mathematics and Computer Sciences  
**Presentation Form:** Lecture  
**Topic:** Study of a Shuttle's Robot Arm

**Abstract:** Definition of the workspace of a robots arm; Single variable and multivariable solutions; optimal retrieval path.

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**Student:** Sabrina Torchon  
**Faculty:** Professor Howard Sporn  
**Department:** Mathematics and Computer Sciences  
**Presentation Form:** PowerPoint  
**Topic:** Euclid



**Abstract:** This will be an overview of Euclid's work *The Elements* and its influence on the history of mathematics. Euclid's work is important as a geometry and number theory text and because of its use of the axiomatic method. The Pythagorean Theorem will be proven using Euclid's original method. This is a course assignment associated with taking an Honors Contract in MA442.

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**Students:** Yuhuan Liu, Ka Cheng, Stuart Horowitz  
**Faculty:** Dr. Joseph Bertorelli  
**Department:** Mathematics and Computer Sciences  
**Presentation Form:** Lecture  
**Topic:** Roulettes

**Abstract:** Examples of rolling curves on a line; necessary conditions and examples; further generalizations.

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**Students:** Zongyu Zhang, Ying Ying Chen, Yue Yang Gong  
**Faculty:** Dr. Joseph Bertorelli  
**Department:** Mathematics and Computer Sciences  
**Presentation Form:** Lecture  
**Topic:** Solution of a Dental Problem

**Abstract:** Definition of a good occlusal draw, formulation of the problem through vector algebra, occlusal convergence and divergence, solutions.

### New York City College of Technology

**Student:** Mir Ali  
**Faculty:** Professor Justin Vazquez-Poritz  
**Department:** Physics  
**Presentation Form:** Lecture  
**Topic:** What do Black Holes and Wormholes  
Have to Do with Particle Physics?

**Abstract:** We study the behavior of strings moving on black hole and wormhole backgrounds. According to the Holographic Principle, these systems are equivalent to quantum field theories, and the endpoints of the strings correspond to particles. This enables us to investigate various aspects of particle physics which would otherwise remain hidden by conventional techniques. In the case of black holes, we can extract the rate at which quarks moving in a quark-gluon plasma lose energy. Wormholes enable us to model the interaction of two different types of charges, from which we uncover some interesting static and dynamical phase transitions.

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**Students:** Adam Atia (New York City College of Technology) &  
Ibrahim Siddo (City College of New York)  
**Faculty:** Professor Reginald Blake (New York City College of Technology) &  
Professor Vernon Morris (Howard University)  
**Department:** Computer Engineering Technology  
**Presentation Form:** Lecture  
**Title:** Trans-Atlantic Transport of Saharan Dust Aerosols

**Abstract:** The Sahara Desert is the source of nearly four billion metric tons of mineral aerosols entering the atmosphere on an annual basis. These dust aerosols, along with anthropogenic and biomass aerosols originating from natural and human-induced processes in west and central Africa, are carried by the Northeast Trade Winds across the Atlantic Ocean in to the Caribbean and eastern seaboard of the US. The impacts of these aerosols on our atmosphere, ocean and health are manifested in global warming, transport of harmful species in the ocean-mixed layer, and through the deposition of fungi, bacteria and air toxics that may induce and exacerbate asthma and other respiratory ailments. To better understand the dispersion and the impacts of aerosols from the Sahara Desert in particular, a team of scientists at Howard University led by Dr. Vernon Morris developed a series of expeditions called the trans-Atlantic Aerosol and Ocean Science Expeditions (AEROSE). These expeditions involve satellite remote sensing of the atmosphere and the ocean as well as in-situ surface and sub-surface ocean measurements. We became part of this team through an NSF REU (Research Experience for Undergraduates) program at City Tech in June 2008. Our presentation is designed to convey what we have learned so far about these expeditions, some preliminary analysis of the data, and our plans for involvement in future expeditions. (Supported by NSF Research Experience for Undergraduates in Satellite and Ground-Based Remote Sensing a NOAA-CREST grant # 0755686.)

## New York City College of Technology

**Students:** Syed Almamun, Renald Dumbreville, Makenson Dupas,  
Jinglun Li, Beverly Powell and Wenshong Zheng  
**Faculty:** Professor Satyanand Singh  
**Department:** Mathematics  
**Presentation Form:** Lecture  
**Title:** Tantalizing Probabilistic Simulations of the Distribution of the  
Roots of the Generalized Quadratic and Cubic Equations, and  
Their Inexorable Link to Galois Theory

**Abstract:** In our investigations we will simulate the probability of randomly creating a quadratic equation that has real roots. We will verify our results by theoretical considerations. We will extend our analysis to random cubic equations. Our method is dependent on the radical extension of the roots of a random polynomial and it is tantalizingly linked to Galois Theory.

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**Student:** Yang Ping Zhang  
**Faculty:** Professor Urmi Ghosh-Dastidar  
**Department:** Mathematics  
**Presentation Form:** Lecture  
**Topic:** Biosurveillance and the Detection of an Outbreak

**Abstract:** Bio-surveillance is a process of detecting and monitoring disease outbreaks locally or globally. In this talk we will explore how statistics can be used to detect presence of Bovine virus diarrhea (BVD) in a cattle population or an outbreak of rotavirus in human population particularly among young children. The BVD virus is one of the potentially dangerous viruses that are hardest to prevent once it has set its first onset among the cattle population. This virus transmits through cattle feces and secretions from nose and mouth. It can also spread through aerosol droplets and direct contacts. Rotavirus is also one of the most common viruses among children that cause severe diarrhea, results in approximately 55,000 hospitalizations each year and globally deaths of over 600,000 children per year. Once exposed, the children show symptoms on average within 2 days. Symptoms include fever, frequent abdominal pain, watery diarrhea and vomiting for 3-8 days. A Bayesian analysis is used for outbreak detection. The talk is intended for general audience and the topics can be incorporated in classroom lectures.

## New York City College of Technology

**Students:** Frank Aline, David Chauca, Kelvin Nunez, Irfan Kalair,  
Jorge Paucar and Jose Pullutasig  
**Faculty:** Professor Satyanand Singh  
**Department:** Mathematics  
**Topic:** Construction of an Everywhere Continuous  
Nowhere Differentiable Function

**Abstract:** We will construct a continuous function that is not differentiable at any point. We will use the Maple software to construct a family of functions that closely approximates our function and rigorously justify our claims. We will briefly explore alternative methods to justify the existence of such a function from topological considerations and the Baire Category Theorem.

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**Students:** Thomas Cheung, Jonathan Encalada,  
Kenneth Flores, and Andrew Vaughn  
**Faculty:** Professor Holly Carley  
**Presentation Form:** Lecture  
**Department:** Mathematics  
**Topic:** Global Positioning System and Error

**Abstract:** The Global Positioning System is a system of satellites which emit signals. The signals are then picked up by a receiver on earth. The receiver then calculates, based on these signals, its position (longitude and latitude). Since the information gathered from the signals contains small errors, it is important to understand how such errors are reflected in the receiver's conclusion. We will give examples of the determination of the position of a GPS receiver given the signals of the satellites and results of numerical experiments will be presented which demonstrate the issues related to this error.

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**Student:** Sereta Scott  
**Faculty:** Professor Delaram Kahrobaei  
**Department:** Computer System Technology  
**Presentation Form:** Lecture  
**Topic:** ElGamal's and Schnorr's Digital Signatures

**Abstract:** In this paper, we present the topic digital signature, showing how Schnorr signature scheme, a variant of ElGamal's scheme is used to enhance the security of smart card technology. We show how Cryptographic algorithm method is used to generate signature and signature verification. Cryptography is about the prevention and detection of cheating and other malicious activities in data security. ElGamal's and Schnorr's Digital Signature Schemes are widely used because of the difficulty of solving Diffie-Helman key exchange, which involves the discrete log problems. In Schnorr's Digital signature scheme is based in the same principle as the ElGamal's except that Schnorr's method first signs the message then applies the hash function, and ElGamal's does the reverse of Schnorr's. Also Schnorr's Scheme minimizes the time to generate the signatures.



## New York City College of Technology

**Student:** Edwin Baidoo  
**Faculty:** Professor Delaram Kahrobaei  
**Department:** Mathematics  
**Presentation Form:** Lecture  
**Topic:** Efficient Signature Generation by Smart Cards

**Abstract:** One of the most significant achievements in the 20th century was the progression made in the various forms of communication. With the help of cell phones and computers and emails communication in modern times is a lot faster and somewhat efficient; however, with the significant contribution also come some consequences. For example, how can Alice send a message to Bob and still believe that no one has tampered with her message? As a matter of fact, how can Alice be assured that no one except Bob or the intended recipient is the only one with the capabilities and equipment to see and alter her message? This becomes an important query, especially with recent increase in global communication between banks and government?

Most of these questions and others are answered using techniques in computer science. More specifically it's done today with the help of digital signatures, which verifies the signature of the person who sent that message. In this case Bob accepts Alice's message if Alice's signature matches what he has on his file. Of course, it's not as straightforward as this little scenario, for the verification and signing of the signature requires advanced mathematical computation. This paper will discuss how smart cards are used in collaboration with digital signatures to provide security.

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**Student:** Lori Younge  
**Faculty:** Dr. Janet Liou-Mark  
**Department:** Mathematics  
**Presentation Form:** Lecture  
**Title:** Using Peer-Assisted Learning Workshops to Motivate Students in Precalculus

**Abstract:** How can students, no matter what class they are taking, overcome the challenge of not being able to understand the material that is being taught in class? How can students become interested in the material that is being taught in class? How can there be an increase in the number of students who do well in mathematics and science courses? Peer Assisted Learning workshops are designed using the Peer Led Team Learning (PLTL) model. PAL workshops provide students with the opportunity to work in teams with the goal of understanding and applying Precalculus concepts learned. Findings from this study will be presented.

## S-111, BIOLOGICAL SCIENCES & GEOLOGY

**Student:** Christina Badal and Jovanie Baldomer  
**Faculty:** Dr. Sharon Ellerton  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Service Learning with Homeless Children as a Honors Project

**Abstract:** By providing service learning to homeless children, we will attain a greater depth of knowledge in Anatomy and Physiology while sharing our time and knowledge to the local community. As a team, we will work together to think of creative and fun ways to teach the kids important topics in Anatomy and Physiology. Besides working with the kids, we will be working on case studies and developing one on our own. Case studies allow us to study Anatomy & Physiology in greater depth. In addition we will be keeping a log of what we do, and what we feel we have achieved. This is a course assignment associated with taking an Honors Contract for BI302.

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**Student:** Keebah Brown, Donna Hughes, Sojung Lee  
**Faculty:** Dr. Sharon Ellerton  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Service Learning as Peer Tutors

**Abstract:** The students will be performing a Service Learning program. They will be conducting tutoring sessions for the student community at the Queensborough Community College within their Learning Center. The topics that will be covered by the students will be 'The Respiratory System' and 'The Endocrine System'. They will be meeting to go over the topics with their mentor to make sure they have an understanding of the material. The students will schedule their time at the Learning Center during March 25 to April 7. As a result of this work, the students will gain a deeper knowledge of Anatomy and Physiology. This is a course assignment associated with taking an Honors Contract for BI302.

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**Students:** Kathleen Capogrosso and Hamel Duplan  
**Faculty:** Dr. Sharon Ellerton  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Service Learning as an Honors Project

**Abstract:** We will be engaging in a Service Learning program by meeting with our peer mentor, learning topics in advance thus enabling us to gain a greater level of comprehension of BI 302 material. We will then offer tutoring to students to supplement their coursework in Anatomy and Physiology II. We will each offer six hours total at the Student Learning Center. Through tutoring, we will reinforce and master our assigned topics while providing a service to our student community. We will gain greater insight into the process of scientific exploration through the analysis of case studies and eventually engage in creating our own. We will also maintain individual journals to inscribe and reflect on our studies, accomplishments and the impact the project has on each of us as well as the learning community as a whole. This is a course assignment associated with taking a contract in Honors BI302.

**Student:** Mariela Collasso and Grigoria Voulgaris  
**Faculty:** Dr. Bryn Mader  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Service Learning: Tutoring Students in Anatomy and Physiology

**Abstract:** The students learned about the Urinary and Reproductive Systems in depth so as to be able to tutor fellow students in the BI302 course (Anatomy and Physiology II). Using PowerPoint they will review the challenges they faced and share their personal experiences in helping others. This is a course assignment associated with taking an Honors Contract for BI302.

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**Student:** Felicia Lockard  
**Faculty:** Dr. Urszula Golebiewska, Dr. Sharon Ellerton  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Learning Through Teaching

**Abstract:** The student will be discussing the significance and experiences gained by teaching non-science major students. The importance of methodical preparations in order to instruct others will be discussed. Positive pathway to further learning provided by mentorship will be presented. Part of the service time was contributed to the demonstration of the organ systems of a fetal pig to non-science majors. Presentation will be paired with PowerPoint. Topic presented will be illustrated with instructional materials. This presentation is associated with the Service Learning Honors Contract for BI302.

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**Student:** Pasquale Pascullo and Valerie Moran  
**Faculty:** Dr. Bryn Mader  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Service Learning: Tutoring Students in Anatomy and Physiology

**Abstract:** The students will give an oral review of their Honors' experience over the past semester. They were required to learn about the Urinary and Reproductive Systems in advance of other students in the Anatomy and Physiology course (BI302) so that they would be able to serve as tutors to those students when those subjects were covered in class.

This is a course assignment associated with taking an Honors Contract for BI302.

**Student:** Janella Umali  
**Faculty:** Dr. Urszula Golebiewska, Dr. Sharon Ellerton  
**Department:** Biological Sciences and Geology  
**Presentation Form:** PowerPoint  
**Topic:** Learning Through Teaching

**Abstract:** The student will be discussing knowledge gained through tutoring fellow students. Part of the service learning involved helping colleagues during review sessions go over different anatomical models. Active participation during review sessions and actually helping fellow students improves knowledge of the course. Understanding that one will be counted on to provide answers and clarification certainly facilitates deeper learning of the material ahead of time. Topic presented will be illustrated with instructional materials

This presentation is associated with the Service Learning Honors Contract for BI302.



## S-112

### ART, BUSINESS & HISTORY

**Students:** Elias Akhtar, Pat Kumparatana, Natalia Maldonado,  
Laura Szymanski  
**Faculty:** Professor Glen M. Burdi  
**Department:** Business  
**Presentation Form:** Roundtable Discussion  
**Topic:** A Day in the Life of an Accountant

**Abstract:** This roundtable discussion will give the students an opportunity to convey their experiences of spending a day in the Accounting Departments of JPMorgan & Chase Co. The students will describe why they decided to participate in the project, their apprehension of doing so and the total experience. They will explain how they choose the company they visited and became acquainted with the work environment of a major corporation. They will discuss why it is so important for all students in all fields of study to experience the real work environment while continuing their education.

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**Students:** Alexandra Gilbert, Rohini Gupta, Richie Hroncich,  
Ka Wa Lau, Daniel Liu, Margaret-Ashley Valencia, and  
Hafsa Yakoob  
**Faculty:** Professor Edward Hanssen and Professor Christine Mooney  
**Department:** Business  
**Presentation:** PowerPoint Presentation  
**Topic:** Fed Challenge: The New Powers of the Fed?

**Abstract:** The Fed Challenge is a nationwide competition sponsored by the regional Federal Reserve offices, with the winner of each region competing in a national final competition held in Washington D.C. The competition promotes understanding of our Federal Reserve System among college students. College teams emulate the FMOC (Fed Monetary Operating Committee) which is the committee that determines periodic changes in the prime lending rate. This presentation by the Fall 2008 QCC Fed Challenge team of students will focus on the issue of declining interest rates of the past year as the Federal Reserve Bank continues to struggle with prospects of a slowing economy and the drag on recovery brought on by the housing market. The presentation will also include insights into how the team used ePortfolios to prepare for the competition.



**Students:** Alexandra Gilbert, Emeka Nwachukwu, Jackie Hackett,  
Stephanie Sandson and other members of the 2008-2009 Queensborough  
Community College (QCC) Mock Trial Team

**Faculty:** Professor Ted Rosen

**Department:** Business

**Topic:** Direct Examination of certain witnesses and other excerpts from the  
2008-2009 American Mock Trial Association Mock Trial Competition  
Case Entitled *Drew Walton v. Blitz News Network*

**Abstract:** Alexandra Gilbert, Chukwuemeka (Emeka) Nwachukwu, Jackie Hackett and Stephanie Sandson were four of the ten members of QCC's 2008-2009 mock trial team which competed in the Atlantic Coast Regional Mock Trial Tournament of the American Mock Trial Association (AMTA) that was held on February 27th through March 1st of this year at St. John's University. Of the 27 teams that competed in the Atlantic Regional tournament this year, all except QCC were four year colleges and universities. The tournament consisted of four rounds, in which each of the teams represented the plaintiff and the defendant twice. The QCC team competed against a composite team made up of students from various colleges and universities in the tournament, and teams from the City College of New York, Temple University and the University of Delaware.

The case involved a claim for defamation by a public figure based on the following facts. On September 24, 2006, Drew Walton, who was then a candidate for governor in the State of Midlands, participated in a gun control debate against Professor Lane Hamilton at the Midlands Civic Center. After the debate, the two became embroiled in an argument in the Civic Center parking lot. Shots were fired and Lane Hamilton was found dead in the parking lot, the victim of an apparent gun shot wound to the head. Within an hour, Blitz News Network (BNN) reporter Reagan Thomas – present at the Civic Center to cover the post-debate news conference – gave a live broadcast that implicated Walton in Hamilton's death. Walton maintains that Hamilton committed suicide. Hamilton's autopsy report concluded that the manner of death was consistent with both homicide and suicide. No criminal charges were filed against Walton. Walton has now brought a claim for defamation, arguing that BNN's statements during the September 24, 2006 broadcast falsely accused Walton of shooting Hamilton. BNN denies the allegations, asserting that its statements were truthful and its broadcast was proper.

Team members presented opening and closing statements, introduced evidence, conducted direct and cross-examinations and role played as witnesses in the mock trial at which two or three volunteer lawyers or law students presided as mock judges. Stephanie Sandson will conduct the direct examination on behalf of the plaintiff Drew Walton of Mickey McQuiggan (portrayed by Chukwuemeka [Emeka] Nwachukwu). McQuiggan is a Death Investigator with the Midlands City Coroner's Office and was one of the investigators who responded to the Midlands Civic Center on the evening of September 24, 2006.

Alexandra Gilbert will conduct the direct examination on behalf of the defendant Blitz News Network of Kit Berkshire (portrayed by Jackie Hackett). Berkshire is the President of the defendant BNN. [As a result of her portrayal of Kit Berkshire during the Atlantic Regional Tournament, Jackie was awarded an All-Region Witness Award, tying with two other students to receive the highest number of ranking points of all students who competed as witnesses in the Atlantic Regional – nineteen of a possible twenty ranking points.

This presentation fulfills part of the requirement associated with the Honors Contract for BU301.

## Kingsborough Community College

**Student:** Xiaoting Lau  
**Faculty:** Professor Valerie Sokolova  
**Department:** Art (Graphic Design Program)  
**Presentation Form:** Spoken and Visual Presentation –  
Projector/Printed Spreads  
**Topic:** This Isn't About Me. It's About You.

**Abstract:** In this presentation, I will be talking about my picture book “This isn’t about me. It’s about you,” an honors project that I did for an illustration class. This book can be seen as my own perception and interpretation of the American society in an art form (i.e. – cartoon). I came to the States two and a half years ago. The cultural differences have made a big impact on me. My verbal limitations in English did not stop me from trying to express myself and sharing my ideas with others. In order to create public awareness about some personal and social issues, I came up with an original typeface and an original cartooning style to present my ideas to the readers in visual language.

The readers shall not only enjoy the images of my illustration. More importantly, they get to know themselves better, know the society better. Because when we know better, we adapt better. When we adapt better, we survive better.

**Student:** Uttara Singh Girnar  
**Faculty:** Dr. Emily Tai  
**Department:** History  
**Presentation Form:** Lecture  
**Topic:** *The Little Clay Cart* by Sudraka (A Play in Five Acts)

**Abstract:** I intend to discuss *The Little Clay Cart* by Sudraka. I will discuss the background of the play, which dates to the Indian Subcontinent during the second century B.C.E. The play is about a courtesan in Mauryan dynasty and her journey to find love with a wealthy merchant. I will discuss the plot of the play and what it tells us about the role of courtesans in preserving the Classical Indian arts.

This presentation is part of the obligations associated with taking an Honors Contract for HI152.

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**Student:** Nadia Habib  
**Faculty:** Dr. Emily Tai  
**Department:** History  
**Presentation form:** Lecture  
**Topic:** Serving as an Intern at the  
Harriet and Kenneth Kupferberg Resource Center



**Harriet Kupferberg**

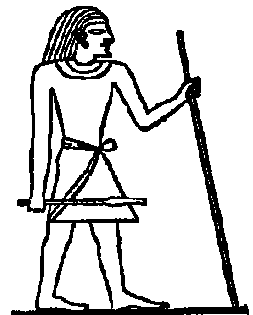
**Abstract:** I will speak about the individual I interviewed as an intern at the Harriet and Kenneth Kupferberg Resource Center. I will give some details about her life, and finally, I will speak about what I knew before and after I became a Holocaust intern. This presentation is part of the obligations associated with taking an Honors Contract for HI195.

**Students:** Richie Hroncich, Parbartie Khemraj, Rohini Gupta, and Stephen Focarola  
**Faculty:** Professor Edward Hanssen and Professor Christine Mooney  
**Department:** Business  
**Presentation:** PowerPoint Presentation  
**Topic:** Student Use of ePortfolios

**Abstract:** The primary purpose of having student e-portfolios is to engage the student throughout his or her academic career. By having an electronic space where a student can store and present academic achievements, the student gains a better sense of progress toward his or her academic goals. The use of ePortfolios has also allowed students to interact with faculty and one another beyond the classroom. In this presentation students will relate how ePortfolios have helped them achieve their academic objectives.

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**Student:** Patricia Miranda  
**Faculty:** Dr. Kathleen Wentrack  
**Department:** Art & Design  
**Presentation Form:** PowerPoint  
**Topic:** Egyptian Books of the Dead: History and Meaning



**Abstract:** Ms. Miranda's presentation examines Egyptian books of the dead. She will include a discussion of the history of these special books used in ritual burial practice and explain their iconographic elements and meanings. Ms. Miranda will elucidate the symbolism most common in these objects using a PowerPoint presentation with several examples of different scrolls.

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**Student:** Kimberley Ramrup  
**Faculty:** Dr. Emily Tai  
**Department:** History  
**Presentation Form:** Lecture  
**Topic:** The Laws of Manu

**Abstract:** I intend to discuss *The Laws of Manu* by sage Manu, giving both a general overview and the significance of the piece in providing insight as to women's roles in classical Indian society. In addition I hope to touch upon the values that these laws pertain and how that reflects on the role of modern day women.

This presentation is part of the obligations associated with taking an Honors Contract for HI152.



**Student:** Vanessa Verdugo  
**Faculty:** Dr. Kathleen Wentrack  
**Department:** Art & Design  
**Presentation Form:** PowerPoint  
**Topic:** Representations of the Body in Ancient Greek Art



**Abstract:** Ms. Verdugo has chosen to present a development of representations of the body in Greek art. She will begin with an analysis of examples of sculpture from the Archaic through the High Classical and end with the Hellenistic period. She will explain the social and historical context which produced these works. Her PowerPoint presentation will include examples from the collection of the Metropolitan Museum of Art, such as the *New York Kouros* and the *Old Market Woman*.

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**Student:** Jun Xiao  
**Faculty:** Dr. Kathleen Wentrack  
**Department:** Art & Design  
**Presentation Form:** PowerPoint  
**Topic:** Van Gogh and the Colors of the Night

**Abstract:** Vincent Van Gogh (Dutch, 1853–1890) attempted to paint night by light as was the focus of a recent exhibition at the Museum of Modern Art in New York entitled “Van Gogh and the Colors of the Night.” His procedure was to translate visual light effects with various color combinations onto the canvas. His subjects included many twilight paintings and drawings. The presentation will include four of his famous works presented using PowerPoint along with Van Gogh's personal letters about them. The works include *The Potato Eaters*, *Eugene Boch (The Poet)*, *Cafe Terrace at Night*, and *Starry Night over the Rhone*.



## WELL AREA, Music



**Student:** Marco Gutierrez  
**Faculty:** Dr. Joanne Chang  
**Department:** Music  
**Presentation Form:** Live Performance  
**Topic:** Sonata in D Minor

**Abstract:** The student will compose a sonata for guitar and violin using all of the material learned in class for the past two years. A sonata form, which was learned in class, consists of three parts, an exposition, development and a recap. In the sonata, the student will include advanced material such as different types of modulations and cadences, choral progression and techniques, such as pedal point or Alberti base. Chords such as Neapolitan chord and augmented six chords will be used as well. The final draft of the composition will be performed live.

This is a course assignment associated with taking an Honors Contracts in MU243.



# SCIENCE LOBBY

## ELECTRICAL AND COMPUTER ENGINEERING TECHNOLOGY

**Student:** Augustin Baez  
**Faculty:** Professor Vincent Stigliano  
**Department:** Electrical and Computer Engineering Technology  
**Presentation Form:** Lecture  
**Topic:** Binary Clock

**Abstract:** The purpose of the Binary Clock is to display the time of day. The binary clock project displays the time of day using the binary number system. The binary numbering system uses the same principles and methods as the decimal numbering system. The main difference is that binary system uses a base of 2, compared to the base 10 of the decimal number system. Each binary digit has 2 possible states. The binary number system consists of two numbers, 0 and 1. Although, the binary number system consists of two numbers it can be used to count from 0 to 15 using the formula  $2^{n-1} = 2^{4-1} = 15$ . The binary counting sequence is displayed as follows:

0000, 0001, 0010, 0011, 0100, 0101, 0110, 0111, 1000, 1001, 1010, 1011, 1100, 1101, 1110, and 1111.

This is a course assignment associated with ET510.

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**Students:** Andre Fishburne, Gladys Juca, Nicolas Martiny  
**Faculty:** Edward Marcinek, Jerry Sitbon, Professor Stuart Asser  
**Department:** Electrical and Computer Engineering Technology  
**Presentation Form:** Lecture  
**Topic:** Solar Energy

**Abstract:** The term “solar energy” refers to energy obtained from the sun. The energy travels from the sun to the earth in the form of light. In this form it falls into the general category of “electromagnetic energy”. When the energy reaches the earth, it can be captured by us and changed to other useful forms. In this project we used a solar panel to convert light energy into electric energy. We recorded data on the amount of electric energy we could obtain from the sun using a single solar panel under different weather conditions.

This is a course assignment associated with ET350.

**Student:** Oswaldo Noboa  
**Faculty:** Professor Stuart Asser  
**Department:** Electrical and Computer Engineering Technology  
**Presentation Form:** Lecture/Poster  
**Topic:** An Infrared Detection Circuit

**Abstract:** All modern TVs, VCRs, and DVDs, as well as other devices, use infrared light to control their functions. Infrared remote control devices produce a continuous coded stream of pulses at 37.9 kHz when any button on the module is pressed. These Infrared pulses are detected and decoded by a receiver and the appropriate function activated. In this project the coded stream is converted into a single pulse which is used to toggle a relay on and off. The coded information is lost. Only the fact that a button was pressed on the remote control unit is detected. The project has a relay output rated at 12VDC/10A or 240VAC/5A. In this project I connected an alarm siren to the output of the infrared detector circuit. A standard TV remote control is used to provide an infrared light source. When the TV remote is activated, it sends out invisible infrared light. The infrared detector circuit detects the presence of infrared light and turns on the alarm siren. The siren stays on until the TV remote is activated again. This second activation turns off the alarm siren. This is called toggling.

There are four parts to this project. The main part is the infrared detector circuit. The output section is the alarm siren. The input section utilizes any standard remote control. The final part is the power supply which provides the power for the infrared detector circuit and the alarm siren. It could also be used to provide an input source of infrared light. This could also be accomplished with a simple LED circuit. I found this to be an interesting project because I learned how the infrared detector circuit works, and how it is used in everyday life.

This is a course assignment associated with ET140.

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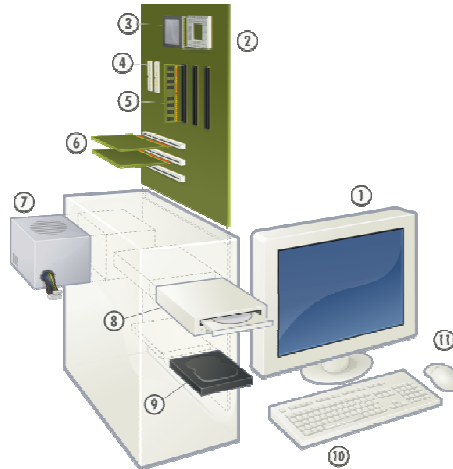
**Student:** Edmund Williams  
**Faculty:** Mr. Raymond Kendall  
**Department:** Electrical and Computer Engineering Technology  
**Presentation Form:** Lecture/Poster  
**Topic:** Solar Powered Sign

**Abstract:** Solar panels are being used today as an alternative source of energy for many different applications. For example they are used for many outdoor lighting and sign applications. This project involves the powering of an electro- luminance sign with a solar panel. The sign is made of low power electro-luminance wire and which was evaluated to determine how well the solar panel can power the sign.

This is a course assignment associated with ET350.

**Students:** Nicholas Suarez, Ilya Rubenov  
**Faculty:** Professor Hamid Namdar, Professor John Buoncora  
**Department:** Electrical and Computer Engineering Technology  
**Presentation Form:** Demonstration  
**Topic:** Computers and Microprocessors

**Abstract:** Computers are devices that compute numbers and data. When a computer needs to compute data it must perform three functions, they are read or input the data, process the data and output the data. The microprocessor has within it registers, control unit and an arithmetic logic unit (ALU) which performs addition, subtraction, comparisons and logical functions. In this demonstration we will show how software is used to control an electronic device using the microprocessor and the computer.



This is a course assignment associated with ET560.

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**Students:** Jose Meono, Edmond Williams  
**Faculty:** Professor Hamid Namdar, Professor John Buoncora  
**Department:** Electrical and Computer Engineering Technology  
**Presentation Form:** Demonstration  
**Topic:** Boe-Bot Robot and Robosapien V2

**Abstract:** Robotics is used in many areas including auto, manufacturing and medical industries. Building a robot involves electronics, programming and problem solving skills. In this presentation you will be introduced to a Boe-Bot Robot and Robosapien V2. The Boe-Bot has a microcontroller with integrated sensors, allowing it to detect obstacles, like the edge of a table and react accordingly. Once the robot senses the drop, it will send a signal back to the microcontroller and turn the robot around preventing it from falling off. The future self-driven cars are design around this technology. Programs that determine the action it takes are written on a PC and downloaded directly in to the microcontroller using a serial port. The Robosapien V2 is capable of full range of motion, ability to pick up, drop and throw things. Interaction for this amazing technology is made possible by vision color system, stereo sound detection system, "laser" tracking ability which is controlled by a remote.

This is a course assignment associated with ET502.

## S-414 CHEMISTRY

**Student:** Tresa Ambooken  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Diamond Synthesis

**Abstract:** Diamond synthesis is a field of growing technological advances and importance. Natural diamonds are materials that are extremely expensive, but also very useful in several ways, due to its unique structure and composition. Because of this, synthesizing diamonds in laboratories is an alternate way to obtain diamonds almost exactly like natural diamonds, but for a tiny fraction of the cost. The main methods of synthesizing diamonds are the CVD (Chemical Vapor Deposition) method and HPHT (High Temperature High Pressure) method. Both these methods produce diamonds that are so similar to natural diamonds that it's nearly impossible to tell the two types of diamonds apart from each other. Synthesized diamonds are an affordable way to buy diamonds not only for jewelry, but for use in a variety of other purposes, such as electrical work and mechanical work.

This is part of the course obligations associated with Honors CH152.

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**Student:** Christina Badal  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Gecko Grip and Nanotechnology

**Abstract:** Nanotechnology is based on the study of the science and engineering of atoms and molecules from 0.1 nanometers to 100 nanometers. On this scale, atoms and molecules have unique properties. The study of manipulating these atoms and molecules can lead to so many promising applications in the future. An application that I was interested in is an adhesive that can be made to work just as the gecko grip material. The gecko grip is an incredible biological feature of the lizard that may be the key to future applications. The material that allows the gecko to climb many surfaces against the force of gravity has been studied by many scientists. Scientists are interested in mimicking the material that the gecko lizards have. Due to nanotechnology, scientists were able to create a material ten times stickier than a gecko's feet. Artificial setae are created by growing nested carbon nanotubes on a silicon wafer. Carbon nanotubes have extraordinary strength and can be used in plenty applications. Details of gecko grip and nanotechnology will be discussed.

This is part of the course obligations associated with Honors CH152.

**Student:** Ti-Ya Chang  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Fingerprinting

**Abstract:** In forensic science, fingerprinting is one of the major researches because it plays a very important role in the investigation and the determination of the suspect. Since the first Fingerprint Bureau opened 111 years ago, the fingerprint process has developed much. Fingerprint powdering and chemical processes, such as silver nitrate method which reacts with sodium chloride, iodine method which reacts with oil, ninhydrin process which reacts with amino acids, and cyanoacrylate process, etc, are the popular ways to show the presence of fingerprints. In this presentation chemistry of fingerprinting will be discussed.



This is part of the course obligations associated with Honors CH152.

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**Student:** Mohammed S. Hossain  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Chemistry of the Earth's Atmosphere

**Abstract:** The earth's atmosphere plays a very important role for all living things in the earth. Only earth has a chemically active and six-layer atmosphere. The earth's atmosphere is a thin gas layer made of lots of different kinds of gases like  $O_2$  and  $N_2$ . Greenhouse gases play a very important role in the atmosphere. The properties of the atmosphere and greenhouse gases will be discussed.

This is part of the course obligations associated with Honors CH152.

**Student:** Krina Kadakia  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Chemistry behind Toothpaste and Antimicrobial Mouth Rinses

**Abstract:** The oral hygiene products such as toothpaste (*Crest Pro Health* and *Colgate*) and antimicrobial oral rinses such as (*Listerine* and *Crest Pro Health*) are made out of active chemical ingredients to prevent gum disease, halitosis (bad breath) and much more. The active ingredients listed on the Listerine bottles are thymol which is an antiseptic, methyl salicylate is cleaning agent, and menthol is local anesthetic. Scientifically speaking, thymol is extremely soluble in alcohol and is also known as isopropylmethylphenol, methyl salicylate comes from a natural plant product, and menthol is waxy crystalline substance widely used for minor throat irritation. The active ingredients in Colgate toothpaste are sodium fluoride and triclosan. Sodium fluoride is thought to strengthen teeth through the formation of fluorapatite, a component of tooth enamel. Triclosan is an organic compound which is widely used in antibacterial and antifungal agents. The chemistry of toothpastes and mouthwash will be discussed.

This is part of the course obligations associated with Honors CH152.

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**Student:** Eunchul Kim  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Organic Light Emitting Diodes

**Abstract:** The field of organic electronics deals with electronic devices made with organic compounds that conduct electricity. Since the discovery of organic polymer that conducts electricity, impressive advancements have been made in the field. One of the results is the development of Organic light emitting diode (OLED). OLED is a light emitting diode that uses electroluminescent and conductive organic compounds. Display devices based on OLED have started to be commercially available recently, after very active and rapid development in the industry. Though there are disadvantages that need improvement, the advantages that OLED displays have over other types of displays make it easy to see that the technology will dominate the market soon.

This is part of the course obligations associated with Honors CH152.



**Student:** Keum Ji Lee  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** The Purpose of Gastric Juice and How It Affects Daily Metabolism

**Abstract:** During general chemistry laboratory hours, all students are told to handle hydrochloric acid with special care; however, it is the gastric juice that we have in our stomach (though it's less concentrated). Throughout this presentation, how the strong acid can exist in the stomach and what is the main purpose of gastric juice will be covered. Also, how it affects our metabolism and daily lives such as indigestion and heart burns and what could cause gastric disorder. In addition to that, how important it is to have right amount of gastric juice in the stomach and what could happen when excessive or limited secretion occurs. This is part of the course obligations associated with Honors CH152.

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**Student:** Tanya Mavrou  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Green Chemistry

**Abstract:** Green Chemistry is the design of chemical products and processes that will reduce or even eliminate the use and the generation of hazardous substances. It is the chemistry of the future and the chemistry of today. It ensures that both processes and end products are clean and safe. They provide an increased performance and increased value while meeting all goals to protect and enhance the human health and the environment. Green chemistry is beneficial in many ways, it is economical, reduces waste, less toxic to organisms & the ecosystem, reduces the use of resources & energy, safer products and most important, protects human health and we live in a better environment. This is part of the course obligations associated with Honors CH152.

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**Student:** Lei Nie  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Food vs. Calories

**Abstract:** Food and diet are the basic requirements for us human beings to survive everyday. We need to eat and drink to keep our body in regular function. But how we eat and how much are we suppose to eat to keep our body in best condition to work are the issues of everyone's concern nowadays. Probably most of us have realized that on the packages of food we purchase from the supermarket and grocery store, there is a chart with nutritional facts. Calories are units that are used to measure energy. The Calories you see on food packages actually are kilocalories, or 1,000 calories. It takes 3,500 calories to equal one pound of body weight. How much energy is given out from a food and how to find it will be discussed. This is part of the course obligations associated with Honors CH152.

**Student:** Eva Maria Santos Tejada  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Radiation Therapy

**Abstract:** What do cancer, radiation, and technology have in common? The links between the three are quite extraordinary. Cancer is a disease that accounts for 13% of all deaths in the world (Delfino and Day 1). The disease has an impact on patients, friends and their love ones. According to the definition at the online encyclopedia, Wikipedia, "radiation is energy that travels in the form of waves through radiation therapy. Through radiation therapy, radiation is used to stop, slow or cure the growth of cancer. With technology, radiologists can treat cancer patients through radiation and special computerized imaging". Radiation is one of the main forms of energy. In today's environment we are only familiar with the basic types of radiation. These types are in the form of light, radio, televisions, etc. But there are more powerful forms of radiation that are both dangerous and beneficial to human life. This is part of the course obligations associated with Honors CH152.

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**Student:** Sabrina Torchon  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Carbonated Beverages

**Abstract:** Carbonated beverages are drinks that release CO<sub>2</sub> under normal conditions of temperature and pressure. Club soda is artificially carbonated, and contains ions such as bicarbonate, chloride, phosphate, citrate as well as flavoring agents. They are acidic and may be harmful when ingested in excess. The pH of most carbonated beverages is 1-2.5 which is very acidic. Chemistry of carbonated beverages will be discussed.

This is part of the course obligations associated with Honors CH152.

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**Student:** Karen Veeraswami  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** The Chemistry of Water

**Abstract:** The implications of water and gas hydrates are ones that are important to energy provision. Essentially, the properties of water enable it to form a hydrate with methane, thus trapping the methane within the molecule. If this natural gas is recovered, there is enough to heat more than 100 million homes for 10 years. Thus, the extraction of the methane from the gas hydrates is a potential possible energy resource and is an alternative to other resources. Details of physical and chemical properties of water and gas hydrates will be discussed.

This is part of the course obligations associated with Honors CH152.

**Student:** Josephine Welle  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Pharmaceutical Application of Buffers

**Abstract:** Buffers are very important in maintaining the body's physiology. All the enzymes in our body have an optimal pH at which they function. The optimal pH of the enzymes involved in the breaking down of proteins in the stomach, for example, function best at pH 1-2. This pH, however, is low for that of the small intestine. This problem is solved by the bicarbonate ions ( $\text{HCO}_3^-$ ) present in the pancreatic juices secreted by the pancreas. The bicarbonate buffer discussed above is known to be very important in maintaining the body's physiology. The function of buffers in the human body will be discussed.

This is part of the course obligations associated with Honors CH152.

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**Student:** Chi Kwan Wong  
**Faculty:** Dr. Moni Chauhan  
**Department:** Chemistry  
**Presentation Form:** PowerPoint  
**Topic:** Carbon Nanotubes

**Abstract:** Carbon nanotubes are molecular scale tubes of graphitic carbon with outstanding properties. They are among the stiffest and strongest fibers known, and have remarkable electronic properties as well as many other unique characteristics. These cylindrical carbon molecules have novel properties that make them potentially useful in many applications in nanotechnology.

This is part of the course obligations associated with Honors CH152.