

EXAMPLES OF HONORS PROJECTS

ART/ART HISTORY CLASSES

Art History I/ II: Created timeline of artworks with related information about each from 1300 AD to 1900 AD including maps for each area of the world where the period or style was centered as well as new technology, religious beliefs, economic and political beliefs, and other important events of each period.

Foundations of Ceramics:

- Created two human figures in clay, making them anatomically correct and expressive, but with different techniques. Written paper about different glazing and firing techniques used.
- Research into, and the production of, four sets of nesting dolls using the life cycle of a frog as the subject.
- Study how ceramics might be used as a mental health therapy.

Fundamentals of Glass: Made paperweights with colored waves inside after designing them through sketches.

Glass II: Developed a mixed media project of mainly ceramics and cast glass plus a few other materials. Built the ceramic and cast the glass from scratch.

BUSINESS CLASSES

Advanced Financial Management: Complete case study financial analysis of Conch Republic Electronics including IRR, net value, payback period, income, balance sheet, and cash flow from assets, to creditors, and stockholders.

Marketing: Filmed and edited a commercial for a product or service, using the 4 P's of Marketing as a guide for promotional techniques.

COMMUNICATIONS CLASSES

Interpersonal Communications: Did a PowerPoint presentation that was uploaded as a podcast to Moodle discussing how technology has changed interpersonal communications.

CRIMINAL JUSTICE CLASSES

Criminology:

- Wrote a scholarly paper in APA format discussing the kinds of crimes attached to specific genders and theories exploring the reasons for the discrepancies.

Policing in America:

- Wrote a scholarly paper about the new roles of law enforcement since the terrorist attacks on September 11, 2001.

Terrorism/Counterterrorism:

- In depth study of nuclear terrorism.

Introduction to Criminal Justice:

- Research into the standard procedures for criminal charges and the court system. Emphasis on bias and how to counteract those biases.

DIGITAL MEDIA CLASSES**Digital Photography:**

- In depth exploration of fashion and street photographers from the 1960's with written critical analysis.

Fundamentals of Graphic Design

- In-depth color theory study of the Keystone student population and color psychology. Poster designed, created and presented at the Undergraduate Research Celebration.
- Created a process report for a service learning system design project (brochure, poster, webpage, and signage).

EDUCATION/SPECIAL EDUCATION CLASSES**Characteristics of Exceptional Learners:**

- Researched and wrote paper and created PowerPoint on how special needs children are mainstreamed compared to how mainstreaming was handled in the past.

Cognition and Learning:

- An in-depth analysis of how trauma and mental illness affect development using Erickson's stages.

Curriculum and Methods: Mathematics:

- Demonstrated and presented in a lesson, algebraic thinking, patterns, 2-D shapes, and symmetry using a symmetrical totem pole project.

Curriculum and Methods: Social Studies:

- Created a hands-on social studies game for elementary age children

Classroom Management:

- Research on a range of education theorists including Skinner, Redl, Wattenberg, Glasser, Gordon and Ginott. Formal presentation of the findings.
- In -depth research on the effects of positive discipline in the classroom.

Early Literacy Foundations: Student presentation outlining the various forms of literacy assessment including definitions, explanations, examples, and what the distribution looks like to various constituencies.

ECE Methods/Science: A student created an entire Mock Science Fair with 10 science - based projects for young children centered around the PA common core science standards.

Family Partnerships:

- Research into, and creation of a presentation on handling issues and resources for underprivileged families related to public education.

Transition Planning:

- Creation of a lesson and presentation using the real-world skills of counting money and giving correct change.

ENGLISH/LITERATURE CLASSES**American Literature I and II:**

- Researched Emily Dickinson and created a film about Emily Dickinson's relationships and work as a poet.
- Researched, developed and presented a class lesson on Langston Hughes short story, *Thank You Ma'am*.

College Writing II:

- In-depth analysis of "A Good Man is Hard to Find" by Flannery O'Connor.

Introduction to Creative Writing:

- Wrote and revised fifteen original poems and made them into a chapbook.

Introduction to the Novel:

- Wrote an APA formatted 8–10-page paper taking the feminist critical perspective of the novel, "Things Fall Apart."

HISTORY CLASSES

Making of the Modern World:

- Research using scholarly sources of German culture in post WWI period as connected with the rise of Nazism.

US History I/II:

- Researched the Civil War battle of the Petersburg Crater and presented the information on a website that provides context, statistics, and details about the battle.
- Advanced readings and discussion of articles related to specific events in early American history.
- Scholarly analysis of racial stereotypes in the movie *The Help*.

US History Since 1945:

- Advanced readings and discussions using scholarly articles related to the space race and Cuban missile crisis in order to add to the understanding of historiography in the student's teaching portfolio.

Women's History in America:

- Advanced readings and critical analysis of several topics with 1-2 page reflection papers for each and one-on-one discussions of the material with the instructor 4 times during the semester. Student must articulate the author's arguments, use of evidence, and historiographical position.

MATH CLASSES

Communication in Mathematics:

- Researched contradictions and controversies in math, created a PowerPoint presentation of the results, and presented to class.

Statistics/Statistics & Research:

- Study of sleep quality in the elderly population using existing data sets of Chinese hospital patients. Research presented at the Undergraduate Statistics Research Conference.
- Performed a statistical analysis of two high school football teams covering a range of five to ten years and presented project to the class.
- Conducted survey and study using advanced math tactics to analyze self-graded mental health of athletes and non-athletes by sport and gender.

Statistics for Social & Behavioral Sciences:

- Researched, with graphs and other forms of statistical analysis, casino games.

SCIENCE CLASSES

Anatomy & Physiology/General Physiology:

- Research on what prosthetics are, the history behind them, their function, how they are made with specificities of different kinds, and new advances in technology today compared to the past.
- Case Study on the effects of eating disorders on the body and cells.
- Documentation and analysis of the injuries sustained in the “Home Alone 3” movie with complications and treatments.
- Study of anemia and its subtypes, and correlations between blood types and risk.
- Create clay models of organs in each of the 12 systems with definitions and functions.

Analytical Chemistry:

- Develop test strips to measure the cleanliness of air using Methylene blue.
- Designed and built an effective Reverse Osmosis Water Filtration System and tested it against the basic Carbon filter system.

Botany:

- A scientific study of, and the development of a “management plan” for the invasive plant species Pachysandra.
- Observation and data collection of lichen on campus trees to develop an understanding of preferable wood types for differing species.

Biochemistry II:

- Developed and executed several dry runs for a laboratory exercise that is now used in the Biochemistry lab course having to do with breaking down carbohydrates.
- Developed and executed laboratory exercises having to do with lipids to be used in future biochemistry laboratory classes.
- Using iron sulfate and potassium ferricyanide to precipitate Prussian Blue powder, a student then made oil paint and painted an original work using the pigment.

Biology:

- Acquired blood types of parents and grandparents on both sides to attempt to determine student’s own blood type. Family members’ blood types were applied to a pedigree to find genotype.
- Examination of strategies used in the restoration of species to parts of the country where the populations were native but were ultimately severely depleted or eliminated from the ecosystem. Examples would be the re-introduction of wolves to Yellowstone or Elk to Kentucky.
- A “call count” of the Cedar Waxwing bird using recordings of bird calls on our back campus to study the population over time.

- Study of Phospholipids – types and functions with poster presentation.
- Design and construction of cell models with reference keys and labels.

Cancer Epidemiology:

- In-depth research on Pancreatic Cancer, including the symptomology, history, diagnosis, and possible treatments.

Earth System History:

- Analyzed two fossil embedded stones found in Bear Swamp area of Bangor, PA and summarized findings with sketches, traces, photos, summaries of depositional environment and age, summary of fossil identification, summary of stone classification, grain texture, shape and size, summary of deformation, statistical analysis of fossil size, type, and orientation, summary of fossil formation within the stones, and located and mapped fossil origins within the Bear Swamp area.

Environmental Science/Environmental Chemistry:

- Data analysis of Stroud Landfill water quality using Piper diagrams.
- Created a composting management plan and proposal for Keystone College.

Environmental Ethics:

- Researched and wrote paper on the ethics of human population issues and resources pressure.

Environmental Law:

- Read a book not required for class, *Silent Spring* by Rachel Carson, and wrote a paper discussing the topics the book raised and the government's role in regulating human activity in order to protect the environment.

Forensic Science I/II:

- Research how forensic anthropology techniques are used to identify victims and how it is used in court.

General Biology I/II:

- Acquired blood types of parents and grandparents on both sides to attempt to determine student's own blood type. Family members' blood types were applied to a pedigree to find genotype.
- Examination of strategies used in the restoration of species to parts of the country where the populations were native but were ultimately severely depleted or eliminated from the ecosystem. Examples would be the re-introduction of wolves to Yellowstone or Elk to Kentucky.

- A “call count” of the Cedar Waxwing bird using recordings of bird calls on our back campus to study the population over time.
- Collected data on a sample of coyotes taken during a hunt from February 2017. Data collected included weight, sex, county, and whether or not females are in heat during the time of harvest. Pulled teeth to count growth rings and tested hypothesis that there will be more coyotes older than two years in heat.
- In-depth research on biofuels and bio technology.

Genetics:

- Determined which genetic traits are passed down to the student by father and mother, and created extended pedigree map of family traits.
- Comparison of cancer genomes using CBIOPortal datasets.

General Physiology:

- Research in depth and present on the physiology of an ankle sprain.

Immunology:

- Case study on a common infection and immune system disorder.

Instrumental Analysis:

- Using acid/base titration and then back calculating concentrations of calcium and magnesium ions over time, a student tested the hardness of the water in the Tunkhannock Creek.

Infectious Disease Epidemiology:

- Studied Zika virus (what it is, history of the disease, methods to control its spread) and presented at a table during Public Health Week to educate the public.

Introduction to Ecology:

- Researched in the field and online to discover how parasitic insects affect white ash and hemlock trees. Interviewed participants in field work and wrote a paper about research.

Introduction to Field Biology:

- Studied and presented on commonly used methods for snake collection.

Lifecycle Nutrition:

- Tracked food choices for eight weeks, made healthy changes to student’s diet to study effect on weight, sleep, and energy level and wrote a paper about the findings.

Mammalogy:

- A scholarly study of the Blue Whale – why it is crucial to the ocean's ecosystem, threats it currently faces, and how scientists can help to mitigate the population decline in this species.

Microbiology:

- An in-depth study testing the antimicrobial properties of CBD oil on common skin and intestinal flora using a spread plate and minimum inhibitor concentration methods.

Microbial Genetics:

- An in-depth study exploring the relationship between bacteria and their host's diet.

Newsworthy Topics in Biology:

- Researched and created PowerPoint on the extinction of bees.

Nutrition:

- Research on the best and worst diet plans available and the creation of informational pamphlets for each diet.
- Analysis of diet and nutrition of in-season Field Hockey players using food tracking apps like MyFitnessPal or Loselt.

Organic Chemistry I/II:

- Completed a lab on six different compounds with carbon in them, finding the UV spectrums. Wrote full lab report.
- Used chromatography techniques to separate dyes in drinks from The Grill and used Rf values from chromatography paper to determine what color dyes are in the drinks. Wrote a paper about the procedure presenting findings.

Ornithology:

- Use of acquired data from bird collection and banding to analyze bird diets using all proper state and federal permits for such collection.

Public Health/History of Public Health:

- Analysis and discussion of the public health response to the fictional book, H2O by Virginia Bergin.
- An in-depth study of homelessness as a public health issue.
- Research into the etiology, transmission, spread and end of the pandemic of bubonic plague during the Middle Ages.

SOCIAL & BEHAVIORAL SCIENCES CLASSES:

Adulthood and Aging:

- Studied volunteer firefighters in order to assess generational differences in perception of motivation and challenge.
- In-depth research on “Shinrin-Yoku: the Health Benefits of Forest Bathing.”

Cognitive Psychology:

- Read book about consciousness and researched some of the concepts of the book, explained discoveries.

General Psychology:

- Designed and created a pamphlet providing statistics, facts, tips, and insights into how students’ sleep affects college performance.

Introduction to Cultural Anthropology:

- Research how chimpanzees have a culture, how their tools and knowledge have grown within that culture, and how aspects of their culture have changed human perceptions of these primates.

Introduction to Sociology:

- Researched, created, and presented a thirty -minute lecture to class on Marriage and Family.

Developmental Psychology:

- Wrote a ten -page paper on the life of student’s great grandfather, analyzing his life and reflecting on how events in his life lead to current health status.
- Researched, created, and presented a PowerPoint presentation on the psychology of athletes who were dealing with post-traumatic stress after sport-related injury.
- Research on post-partum depression, lack of care for the condition and ways to improve treatment.
- Study how neglectful parents may affect their children’s development.

Forensic Psychology:

- Conducted an in-depth analysis of a particular serial killer focusing on the forensic psychology exhibited in the case, specifically the evidence and profiling used.

Psychology of Adolescence:

- A study that identifies, explores and explains the correlation between social media and perceptions of body image.

Psychology of Trauma:

- A study investigating the correlation between past trauma and the effects of the pandemic on adult depressive symptoms.

Sport Psychology:

- Conduct interviews with coaches and players using questions to study motivation, and create a podcast from the material.

SPORT & REC CLASSES**Legal Issues in Sport:**

- Researched historical incidents and wrote paper on how sports can have criminal actions in them then presented to the class.

Sport Public Relations:

- Created a web feature(s) for the KC Athletic web page using athlete interviews.

Sport Marketing & Promotion:

- Research and write an 8–10-page paper exploring the marketing concepts of market share, target market segmentation, market behavior, and market research through the lens of professional football in Los Angeles.
- Develop a marketing plan, SWOT analysis, advertising plan, mission statement, goals and objectives for a Major League baseball team.