

Model Capstone Proposals

1. Project Title: Peace Economics & the Israeli-Palestinian Conflict

Course Name: EC-375

Project Description: For my Honors Forum Capstone, and as a culmination of my Economics studies, I will be writing a thesis on Peace Economics and the Israeli- Palestinian conflict. Specifically, I will be addressing the economic benefits of peace, like a peace dividend, and the circular relationship between economic development and peace.

This paper truly feels like the perfect culmination of my experience here at Skidmore, both academically and in my extra-curricular involvements. I have devoted a large portion of my academic studies as well as a majority of my Honors Forum involvement to the Israeli-Palestinian conflict. For two classes, I created an Honors Forum add-on where I devoted additional study and application of the content of the class to studying Israel and the issues confronting Israeli society. In my Honors Forum add-on for "Introduction to International Affairs," I wrote 4 separate papers, each devoted to an IA cluster and about a topic within Israeli society, which added up to a 360 degree look at Israel. Specifically, I studied settlements for the political cluster, kibbutzim for the economic cluster, the Dead Sea for the environmental cluster, and the religious-secular divide for the cultural cluster. In my Honors Forum add-on for "Economics of Development," I doubled the term paper length where I studied in-depth the barrier to development for the Palestinian Territories. This paper has provided me with a significant background to build my current thesis assignment.

Outside of the classroom, I have devoted extensive time and energy learning and teaching about issues relating to Israel. For my

Honors Forum Citizenship project, I brought a delegation of Israelis to Skidmore's campus to show the diversity of background and perspectives that make up Israeli society. This event launched a series of dialogues and meetings on Skidmore's campus regarding interfaith relations and the Israeli-Palestinian conflict. Skidmore's campus is still feeling the effects of this project, as students involved have now started a J Street chapter on Skidmore's campus. This citizenship project was a catalyst for me as well to continue exploring the complexities of these issues. First, it led me to participate in Rick Chrisman's Islam and the West course where I dialogued with Muslim students in the Middle East online. Second, it led me to take a semester off from Skidmore and intern at a peace organization in Israel. As an intern at Peace Now this past fall, I had the unique opportunity to witness this conflict on the ground and learn and gain incredible insight about what I had spent my past semesters learning at Skidmore.

Now, as a culmination of my studies at Skidmore, I am applying everything that I have learned through my Honors Forum studies and experiences to my Economics thesis. I cannot be more excited to be applying my passion for pursuing peace and studying the Israeli-Palestinian conflict to my interest academically in Economics.

2. Descriptive title of your capstone project: The Generic Drug Industry and Patient Care Access in the Developing World
Course name and number: IA376-001

Project description: This semester, I will complete my senior capstone in International Affairs under the guidance of Professor Ockali. In the IA senior seminar course, I will complete a research paper on patient access to lifesaving pharmaceutical drugs with regard to the generic drug industry and the current global patent system. This research paper will be twenty-five to thirty pages in length and will act as a culmination of my studies here at Skidmore by incorporating the knowledge and skills I developed from

Honors Forum courses and from courses in International Affairs.

This research paper will explore some of the most pressing issues in the field of innovation and patent protection for pharmaceutical medicines around the globe. Specifically, my research will look at examples in India, which is often referred to as the pharmacy of the developing world. As an example, the Indian Supreme Court recently rejected a patent application on a leukemia treatment developed by Novartis. This particular case has important implications in the field since the Court's decision allows Indian companies to continue producing the generic version of the drug. In my paper, I want to thoroughly explore the Indian generic drug industry and how and if it has been successful in supplying generic drugs to patients in developing nations, and hypothesize about the future of the international patent system. My research process will include studying international court cases as well as international and national patent law, relevant law review articles, and scholarly journal articles. I will then present this paper, along with my senior seminar classmates, in mid-April.

The knowledge and writing skills I have developed through Honors Forum will be especially useful while writing this paper. During my junior year, I enrolled in an Honors Forum course entitled "The Human Organism." The research and small group discussions in which I participated in the honors section of the course inspired me and are very much related to the topic of my senior capstone. In "The Human Organism" honors section, our class explored patient access to vaccinations. My research on that subject and related class discussions are what sparked my interest in this increasingly important ethical dilemma. While the United States and other nations have developed intellectual property rights to provide incentives for people to innovate, those rights have given monopoly protection to pharmaceutical companies and consequently, patients in developing nations have been neglected access to these medicines. Furthermore, in "The Human

Organism,” I had the opportunity to complete Honors worthy writing on the subjects about which we studied. Thus the skills and knowledge I learned in that course will be very useful during this project.

This research paper will also enhance and build upon my studies at Skidmore as an International Affairs major. Specifically, this research topic incorporates a variety of areas including economics, business, government, and law, all of which I have studied

over the past three years in my major. One upper-level business course that was particularly influential in my decision to research this topic is “Intellectual Property in the Global Economy.” That course integrated a variety of areas in which I am interested and did so from an international perspective. Thus in researching the global implications of the generic drug industry and international patent system, I will directly build upon a variety of courses I have taken at Skidmore.

While completing this capstone, I will incorporate the research and writing skills that I developed through the Honors Forum and from my other undergraduate courses. I anticipate the final paper will be both well written and comprehensive. This research paper is also relevant to me because I will begin law school in the fall. Having the opportunity to complete a final research paper on intellectual property law from an international perspective will thus serve as a culmination of my undergraduate studies and as a transition into my graduate education.

3. Descriptive title of your capstone project: Analysis of Sediment-bound Heavy Metals in Relation to Particle Size and Geographic Site Distribution in the Kayaderosseras Creek Watershed

Course name and number: CH385

Project description: Heavy metals can enter aquatic systems through terrestrial runoff and can accumulate in stream and lake

sediment where they may be available for organismal uptake. Since heavy metals tend to biomagnify as they move up the food chain, small concentrations in plankton and fish can lead to significant health impacts in humans and other mammals. An understanding of aquatic heavy metal concentrations and potential sources of these metals is therefore useful in evaluating the health of the ecosystem. While the Kayaderosseras Creek watershed has been studied extensively in relation to aquatic nutrients, major anions, and major cations,¹ sediment-bound heavy metals in this watershed had not been investigated until last semester.

In the fall, my advisor, Judy Halstead, and I collected sediment samples from eight previously chosen stream sites and two lakes within the Kayaderosseras Creek watershed. Concentrations of heavy metals in the sediment are dependent on particle size, and heavy metals are known to often accumulate in the finest fraction (< 63 μm) due to increased surface area.² In order to test this hypothesis in the Kayaderosseras Creek watershed, I separated the sediment into four size fractions and analyzed each fraction of sediment from each site for total concentrations of several heavy metals. In addition to analyzing heavy metal concentrations in relation to particle size, we used previously collected land-use data to determine whether a correlation existed between heavy metal concentrations and urban density. Our results suggested that, consistent with the literature, the smallest sediment size fraction contained the greatest concentrations for most of the heavy metals studied. Land-use analysis to date indicate no significant relationship between heavy metal concentrations and urban density suggesting that, if there are anthropogenic sources of these heavy metals, the sources are point sources rather than non-point sources. However, these results are based only on multiple instrumental measurements of single samples.

This semester, we plan to continue to analyze fall semester data and repeat last semester's work to establish reproducibility. I will

test multiple replicates of each sediment size fraction from each site for total concentrations of heavy metals, which should give a more reproducible indication of total heavy metal distribution in the watershed sediment. However, the potential for uptake – and consequently the toxicity toward organisms – is dependent on the speciation of the metal, not solely on total concentrations. We will therefore also investigate the bioavailability of heavy metals by performing sequential extractions whereby the sediment is treated with increasingly strong reagents. In doing so, we will determine to what extent heavy metals in the sediment are potentially harmful to aquatic organisms.

By the end of the semester, I will write a comprehensive thesis which will be a culmination of this yearlong research project. The thesis will not only serve as a tool for future students who wish to continue this research, but will encourage me to draw upon the skills I have learned throughout my time at Skidmore in Honors Forum and Chemistry. I will need to merge both my scientific writing skills and the knowledge I have gained in this field of research in order to write a cohesive thesis. In addition, I will be presenting this research on two occasions this semester: in mid-March at the 247th American Chemical Society National Meeting and Exposition and in May at Skidmore's Academic Festival. In communicating this work through two different avenues, it will be rewarding to share a year's worth of research – and four years' worth of learning – to audiences both locally and nationally, in the near future and for years to come.

(1) Halstead, J. A.; Kliman, S; Berheide, C. W.; Chaucer, A. ; Cock-Esteb, A. Urban stream syndrome in a small, lightly developed watershed: A statistical analysis of water chemistry parameters, land use patterns, and natural sources. *Environ. Monit. Assess.*, in press.

(2) Frankowski, M.; Ziola, A.; Siepak, M.; Siepak, J. Analysis of Heavy Metals in Particular Granulometric Fractions of Bottom

Sediments in the Mała Wełna River (Poland). *Polish J. of Environ. Stud.*, 2008, 17(3), 343-350.

4. Descriptive title of your capstone project: Advanced Projects in Fiction Writing Course name and number: EN 381

For my senior capstone, I will be writing a novella under the supervision of Professor Millhauser. It will be roughly fifty pages and will explore the dynamic of a family living during a time in which the Earth's resources have all but run out—the husband and father, a man in his 70s, has worked at NASA his whole life and will be venturing into Space on a mission to find new resources, the wife and mother feels in her heart that if her husband goes he will not return, and their daughter has recently given birth, left her child's father, and moved across the country to be with her parents. She is looking for stability in her parents and their relationship, but at this pivotal point in their lives, she cannot get what she is looking for.

Up to this point, all the writing classes I've taken have taught me not only about the conventions of fiction and the techniques to use, but they've helped me realize a lot about

myself as a person. These classes awakened a deep passion within me, one that I hope to follow into a career, but more importantly these classes have shown me how much hard work can pay off. I have always been a hard worker, but I have been a student who has felt a slight disconnect with the work I do—it's always felt like I have been working for a class, not for my own personal growth. However, fiction writing has allowed me to challenge myself: I strive to improve upon the last draft I wrote, and since everything I write is a part of me—fiction writing represents who I am. I realize that I am a talented writer and am a young writer, at that I have much room for improvement and a lot of time to do it. Writing has given me a self-confidence that I haven't gotten from anything else I have done while at Skidmore. The collaborative aspect of writing

classes has enlightened me and taught me the importance of being able to take and give constructive criticism. As an English major, many of the other classes I've taken have helped tremendously with my writing, as I have read a variety of amazing fiction in them. These have taught me a lot about the conventions of writing as well as what kinds of fiction I respond to and enjoy the most, and these skills will come into play in my capstone.

While writing this novella, I am drawing upon all the knowledge I have gained as an English major and Honors Forum minor in terms of how to write, but also what successful writing looks like. This will be the longest work I have ever written, and I will have to push myself harder than I have ever pushed myself in terms of dedication and creativity. It is a culminating task that I am looking forward to undertaking.

4. The Great Recession and Sub-Saharan Africa Course name and number: EC375

The process of development around the globe has always been one where for centuries, the overwhelming majority of international relationships have been between developed and developing nations. Within this dynamic relationship, over centuries developed countries forcibly controlled and extracted resources from the developing nations for their growth and improvement, while returning nearly zero profits back to the conquered. The vicious circles caused by such a relationship cause so many negative effects for developing countries, such that after independence, the effects of the interactions continued to greatly play a role in molding the path of their economic, political, and social changes for their futures. This form of development process where the rich get richer and the poor get poorer has been a common characteristic throughout the world. Thus, it has caused many developing countries, notably in Sub-Saharan Africa, to be characterized under common themes: high levels of poverty, unemployment, population growth, and income inequality; a great

dependency on export markets and agricultural sectors; and low levels of human and physical capital.

These prevailing characteristics of the developing world influenced the congregation of all the United Nations member states and twenty-three international organizations to develop the initiative named the Millennium Development Goals (MDG) in 2000. The MDG has a series of tasks ranging from the eradicating extreme poverty, reducing child mortality rates, fighting disease epidemics such as AIDS, and developing a global

partnership for development by the year 2015. As the years passed after its initiation, progress towards some the goals were moving slowly but well. This was illustrated between the years of 2003 to 2007, when the developing world experienced an impressive economic boom, achieving a growth rate of 7 percent per year (Griffiths- Jones & Ocampo, 2009). The economic boom was greatly fueled by the combination of exceptional financing, high commodity prices, and large flows of remittances. This growth period contributed to the increased integration of the developing nations into the global economy. However, the period of growth for developing nations was short lived because by late 2007, a financial crisis occurred in the United States, and by 2008 the crisis became a global recession. Today, the current recession fully displays how actions within the developed nations still adversely affect the developing world. The purpose of this paper is to analyze the causes, transmission channels, consequences, and policy recommendations needed for Sub-Saharan African nations and international agencies to alleviate the great impacts of the 2008 global economic crisis.

This Economics thesis will serve as a culmination for my major and Honors Forum membership because although the major themes of the paper will be geared towards economics, I will be utilizing all the skills and knowledge gained from the interdisciplinary and Honors intensive classes that I have taken

over the past few years at Skidmore. I will draw from my analytical skills gained from Honors math problem solving and Physics as I create economic models to evaluate GDP, trade deficit, and employment data from African nations. In addition, I will utilize my research skills gained from doing numerous papers in my various courses during my College career. Ultimately, I am very excited to do this thesis because I remember that in 2008, upon graduating from high school, I saw that the financial crisis was just about to erupt; thus, I was a little relieved that I was going to college, as opposed to entering the work force. Fast forward 3.5 years, and the remnants of this crisis are still prominent; although unemployment has slightly been reduced to 8.5%, stability in the global economic environment is still extremely dire. Thus, I believe that by evaluating what happened to nations in my home continent of Africa as well as how to alleviate future crises, I will be graduating with knowledge about something I am passionate about and hopefully in the near future use this knowledge to work at a financial firm focusing on investments in Africa and other emerging market regions of the world.

5. Descriptive title of your capstone project: The Addition of Copper Sulfate to Loughberry Lake and Its Impacts on the Metabolisms of Several Inhabitants Course name and number: ES-375

My capstone partner and I will be monitoring how elevated levels of copper sulfate impact the metabolism of five aquatic organisms; crayfish, pond snails, Daphnia, leeches, and dragonfly larvae. There will be three different concentrations that each organism is exposed to and we will work with each species for two weeks. In order to record their metabolism, we will measure the respiration of each organism every 48 hours. We hope to understand how non-lethal levels of copper sulfate impact the basic functioning of aquatic organisms.

Previous studies involving copper toxicity and aquatic organisms

have utilized lethal concentrations. This is useful in determining the threshold at which the copper concentration becomes toxic to specific organisms. However, less is known about the non-lethal impacts of copper on aquatic organisms. Studies involving crayfish have suggested that copper interferes with respiration. If the organism is exposed to these levels over a long period, the non-lethal consequences could lead to lethality. In the larger picture, it is important to understand how these organisms are impacted because the disappearance of one could lead to instability in the food web. We chose organisms that represent five different aquatic families to see if the response is consistent or not.

The relevance of this capstone to the Saratoga Lake Watershed (which is a requirement of all Environmental Studies capstones) is that the city added copper sulfate to our drinking water reservoir, Loughberry Lake. Copper sulfate is an algaecide, which is added to the water to decrease the algal blooms found in the lake. Algae give the water a bad taste and odor, so it is removed to maintain the quality of the water. As a local water body, it is important to understand how copper sulfate addition is impacting the aquatic inhabitants. Copper sulfate is used nationally, so any important findings we discover in our capstone will be reach further than just the Saratoga Lake Watershed.

My partner and I will write a research paper as well as present our findings at the Academic Festival along with the rest of the ES capstone students. Several prior ES capstones have involved the addition of copper sulfate to Loughberry Lake. In 2008, three students determined that the sediments contain high levels of copper. Two projects concentrated on the accumulation of copper in organisms in the reservoir, while another focused on how copper in the water column impacted the feeding behavior of bluegill sunfish. As an Honors Forum minor, I want to be a leader to contribute to this growing body of knowledge of how the city's use of copper sulfate impacts the biotic component of our drinking

water reservoir.

6. Descriptive title of your capstone project: Catholicism and Ulysses: The Place of the Roman Catholic Church in 1904
Dublin Course name and number: EN-375

Last semester, I completed my capstone with Professor Tom Lewis, in which I wrote a research paper on Catholicism in James Joyce's Ulysses. My paper, entitled "Catholicism and Ulysses: The Place of the Roman Catholic Church in 1904 Dublin, focused on two chapters of Ulysses, and relied heavily upon the relationship between the Church and Irish politics in the 19th and 20th centuries. I opted to apply for departmental honors on my thesis, which required a second faculty member of the English Department to read my work and decide if it was worthy of honors. In doing so, my timeline for completion was significantly smaller, and required numerous edits throughout the first semester. Professor Sarah Goodwin was my second reader, and after finishing my research paper, I met with her to defend my thesis. Though she suggested minor edits to the work, she, along with Professor Tom Lewis, deemed my work worthy of departmental honors. However, my future plans for this research paper include a presentation during Academic Festival. In order to complete my capstone requirement, I

plan to present my work, and share with the community the same excitement I had discovering, and discerning, the complexities of Joyce's work. Furthermore, I hope that this public display of work will provide feedback on my own research, which would enable me to strengthen and refine my overall abilities.

As a member of the Honors Forum, I found that the work I did in my Ulysses seminar epitomized the goals of the Honors Forum itself. Instead of simply completing my required assignment, I pushed my abilities and my paper to the limit, in pursuit of improving my abilities as an English major, yet also as a critical

thinker—which furthers my liberal arts education. After its completion, my research paper showed me that Skidmore College, as well as the Honors Forum, has succeeded in its goals as a liberal arts institution. I was required to think analytically, critically, and rationally; furthermore, I had to transfer these thoughts onto paper coherently. I utilized my knowledge of all my classes here, whether they were simply foundational requirements, or 300 level classes that counted towards my major. Either way, my capstone is the tangible product of my education here at Skidmore.

7. Descriptive title of your capstone project: Tang Museum Exhibition on Crowds Course name and number: AH 371

Project description: Integrating the knowledge and skills that I have developed through my art history major and minors in arts administration and the Honors Forum, I am curating an exhibition at the Tang Museum for my Senior Project. My classes at Skidmore, past internships, and work at the Tang Museum have prepared me for this ambitious undertaking. In art history classes, I learned how to analyze and write about art. In arts administration classes, I learned the business behind art: how to organize an event, what materials need to be distributed, and how to raise money.

My three most significant museum jobs and internships put into practice what I ascertained in class and guided me through the steps of curating a show. As Curatorial Intern at Olana State Historic Site, I researched future exhibitions and learned about the early stages of the curatorial process. As a multi-departmental intern at Chesterwood (National Trust for Historic Preservation site), I helped execute and install the annual outdoor contemporary sculpture show and organize related special events. As Education Assistant at the Tang Museum, I prepare printed materials to accompany exhibitions and assist with public programming. The aforementioned tasks directly relate to what I will be doing for my senior project. These experiences have taught me the necessary

skills for interacting with museum staff and the step-by-step process of how an exhibition develops.

Last fall, through an Honors Forum independent study, I began formulating ideas and drafting an exhibition proposal. I decided on the theme of crowds and crowding—a relevant but often underemphasized issue in today's society and a prominent subject in the Tang's Collection. The artworks (primarily prints and photographs) will explore the

idea of crowds in multiple ways: a crowd of people or objects, crowded cityscapes, crowds gathered for entertainment or a cause, and an implied sense of crowding.

Since I have already begun the groundwork for my senior project, I am working this semester on finishing the planning stages of the curatorial process. This includes revising my proposal that has already been approved by the Tang staff; I will build upon it to focus and hone my ideas. I will research the social, political, and psychological implications of crowds and analyze those topics within the context of the exhibition. I will finalize an artworks checklist and arrange pictures of these artworks in a to-scale model. Beginning this semester and extending to next semester, I will write wall texts and an informative pamphlet to accompany the exhibition. I will expand on the pamphlet in the form of a catalogue, implementing the analytical skills I have developed in my art history classes. I will organize related events, specifically an opening reception and a gallery talk for which I will lead a tour. I will assist the Tang staff with mounting the artworks. Finally, the ultimate outcome will be the exhibition at the Tang Museum from February to April 2013.

Therefore, curating an exhibition synthesizes my academic and professional experiences. The tangible result of an exhibition provides an outlet to reflect all that I have learned at Skidmore. Further, this culminating project will prepare me for an arts-related

job after graduation.

8. Description title of your capstone project: Empowerment Workshops For Adolescent Girls

Course Name: PS 371A: Independent Study In Psychology

Project Description: My capstone project is an independent study in psychology. My psychology advisor, Dr. Rebecca Johnson, and I worked with education studies Professor Christine Dawson to plan a project that combines psychology and education studies. My project consists of three parts: article reading and responses, workshops, and a final reflection paper. For the article reading portion, I will read 17 articles relating to peer pressure, emerging sense of self, and body image, topics that are very relevant for adolescent girls. I will write a 1-2 page response paper for 10 of the articles, focusing on what I learned from each of those 10 articles and how they will influence my workshops. For the workshops portion of my project, I will plan and execute two workshops with a girls group at Oliver Winch Middle School in South Glens Falls, NY. The first workshop will focus on peer pressure and emerging sense of self, and the second workshop will focus on body image. The third portion is a 4-5 page reflection paper. I will write about how the articles I read influenced the workshops I ran, and I will write about the workshops themselves, focusing on how they were perceived by the girls, and what I would do the same or differently if I were to do similar workshops in the future.

I believe that this independent study is a perfect culmination of my Skidmore career because it combines my major and all of my minors in a thoughtful and meaningful way. This project works with my psychology major in many ways. One way is that the articles I am reading are all research studies from psychological journals. By reading them, writing response papers, and using the results to influence my workshops, I will show that I have learned

how to read, understand, and apply scientific research to my life. This is an important skill because it allows me to actively respond to what I read, showing that I am an active learner. In addition, this relates to my psychology major because my project could be considered an informal research study. I am planning a project, reading previous literature, running workshops (rather than testing participants), and then writing my reflections as a discussion (rather than writing a formal results section)

This capstone project is also an ideal culmination of my minors in education studies and sociology. Planning the workshops is very similar to lesson planning, a skill that I learned in education studies classes. In addition, I will be working with a guidance counselor at Oliver Winch, so I will be able to get hands-on experience working in a school with a team of educators. Although I do not have an advisor from the sociology department helping me with this project, it does involve some sociology. Many of my articles focus on gender differences, which have a place in social structures, and, thus, sociology. In addition, I will be taking the demographics of South Glens Falls, such as race and class, into account, which is a big part of sociology.

Finally, I feel like this project reflects the goals of the Honors Forum. It is an independent study, so it moves beyond the requirements of regular courses. I worked with Dr. Johnson and Professor Dawson to plan the independent study, but I came up with the original idea and found many of the articles I will read on my own, so I took ownership of my learning. It involves both academic thinking and hands-on experiences to take my learning out of the classroom setting. When I stand in front of the middle school girls to run my workshop, I will be stepping out of my comfort zone. This is a challenge that I am very excited to pursue. As I have been planning this project since the spring and have already begun to read and respond to articles and plan my workshops, I have already been engaging the life of my mind. I

have been thinking about reading material in a different way than I usually do for my classes. I will be presenting information to people other than my classmates and professors, which is different from what I usually do in my classes.

I am extremely excited to carry out this culmination of my time at Skidmore, and I am so thrilled that it combines the topics of psychology, education studies, and sociology, with the mission of the Honors Forum in such a seamless way. I am so thankful to have this opportunity.