



Boston University College of General Studies

CAPSTONE AWARDS

**Marilyn and Jeffrey
Katzenberg Center**

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Natalie McKnight, Dean

WINNING CAPSTONE PROJECT

TEAM S

Ten-Year Proposal for Boston

Team S Winners

Julia Budde
Michelle Grbic
Kathryn Lezynski
Michael Montesi
Katelyn Richerts
Teah Welsch-Rainek

Faculty

Millard Baublitz
Mary Catherine McDonald
William Tilchin

Advisors

Heidi Chase
Ilda Hanxhari
John Lyons
Louis Mayhew
Illana Rosen

Constituting itself as the International Commission for New Age Biking, this group prepared a report for the Massachusetts Department of Transportation designed to build on Boston's recent achievements and existing plans to improve the bicycling infrastructure, bicycle safety, and the appeal of bicycling in Boston. The members' research was extensive, and their paper was very well-written, very well-organized, and richly illustrated. After reviewing bicycling in Amsterdam and in four U.S. cities and identifying aspects of those cities' bicycling systems that might be transferable to Boston, the group put forward a very specific, thorough, multi-faceted, and realistic policy for the DOT's consideration. Moreover, following the presentation of their detailed proposal, the members proceeded to discuss the funding of their policy in a careful and persuasive manner. This Capstone paper is a strikingly professional piece of work, from which bicycling authorities in Boston could genuinely benefit, and for which the three Team S professors highly commend the six student authors.

WINNING CAPSTONE PROJECT

TEAM T

Boston Transportation Improvement Agency (BTIA): A Proposed Solution to Boston's Transportation-Related Air Pollution

Team T Winners

Tara De Rosa
Brienna Gould
Michael Moran
Marisa Shocket
Dakota Woodworth

Faculty

Neal Leavitt
John Mackey
Sally Sommers Smith

Advisor

Illana Rosen

Boston's air quality could be better – and Boston's university students should play a role in planning and implementing improvements to the local environment. That's the conclusion of the small but mighty Capstone group who submitted the most interesting and innovative project to their Team T faculty in 2014. Taking their inspiration from the Big Dig as well as several more recent innovations from Europe and Australia, this group proposed a major change to the landscape of Commonwealth Avenue and Beacon Street: submerge the Green Line on these thoroughfares; build new, state-of-the-art stations modeled on London's Underground; and employ the newest technology to reduce the energy costs of running the Green Line. In place of the historic trolley lines, the group proposed building a dedicated bike path, separated from the automotive traffic, with its own set of traffic signals. This step, they reasoned, would not only promote cycling in the city, but would also improve pedestrian and cyclist safety. We were pleased both with the creativity of the proposal as well as the sound reasoning that argued for its adoption.

WINNING CAPSTONE PROJECT

TEAM U

Building Resiliency in East Boston: A Proposal for Logan Airport and Residents Facing Sea Level Rise

Team U Winners

Allison Brennan
Meghan Kelliher
Cecilia Ramirez
Tali Sandel
Dani Segelbaum
Isabel Vera

Faculty

Christopher Fahy
June Grasso
Samuel Hammer

Advisor

Heidi Chase

This Capstone project explores the issue of how climate change, occurring in the form of rising sea water levels, could impact both Logan International Airport and the neighborhood of East Boston. Both entities are low lying and susceptible to the combination of high tide and major storms.

The project proposes a number of short term solutions: in East Boston, an information website on the problem could spur individual action; sandbags and green roofs could absorb water; utilities could be moved to higher levels and buildings made more watertight, and landlord laws to ensure that this occurs could be more vigilantly enforced. At the airport, barriers protecting utilities could keep the airport up and running. In East Boston, long term solutions could involve retrofitting essential commercial buildings, building a barrier or sea belt, developing wetlands to prevent flooding, and developing channels and basins to catch excess water. The long term solutions for Logan Airport could involve relocations; a more practical long term plan would involve moving all electrical and petroleum units inland.

This Capstone project is thorough and thoughtful. It recognizes the special problems raised in protecting rental units where landlords do not wish to incur additional expense. It also recognizes the intractable problem of Logan International Airport being located at a site particularly vulnerable to rising sea levels. Its proposed solutions are practical and (relatively) cost effective. This is an effective project that doesn't back down from the very real challenges posed by rising sea levels.

WINNING CAPSTONE PROJECT

TEAM V

Proposal for the Seafood Awareness Safeguard: Tackling Seafood Fraud in Boston

Team V Winners

Marissa Brown
Ryan Guizano
Jayne Lee
Kyle Liberti
Alanna Raskin
Daniel Rollins

Faculty

Richard Samuel Deese
Robert Schoch
Robert Wexelblatt

Advisor

Louis Mayhew

The seafood industry, from wholesale trade to consumption in local restaurants, is a vital component of the local Boston economy. Yet there is also widespread fraud, particularly in the form of mislabeling (where cheaper lower grade fishes are mislabeled as more expensive species). A 2011 Boston Globe study found that out of a sample of 183 fish acquired from 134 local restaurants, an astounding 48% were mislabeled. A follow-up study the next year found that 76% of the guilty restaurants continued to mislabel seafood. It is not just an issue of substituting cheaper fish species for more expensive ones; mislabeled fish can be hazardous to public health (for instance, some species contain higher levels of toxins than others) and detrimentally impact the environment (such as the overharvesting of particular species under the guise of fishing for different species).

In order to address these serious issues surrounding the consumption of seafood, Marissa Brown, Ryan Guizano, Jayne Lee, Kyle Liberti, Alanna Raskin, and Daniel Rollins established a 501(c)(3) not-for-profit organization: Seafood Awareness Safeguard (SAS). The direct outcome of SAS was the formation of a team of inspectors and qualified scientists dedicated to inspecting, testing, and DNA barcoding fish on the market. SAS collaborates with other relevant local, state, and national organizations and government agencies to insure the authenticity and safety of seafood. In addition, SAS raises awareness and sponsors educational programs regarding mislabeled seafood, working with schools, organizing field trips, and sponsoring special events. Look for the SAS seal at your favorite restaurant – it is your guarantee that you will receive high-quality and properly labeled seafood.

Is this “just a Capstone”? Or is SAS for real? The faculty was convinced that Seafood Awareness Safeguard could indeed be a viable organization. And how could we resist the “SASsy Fish Puns” such as, “What did the fisherman say to the magician?” “Pick a cod, any cod.”

WINNING CAPSTONE PROJECT

TEAM W

Cycling Our Way to Safety: Recommendations for Safe Cycling in Boston

Team W Winners

Kerem Kamisli
Sumer Kotwal
Genevieve Lane
Manuel Perello Fernandez
Daniella Seidl
Max Soloshchanskiy

Faculty

Michael Kort
Kari Lavalli
Jeffery Vail

Advisor

Ilda Hanxhari

This group's Capstone project, *Cycling Our Way to Safety: Recommendations for Safe Cycling in Boston*, presented a plan that took its inspiration from the Netherlands. The group devised a detailed plan to offer Bicycle Registration Cards for Boston cyclists, which would be similar to driver's licenses, but not mandatory. Cardholders would receive financial benefits and in case of an accident, medical personnel or police officers could quickly identify and track cyclists through individual codes located on the back of each card. Employing advertising innovations, and building new "cool" bike parks were also part of the group's carefully constructed plan to create a thriving new "cycling culture." The Capstone paper is a realistic but imaginative plan from a bright, responsible group with a professional demeanor.

WINNING CAPSTONE PROJECT

TEAM X

BPA: A Global Issue Warranting Local Action

Team X Winners

Jonathan Brooks
Lindsey Constantine
Megan Ebner
Julia Katzman
Carley Lemay
Lilian Liang

Faculty

Peter Busher
John McGrath
Meg Tyler

Advisors

Alyse Bithavas
Stacy Godnick

Perhaps the best visual image of modernization is not a massive super-highway, a jumbo jet or a towering skyscraper, but the ubiquitous plastic bottle. This is the symbol that the award winning Team X Capstone group, Jonathan Brooks, Lindsey Constantine, Megan Ebner, Julia Katzman, Carley Lemay and Lilian Liang, selected to represent a dilemma of modern life: convenience vs. human induced health risks. It is not the polycarbonate foundation of plastics that is inherently harmful, but the additives in the plastic compound, such as Bisphenol A – BPA. The group took a global problem, since BPA infused plastics are used worldwide in everything from CDs, the linings of cans, linings of water pipes, water and baby bottles, and thermal cash receipts, and focused locally on limiting the use of plastics with BPA in the most economically challenged areas of Boston. They developed a cogent argument for the danger of BPA as an endocrine disrupter – one that can mimic estrogenic hormones and affect reproduction – and documented the effects of BPA on both pre-natal and post-natal development. They focused on an easily overlooked group in modern society, the economically challenged, who may not be able to choose where to shop or able to afford the “safest” products. They then proposed a realistic, practical and multifactorial solution to remove products containing BPA from “Dollar Stores” in these Boston neighborhoods as the first step, ultimately leading to a city, state, national and international movement to ban the use of BPA. In a simple, yet bold solution the group focused first on education and advertising to raise grassroots awareness in these low-income areas. They worked through neighborhood health centers to create an education program explaining the health risks of BPA and developed educational pamphlets that are available throughout the neighborhoods. They then documented the financial savings from eliminating BPA through reductions in health costs and finally attacked the BPA problem at its source – the manufacturers, suppliers and distributors. During the project they interacted with the Boston Mayor’s Office, neighborhood groups and plastic suppliers and distributors. They thought globally, but acted locally! The scientific, sociological and ethical research into this topic was thorough and well documented, and their development of the problem and proposed solution skillfully brought the reader to only one conclusion – BPA STAY AWAY.

WINNING CAPSTONE PROJECT

TEAM Y

Eutrophication of Coastal Waters: The Problem and the BEST Solutions

Team Y Winners

Emily Fuller
Catherine Gatto
Lee Ginton
Maria Henning
Andrew Miller
Lavinia Wihtol

Faculty

Sandra Buerger
Joshua Pederson
Thomas Whalen

Advisor

John Lyons

This group produced a fantastic Capstone project on the topic of eutrophication, a process by which excessive amounts of nutrients—most frequently phosphorous and nitrogen—are flushed into our waterways. These nutrients fuel an explosion in algae populations, whose proliferation robs the water of oxygen and crowds out other species. While the Capstone was cleanly written and well researched, a number of other strengths set the project apart. First, while the “dead zones” eutrophication creates have been given ample coverage by the popular press, this group eschewed mainstream publications and went straight for the scientific literature, ably grappling with the complexities of the biological research that drives our understanding of eutrophication. Further—and more impressively—the group both understood and was confidently able to translate the details of that research for an audience of non-specialists, despite the fact that some group members are currently doing undergraduate research in marine biology and preparing to be specialists themselves. The defense was a pleasure and a learning experience for all three faculty members. Last, the group members spoke insightfully when pressed as to why their solution—a sort of cap-and-trade system for fertilizers—might work when similar programs have never quite gotten off the ground.

About Capstone

The concept of a Capstone project is older than, and certainly not unique to, the College of General Studies at Boston University. A final research project has historically been considered the culmination of a liberal arts education. In addition to the historical and academic meanings of the term, there is an architectural significance to the word “capstone.” A capstone is the final block that is placed on top of a construction project to tie the whole structure together.

First, just as the construction of a building is not an individual effort, but rather a process requiring the labors of an organized group, so too is the Capstone project a group effort. Students are expected to work together for the success of the group. The more each individual gives to the group, the more each person will gain from the month’s work. When there is a genuine group effort, the final product is better and the experience is more rewarding.

Second, the Capstone project is a kind of drama, requiring an act of imagination as students assume the roles of experts or advocates and present their findings in a real-world format.

Third, the Capstone paper is not to be merely a fifty-page research term paper. Instead it is a synthesis – a combining of separate elements to form a coherent whole. Research is, to be sure, an indispensable part of the project; but students are expected to construct arguments, to analyze and synthesize this research in order to make a proposal or reach a verdict and justify their conclusions. In other words, research is more than gathering raw data as an end in itself. What is most important is the synthesis of these data into a meaningful whole which, if done properly, will be greater than the sum of its parts. — Professor R. Wexelblatt