BEO Capstone: 2015-16 Projects Options

The C.V. Starr Program in Business, Entrepreneurship and Organizations (BEO) is a unique, interdisciplinary, undergraduate concentration at Brown University focused on the study of business, entrepreneurship, technological innovation, and organizational theory. BEO educates students to be creative and flexible leaders for careers in for-profit, social mission and start-up organizations. Through the disciplines of economics, sociology, engineering, and entrepreneurship, students learn methodological approaches to address challenges in national and global economic context.

Beginning in the fall of 2013 all BEO seniors have been required to take a capstone course which includes a one or two semester long project. A faculty advisor supervises project teams, usually comprised of five students. Students apply conceptual and theoretical grounding obtained in BEO courses to deliver analysis and recommendations related to a specific challenge facing a sponsor organization. Sponsor organizations appoint a senior level mentor to help define and guide the project.

This academic year marks the third full BEO cohort to participate in the capstone. Close to 100 students are working these 20 projects.

Entrepreneurship & Technology Management Track Projects

Entrepreneurship & Technology track concentrators are required to be assigned to one of following three year-long projects. BEO Organizational Studies and Business Economics track students, and a select number of non-BEO concentrators have been assigned. All assigned students must note that these are full year commitments and must complete an application to help BEO faculty form the teams.

1. Measuring Consumption Trends Through Improved Technical Solutions
Sponsor: Rhode Island Distributing Company, West Greenwich, RI
Mentor: Ken Mancini, President
Project Advisor: Steve Petteruti
Rhode Island Distributing (RID) Company is a wholesale beverage distributor that services such popular brands as Red Bull, Coors, Fiji water and Captain Morgan Rum. In a consolidating industry, distributors have had to develop sophisticated operational systems to manage inventory and delivery logistics. RID continues to innovate and will work with the capstone team to develop a stand-alone business for gathering proprietary, leading edge brand data to help grow market share at the local level and increase brand awareness, and recruit brand partners. Using technology, the team will develop a solution that captures real-time insights and brand representation metrics at the local level. The solution should offer increased visibility into supplier consumption trends.
2. Developing Novel Water Storage Technologies  
Sponsor: Amtrol Inc., West Warwick, RI  
Mentor: Chris Van Haaren, VP Engineering  
Project Advisor: Steve Petteruti  
AMTROL, founded in 1946 is an international leader in innovation, quality and service in the gas and liquid storage container industry. It introduced the world’s first pre-pressurized diaphragm expansion tank, invented the first pre-pressurized well tank and pioneered the refrigerant gas cylinder. As a world leader in the design and operation of mechanical systems to store potable water, this project will work with AMTROL to identify a promising market and create a new business that leverages its storage tank solutions including unique methods to monitoring key water parameters such as pressure, temperature and flow rate.

3. Exploring New Markets in Advanced Manufacturing  
Sponsor: LFI Inc., Smithfield, RI  
Mentor: Kip Brockmyre, President and CEO  
Project Advisor: Steve Petteruti  
LFI, Inc. is one of the leading manufacturers of precision metal components, sub-assemblies and surgical components in the United States. In addition to medical supplies and devices, LFI also provides precision manufactured products to the aerospace industry. Their core competency is in laser welding, Swiss screw manufacturing, wire EDM, precision tube bending and high-precision laser drilling, scoring and passivation. The focus of this project will be to research and develop a new product that makes the best use of LFI’s core competencies while also providing enough margin to make this diversification worthwhile as a stand-alone business.

Business Finance & Consulting Projects (Fall Semester)

These projects include Business Economics and Organizational Studies track students. Note, projects are fall semester commitments. Extension of a project to a two-semester commitment can be arranged through the capstone faculty.

4. Evaluating the Investment Impact of “Green Buildings”  
Sponsor: Textron, Inc., Providence, RI  
Mentor: Charles van Vleet, Chief Investment Officer  
Project Advisor: Tim Nguyen  
Textron is an international diversified holding company based in Providence, RI that owns companies in aerospace, financial services, commercial lawn/golf equipment and defense related systems. Its pension fund, valued at over $10B and supporting over 28,000 pensioners, is comprised of a variety of asset classes including direct investment in commercial real estate properties. This project will evaluate the merits of investing in “green,” LEED certified buildings within its real estate portfolio. The objective of the project is to define and analyze the cost vs. rewards of building/retro-fitting a building to meet certification standards. This project requires qualitative and quantitative analysis of how or if green buildings can deliver superior investment returns which satisfy the fiduciary duty to invest solely in the best interest of Textron’s pension plan participants.
5. Assessing Direct Foreign Investment in the United Arab Emirates  
Sponsor: Textron Inc., Providence, RI  
Mentor: Robert Lupone, Executive Senior VP, General Counsel and Secretary  
Project Advisor: Tim Nguyen  
Textron, a diversified Providence-based holding company, conducts business across the globe. As part of global business development, Textron, like other U.S. industrial corporations typically explores the advantages and disadvantages of direct foreign investment in foreign countries as a way of increasing sales overseas. The United Arab Emirates (UAE) is a major purchaser of aviation, defense and other industrial products, core business lines for Textron. The capstone team will assist Textron in addressing the following research questions: What business considerations are triggered in a direct foreign investment in the UAE? In particular, if an industrial corporation wants to set up manufacturing/assembly, sales/distribution, and maintenance/repair/service capabilities in the UAE, what are the significant: a) legal, regulatory, business and operational requirements, and b) the business and operational considerations that are important to analyze in determining a foreign direct investment? The project involves principles of governance, law, and economics of strategy. Ideally, students should have taken or are advised to take Econ 1790 “Corporate Governance, Finance, and Management” (offered in Fall 2015) concurrently.

6. Improving Profitability and Inventory Management through new Technology Platforms  
Sponsor: CVS Inc., Woonsocket, RI  
Mentor: Head of Technology and Strategy  
Project Advisor: Tim Nguyen  
As one of America's largest companies, CVS pharmacy business requires consistent investment in new and innovative technologies. New technologies allow store colleagues across the country to streamline their workload, drive profitability in each of 7,800 locations, and remain focused on providing the highest levels of customer service. The technology strategy group at CVS/pharmacy is currently researching new technologies that will significantly improve profitability and inventory management. As part of this project, the BEO student team will work collaboratively with the TSG team to develop business cases, cost/benefit analyses, and pilot plans that will determine whether CVS may invest in new technology platforms for the entire chain.

7. Understanding Customer Experience to Influence Strategic Marketing and New Product Launch  
Sponsor: Philips Healthcare, Andover, MA  
Mentor: Andrea Ryter, Senior Global Marketing Director and Managing Director  
Project Advisor: Tim Nguyen  
Philips’ sleep and respiratory division produces and markets medical devices and services for patients with sleep conditions such as sleep apnea and respiratory issues such as asthma, COPD, and Congestive Heart Failure. Philip’s traditionally markets through medical specific channels and seeks to increase business in certain product lines through targeted online and retail channels where consumers typically shop and seek information. Philips looks at innovative ways to blend consumer and clinical marketing to get messaging out to influence the prescription and purchase of our devices and services. Because this division markets a prescription product, methods to reach doctors and patients cannot be the exact same as “over the counter” products. Also, marketing these products and services is different from pharmaceuticals. The capstone team will explore the consumer journey from condition-specific research (asthma and COPD) to the shopping process, and then to prescription processing and product maintenance. As part of this project, the team will document findings and make suggestions as to how
Philips can provide information, linkages, and product access in order to do a better job marketing to doctors and consumers, communicating the right information in the right places. As such, students will do online research, go through the shopping process, and help identify ways to enhance the user experience of researching, purchasing, and maintaining our products.

8. Exploring Investment Opportunities for University Endowment
Sponsor: Brown University Investment Office (A), Providence, RI
Mentor: Joe Dowling, Chief Investment Officer
Project Advisor: Tim Nguyen
This project is an investment opportunity search for Brown’s endowment. Given the current environment the capstone team will explore what current asset class or investment it should recommend to the Brown investment team. Students will consider investments in various markets: equity, currency, commodity, bond or even individual stock. The team should address the question, “where is the best value in the world today.” The investment recommendation should seek to capitalize on Brown’s competitive advantage- permanent capital focused on both preservation of capital and risk-adjusted capital appreciation. Students will be required to explain their research methodology and back up their analysis with data, primary research sources (including interviews) and in the context of fundamental drivers of returns. The investment idea should be able to support a $60 million investment with ample liquidity (no more than 10% of trading volume). Projections of the expected return (upside, base and downside) as well as risks should be considered. The capstone team will present its recommendations to members of Brown’s investment team.

9. Applying Warren Buffet Investment Principles
Sponsor: Brown University Investment Office (B), Providence, RI
Mentor: Daniel McCollum, Managing Director
Project Advisor: Tim Nguyen
The Brown University Investment Office, under the direction of the Brown University Investment Committee, manages the $3 billion Long-Term Pool (“LTP”), which includes endowed funds as well as current University funds. The primary goal of the LTP is to support the University in perpetuity so that future generations of students and faculty receive at least the same level of inflation-adjusted support as the current generation. As one of the most successful investors in modern times, Warren Buffet has taken long-term, strategic approaches to investment. The Brown Investment Office will work with the capstone team to assess and learn which of Buffet’s investment principles can be applied to Brown. The team will research, critique and summarize Buffett’s underlying philosophy and methodologies, and make specific recommendations on what principles and practices Brown should follow.

10. Improving Proxy Voting
Sponsor: State of Rhode Island Treasury Office, Providence, RI
Mentor: Anne-Marie Fink, Chief Investment Officer
Project Advisor: Tim Nguyen
The RI Treasury Office is responsible for a range of state operating funds and investments including the $8 billion Employee Retirement System. Treasury is in the process of developing a more active program related to stock-holder proxy voting. Assisting Treasury professionals, the capstone team will work as a consulting group to first evaluate a range of potential proxy issues that Treasury should tackle, and second select a signature issue for the capstone project. Justification for the signature issue should include pros and cons of acting on it, especially a quantification of the economic impact and fiduciary benefit of such a campaign. Ideally, students should have taken or is advised to take Econ 1790 “Corporate Governance, Finance, and Management” (offered in Fall 2015) concurrently.
11. Turning Around a Troubled Non-profit  
Sponsor: Childrens’ House Montessori School, Camden, ME  
Mentor: Patrick McManus, Member of Board of Directors  
Project Advisor: Brendan McNally  
A prestigious Montessori School in coastal Maine is looking to turnaround its financials and competitive positioning in Camden, Maine. Serving children from 18 months to 10 years old, Children’s House’s Montessori education promotes the development of the whole child, facilitates the natural growth of self-discipline, and cultivates each child's inherent joy in learning. Founded in 1979, the school has weathered good and bad times. This assignment will assist board members in identifying strategic options for improved fiscal health and involve close analysis of current financial practices.

12. Assessing Investment Options in China  
Sponsor: Millennium Management LLC, New York, NY  
Mentor: Ajay Nagpal, Chief Operating Officer  
Project Advisor: Brendan McNally  
Millennium is a global institutional asset manager established in 1989 based in NYC. Over the last 25 years, Millennium’s mission has remained constant: to deliver the alternative investment industry’s highest quality returns to investors, and to maintain a commitment to principles of integrity, discipline and excellence. This project involves assessing the viability of investing in Chinese markets. Capstone students will access opportunities available to Millennium as an off-shore investor versus on-shore options. The project will involve a mapping of the competitive landscape of offerings by Millennium’s peers. Students will research and prioritize barriers to entry with the ultimate goal of providing recommendations to Millennium management about investment options and strategies.

Social Innovation/Social Entrepreneurship Projects (Fall & Spring Semesters)

These projects are assigned to Organizational Studies and Business Economics track students. Note, projects are expected to be full year commitments.

13. Taking Student Satisfaction to the Next Level  
Sponsor: Brown CareerLAB, Providence, RI  
Mentor Aixa Kidd, Director BrownConnect  
Project Advisor: Lisa DiCarlo  
BrownConnect is a new initiative started by President Christina Paxson to link students to the Brown community for career success. The BrownConnect mission is to increase the number of high-quality summer internship and research opportunities available to Brown first years, sophmores and juniors; ensure that these opportunities are accessible to all students regardless of financial circumstance; and partner with CareerLAB to increase the opportunities for students to access the global network of alumni, parents, and friends and strengthen Brown students’ preparation for these opportunities.  
This is a unique opportunity for BEO students to work with the Director to enhance and market this newly launched campus program. The capstone project will focus on measurement of student satisfaction of BrownConnect program/site and also the development of a targeted marketing plan to undergraduate students to increase site usage. The capstone tesm will help develop student satisfaction metrics, as well as implement a new student marketing plan for enhanced outreach. The
goal for the end of this project year will be to report on student satisfaction with the new tool and to make recommendations on BrownConnect’s strategic outreach to students. The capstone team will have access to past summer employment survey results, but may need to employ additional research tools as deemed necessary.

**14. Assessing Brown’s “Transportation Footprint”**  
**Sponsor:** Brown Facilities Management, Office of Energy and Environment, Providence, RI  
**Mentors:** Jessica Berry, Sustainability Program Manager  
**Project Advisor:** Brendan McNally  
Brown’s Energy & Environment (E&E) Office is committed to achieving sustained energy and environmental performance. Through various initiatives, professionals in the E&E office work to understand energy consumption patterns to develop integrated, systematic approaches to energy management including assessing performance, setting goals, creating action plans, and tracking and communicating results. High on the list of Brown’s contributors to greenhouse gas emissions and costs is the university’s “transportation footprint.” This capstone project will help E&E map the various contributors, understand relative impact of each, and provide recommendations for reducing the footprint. The project will involve the design and analysis of surveys to better understand transportation behaviors of students, faculty and staff.

**15. Marketing Strategies to Millennials**  
**Sponsor:** Latium Network  
**Mentor:** David Wellisch, Founder and Managing Partner  
**Project Advisor:** Lisa DiCarlo  
Latium Network was founded in 2009 with the mission to be the leading organization dedicated to helping companies win in the multicultural economy. Its business network model—powered by the nearly 100 member brands it works with—serves as a platform to deliver consumer insights, marketing strategies, and large-scale consumer access, enhancing its member companies’ effectiveness and ultimately driving measurable ROI. Helping members identify and serve the diversity of Hispanic and Multicultural markets is an area of expertise and success. The capstone team will provide analysis and recommendations on how Latium should best leverage its existing models to launch a new extension of its business covering the millennial consumer segment. Forty-five percent of Millennial consumers are multicultural. Millennials are a “must win” market for corporate America. This project will work with Latium to research the competitive landscape, determine strengths and opportunities, and implications of a millennial launch and its key ingredients of success.

**16. Growth Strategies in Health-tech**  
**Sponsor:** Doctors Choice  
**Mentor:** Dr. John Luo  
**Project Advisor:** Brendan McNally  
Doctor’s Choice helps retirees and small businesses choose the best health insurance plan through providing personalized consultations. Started by Dr. John Luo, Brown 09’ MD 13’, out of a need to educate patients about Medicare, the mission of Doctor’s Choice is to make health insurance understandable and affordable. Doctor’s Choice has offices in Warwick, RI and helps companies and individuals in RI, MA, and CT through engaging a team of licensed health insurance agents. This capstone project will work with Dr. Lou to research best practices and make recommendations for improvements to employee training to identify the most appropriate employee/contractor model to scale the business.
17. Marketing Strategy for Social Innovation  
Sponsor: Loomio  
Mentor: MaryJo Kaplan, US Operations Lead  
Project Advisor: Lisa DiCarlo

Loomio, a social enterprise start-up based in New Zealand with a US office in Providence, is an open source tech tool designed to make it easier for people to participate in decisions that affect them. During its beta phase, Loomio has had organic, horizontal growth to nearly 100 countries. With the imminent release of Loomio 1.0, the venture is pursuing a robust, targeted marketing plan. The capstone project will focus on the development of this marketing plan. The work will involve analyzing current customer mix, identifying high potential market segments, reviewing pricing, positioning and go-to-market strategies, including B2B partnerships.

18. Enhancing Government Transparency Through Innovation  
Sponsor: City of Providence  
Mentor: Nicole Pollack, Chief Innovation Officer  
Project Advisor: Lisa DiCarlo

Providence's Office of Innovation is tasked to help the city improve the delivery of services and information to residents, businesses and organizations. A common challenge for municipalities is to provide information in readily accessible and transparent ways. This capstone project will work with professionals in the Mayor’s office help develop strategic and implementation plans for innovations in government transparency and open government. Using existing research documentation, transition committee recommendations, open data tools, and strategic support from the Bloomberg Foundation’s WhatWorksCities Initiative, the team will help craft recommendations for the plans. The project could also involve suggestions for piloting and scaling new online tools to both support innovation and scale-able solutions that support the plan. While strategic and implementation plans are multiple year initiatives, the capstone team will provide valuable contributions through their analysis of different approaches and options.

19. Designing for Growth  
Sponsor: Volute Technologies  
Mentor: Michael Croft, Founder, CEO  
Project Advisor: Brendan McNally

Volute Technologies is a growth stage software technology firm based in Lincoln, RI that provides clients with a next generation, integrated platform of applications to enhance learning, collaboration and communication. Volute’s modular, cloud-based app approach allows users to access information on desktops and mobile devices, providing an agile and scalable model that can rapidly evolve with the changing demands of organizations. Higher education is a target market where there is great potential for integrating apps that facilitate time management, ideation, voting, and collaboration. The capstone project will assist Volute in plans for organizational growth by analyzing and recommending models and policies (e.g. stock appreciation rights, shared equity/value stock) and also assist Volute in market research efforts (focus groups and/or surveys) to best understand where leaders in higher education see the most value in the platform.
20. Building the Case for Smart-Grid Home Heating Solutions
Sponsor: VCharge
Mentors: Bob Chatham, Chief Marketing Officer and Michael Flaherty, Planning and Policy Consultant
Project Advisor: Lisa DiCarlo
VCharge is a Providence-based start-up with a long-term vision to prepare the electric grid for a new era of distributed, renewable energy. VCharge is expert in “smart-grid” software applications to better balance supply and demand of electricity by aggregating and controlling electric loads paired with energy storage. With partners, VCharge is pioneering novel home heating/cooling system incorporating energy storage, new heat pump technology and software that could drastically lower utility costs and carbon emissions without major changes in consumer behavior. This capstone project will work with VCharge to analyze the basic economics of their proposed system in comparison to existing heating solutions, and delve into relevant energy policy initiatives and incentives that could make VCharge a competitive if not preferred alternative. This project will involve a mix of research and recommendations related to energy economics and policy including RI Senator Sheldon Whitehouse's Carbon Fee Proposal.