USCMarshall
School of Business

BAEP 476: Green Entrepreneurship

Spring Term – Thursdays – 2 pm – 3:50 pm – 2 Units

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Office Hours: TBA via Zoom / Some in-office or "café" sessions

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Course Description

Rising sea levels. Intensified storms. Climate-induced mass migrations. Around the world, many societies are starting to feel the effects of changes in the environment. Even as some governments delay taking major action to mitigate global and localized effects, social entrepreneurs, private sector players, and municipal/regional governments are filling some of the void. This course is designed for those who view building a generation of creative, informed, socially-minded entrepreneurs as central to building a more sustainable economy.

Countering global warming and other environmental damage may very well take major changes to key parts of the global economy. Entrepreneurs find opportunity in times of change, and many are stepping up to innovate the ways we generate and distribute energy; grow and process our food; move around in our communities and travel over long distances; build our homes; design and manufacture everyday consumer products; and more.

Course Objectives

Green Entrepreneurship aims to inspire future innovators and entrepreneurs, giving them tools they will need to spot opportunities and design compelling, environmentally friendly product/service offerings.

Upon successful completion of this course, students will be able to:

- Identify the localized and global changes in the earth's environment and how they might affect consumer priorities, lifestyles and buying power

- Explain new business models emerging to cope with new realities of resource availability, cost, regulation, etc.

- Describe emerging new technologies, production techniques and other materials enabling environmentally-friendly product and service offerings

- Implement effective methods to find and attract a rising generation of environmentally conscious customers, utilizing established and novel techniques to create marketing messages for new environmentally friendly offerings.

- Identify the basic drivers of ecologically impactful industries/sectors (e.g., food, energy transport, etc.) in order to uncover opportunities for innovation and entrepreneurship

Required Materials

- Digital course pack available for purchase at Harvard Business Publishing (link for purchase distributed via Blackboard)
- Research reports, company profiles and other articles available free of charge, via links provided in syllabus.

This course does not require a textbook.

Prerequisites and/or Recommended Preparation:

No pre-requisites. Students will benefit from having taken an introductory course in entrepreneurship (BAEP 423, BAEP 450, BAEP 451, and/or BAEP 491), but that is not required.

Grading Policies:

REQUIREMENTS

2 Quizzes	12.5%
3 Case/Speaker "Write Ups"	37.5
In-Class Contribution/Participation	15
Final Project (plus short presentation)	<u>35</u>
	100

Quizzes

Two short multiple choice and short answer quizzes will be delivered during the course. The professor will announce these a week in advance. These will be "closed book" quizzes with 10-15 questions each based on assigned course readings. Students must arrange a makeup immediately with the professor if they miss a quiz.

Write Ups

Students will individually submit <u>three</u> write-ups of 1000-1250 words (approximately 3 pages) in length during the term. One write-up must come from the required case readings and one write-up must come from an expert guest discussion, the third may be based on a Case or a Speaker. These ***should not*** be summaries of case/company/speaker facts and the dilemmas facing the companies. Rather, students should assume the grader is familiar with the case and guest company background. The best write-ups will compellingly ***analyze*** the key dilemmas facing the company and discuss learnings on the issues associated with green entrepreneurship. Students are strongly encouraged delve into how lessons from this content may affect their careers and entrepreneurial goals. Case Write Ups are due to Blackboard before a case/reading is discussed in class. Speaker Write Ups are due one week after the speaker's presentation, posted to Blackboard before the next class commences. At least one writeup must be turned in by **19 October**.

Late writeup submissions will not be accepted.

In-Class Contribution/Participation
Robust classroom discussions are essential to the learning experience, especially in a case study and expert guest-driven class environment. Students should be prepared to participate in each class session and also be ready for follow-up questions when they choose to participate. Throughout the term, students should attempt to contribute to the class in different ways (*e.g.*, laying out case facts, presenting analyses, promoting strategic recommendations, bringing in outside knowledge, etc.). Participation is tracked by the instructor in each class with a case study or other student-driven discussion.

The evaluating of in-class participation is based on the following:

- *Relevance* – Does the comment meaningfully bear on the subject at hand? Irrelevant or inappropriate comments can detract from the learning experience.
- *Responsiveness* – Does the comment connect to what someone else has said?
- *Analysis* – Is the reasoning employed consistent and logical? Has data from course materials, personal experience, or general knowledge been employed to support the assertions/findings?
- *Value* – Does the contribution further the understanding of the issues at hand?
- *Clarity* – Is the comment concise and understandable?

Final Project
Students will have three options of equivalent scope for their final individual project:

- **Creation of an environmental "microbusiness":** Students may choose to create a small business over the course of the term that could achieve some results in the time allotted in the course. They will use this as an opportunity to gauge consumer attitudes in a real-world business situation. Students will write a 1750-2250 paper summarizing the experience and capturing the main insights. The project should present results and include elements like photographic documentation of business-building efforts.
- **"20 by 20" Report:** To lay the groundwork for a potential future venture in the green entrepreneurship arena, students will conduct 20 interviews (of 20 questions each) with potential customers of that envisioned business. Students will synthesize key findings about people's consumption patterns, preferences, environmental concerns, price sensitivity, etc. Students will write a 2500-3500 word paper on those findings.
- **Recent Developments Paper/Presentation:** The field of environmental entrepreneurship is changing rapidly—and this could affect the prospects of many kinds of new ventures and initiatives. During the term, students may select an item of importance in the study of green entrepreneurship and write 2500-3500 word paper about it. This paper should be well-research and include at least 10 sources (articles, book chapters, research reports, interviews, etc.) in its works cited list. Some of these "up-to the-minute" papers may deal with:
    - Deep dives on environmental problems around the world (e.g., the wildfire fire crisis, research on links between pandemics and habitat destruction, global food shortages)
    - New technologies, materials and techniques that could impact environmental entrepreneurship
    - Developments in other countries with new business models, etc.

This project is due on Blackboard Monday 4 December at 12 noon, PT. Late submissions will be penalized 5% per day late.

COURSE CALENDAR

** may be used for a Case/Article or a Speaker Writeup

	Topics/ Daily Activities	Readings and Homework	Deliverables and Due Dates
Week 1 Thurs. 24 AUG	**The Promise of Green Innovation**	**Article discussion**: "Roadmap for Natural Capital-ism," Lovins, Lovins, Hawken; HBR ** **Discussion**: Student Introductions & Interests **Course Focus, Expectations and Requirements**	
Week 2 Thurs. 31 AUG	**Starting on The Path**	**Case discussion:** "Terracycle: Outsmarting Waste" ** **Discussion**: Student Introductions & Interests, cont.	
Week 3 Thurs. 7 SEPT	**The Environmental Imperative: Understanding the Challenge**	**Article discussion:** *Living Planet Report, 2022,* World Wildlife Federation (Read into material and Ch. 1-2, pages 1-57) **	
Week 4 Thurs. 14 SEPT	**From Challenge… To Change… To Opportunity?**	**Article discussion:** *Living Planet Report, 2022,* World Wildlife Federation (Read Ch.3, pages 58-103) ** **Article discussion:** TBA (link on BB)	*In-Class Quiz: Living Planet Report*
Week 5 Thurs. 21 SEPT	**Beyond the "Linear Economy"**	**Watch before class:** McDonough, "Cradle to Cradle," Ted Talk (20 mins) **https://www.ted.com/talks/william_mcdonough_cra-dle_to_cradle_design?language=en#t-16724** **Reading:** "The Circular Business Model," Atasu, Dumas, Van Wassenhove, *Harvard Business Review Review* **Article discussion:** "The World's Biggest Brands Have a Garbage Problem. This Man Can Help," CNN **https://www.cnn.com/2019/10/10/business/loop-tom-szaky-risk-takers/index.html** ** (the video and articles in combo can be used for writeup)	

Week 6 Thurs. 28 SEPT	The Investor's Perspective	**Guest Speaker:** Rajil Kapoor, Climatic VC, Founder ** **Reading:** TBA (distributed via BB)	
Week 7 Thurs. 5 OCT	Green by Design: Biomimicry and Biophilia	**Case discussion:** "Ecovative Design LLC: A Biological Materials Startup" ** **Industry Note:** "Biomimicry: Using Nature's Models as Sustainability Design Inspiration for Company Strategy and Products," Darden **Guest Speaker:** Colin Mangham, Biomimicry LA, Net Zero Innovation Accelerator ** *Fall Recess: Thursday, 12 October*	
Week 8 Thurs. 19 OCT	Industry Focus: Food	**Case discussion:** "Barnana" ** **Guest Speaker:** Leslie Mohr, Barnana	
Week 9 Thurs. 26 OCT	Energy: The Lynchpin Industry	**Case discussion:** "Sky Specs: A New Horizon for Wind Energy" ** **Article discussion:** Innovative Energy Architectures—articles links distributed on Blackboard in Announcements **	**Energy Reports:** Begin reading—distributed on Blackboard Content
Week 10 Thurs. 2 NOV	Industry Focus: Fashion	**Guest Panel:** Green fashion ** Ayesha Barenblat, Remake; other TBA **Background Reading:** On BB ** **Via ZOOM**	
Week 11 Thurs. 9 NOV	Energy: The Lynchpin Industry, cont.	**Energy Reports for Quiz: Available on BB** (short discussion after quiz) **Guest Panel:** Debarshi Das, Onyx Power; Craig Merrigan, Spotlight Solar **	In-Class Quiz: **Energy Reports**

Week 12 Thurs. 16 NOV	**Transportation: Getting There…While Going Green**	**Guest Panel:** Dan Singleton, Transient Plasma Systems; Ben Parker, Lightship **	
Week 13 Thurs. 30 NOV	**Industry Focus: The Built Environment: Construction & Real Estate**	**Case discussion:** Building for the Future ** **Guest Panel:** Armelle Coutant, Kit Switch Julieta Moradei, green building VC **	Final paper/project due to Blackboard: Mon. 4 DEC
Week 14 Thurs. 7 DEC	**Summative Experience** (Required for courses with no final)	**Short student presentations on Final Projects** **VIA ZOOM**	

ADDITIONAL INFORMATION

This Course's Policy on Artifical Intelligence Tools

Since creating, analytical, and critical thinking skills are part of the learning outcomes of this course, all assignments should be prepared by the student working individually or in groups. Students may not have another person or entity complete any substantive portion of the assignment. Developing strong competencies in these areas will prepare you for a competitive workplace. Therefore, using AI-generated tools is prohibited in this course, will be identified as plagiarism, and will be reported to the Office of Academic Integrity.

The instructor will explain more about how AI tools might be utilized to expand your knowledge base—even as you create original work on your own.

Add/Drop Process

Most Marshall classes are open enrollment (R-clearance) through the Drop/Add deadline. If there is an open seat, you can add the class using Web Registration. If the class is full, you will need to continue checking Web Registration or the Schedule of Classes (classes.usc.edu) to see if a space becomes available. Students who do not attend the first two class sessions (for classes that meet twice per week) or the first class meeting (for classes that meet once per week) may be dropped from the course. There are no formal wait lists for Marshall undergraduate courses, and professors cannot add students or increase the course capacity. If all sections of the course are full, you can add your name to an interest list by contacting the Office of Undergraduate Advising & Student Affairs (213) 740-0690; if new seats or sections are added, students on the interest list will be notified.

Collaboration policy (for non-quiz/exam assignments).

Students are permitted and encouraged to discuss with others their ideas for completing assignments; however, once a student begins writing the deliverable, all work must be individual and independent. Students may not seek help from anyone outside the class, including but not limited to former students of this course, friends and family, tutors, and online forums. Students may consult course materials and web resources. Students may not post anything related to the assignments online. Failure to abide by the above guidelines may constitute a case of suspected plagiarism or cheating, which will be reported and investigated. For more information about unauthorized collaboration visit https://libraries.usc.edu/tutorial/academic-dishonesty or http://lib-php.usc.edu/tutorials/academic-dishonesty/story_html5.html.

Technology Policy

Laptop and Internet usage is not permitted during academic or professional sessions unless otherwise stated by the respective professor and/or staff. Use of other personal communication devices during academic or professional sessions is considered unprofessional and is not permitted. ANY e-devices (cell phones, iPads, other texting devices, laptops, I-pods) must be completely turned off during class time. Upon request, you must comply and put your device on the table in off mode and FACE DOWN. You might also be asked to deposit your devices in a designated area in the classroom. Videotaping faculty lectures is not permitted due to copyright infringement regulations. Audiotaping may be permitted if approved by the professor. Use of any recorded or distributed material is reserved exclusively for the USC students registered in this class. Exceptions to this policy may be granted to individual students with appropriate documentation on a case-by-case basis.

Open Expression and Respect for All

An important goal of the educational experience at USC Marshall is to be exposed to and discuss diverse, thought-provoking, and sometimes controversial ideas that challenge one's beliefs. In this course we will support the values articulated in the USC Marshall "Open Expression Statement" (https://www.marshall.usc.edu/about/open-expression-statement).

Statement on Academic Conduct and Support Systems

Academic Integrity:
The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the student handbook or the Office of Academic Integrity's website, and university policies on Research and Scholarship Misconduct.

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

988 Suicide and Crisis Lifeline - 988 for both calls and text messages – 24/7 on call
The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL) – 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - (213) 740-0776
OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 740-0411
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101
Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - *UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call*
Non-emergency assistance or information.

Office of the Ombuds - *(213) 821-9556 (UPC) / (323-442-0382 (HSC)*
A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - *(323) 442-2850 or* otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

Emergency Preparedness/Course Continuity

In case of a declared emergency if travel to campus is not feasible, the *USC Emergency Information* web site (http://emergency.usc.edu/) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Blackboard learning management system (blackboard.usc.edu), teleconferencing, and other technologies.

Grade Disputes

All grades assigned by faculty members are final. Students have the right to seek explanation, guidance, counsel and reasons for the assignment of a grade. Faculty may initiate a change in grade if there is an error in the calculation of a grade. Students may appeal a grade according to university policy as set forth in *The USC Student Handbook*. A faculty member may not change a disputed grade outside the formal appeals process. In response to a disputed academic evaluation by an instructor, a student is entitled to two levels of appeal after review by the instructor: first to the chairperson of the department and then to the appropriate dean of the school. The full university policy can be found in *The USC Student Handbook* (https://policy.usc.edu/studenthandbook/) beginning on page 57.

Appendix I

USCMarshall
School of Business

Undergraduate Program Learning Goals and Objectives (last update 12/21/17)

Learning goal 1: Our graduates will demonstrate critical thinking skills *so as to become future-oriented problem solvers, innovators and decision makers in diverse and rapidly changing business environments.*
- Students will demonstrate the ability to anticipate, identify and solve business problems. They will be able to identify and assess central problems, identify and evaluate potential solutions, and translate a chosen solution to an implementation plan that considers future contingencies
- Students will demonstrate the ability to be accurate, clear, expansive (thorough, detailed) and fair-minded in their thinking
- Students will critically analyze concepts, theories and processes by stating them in their own words, understanding key components, identifying assumptions, indicating how they are similar to and different from others and translating them to the real world
- Students will be effective at gathering, storing, and using qualitative and quantitative data and at using analytical tools and frameworks to understand and solve business problems
- Students will understand the concepts of critical thinking, entrepreneurial thinking and creative thinking as drivers of innovative ideas

Learning Goal 2: Our graduates will develop people and leadership skills to promote their effectiveness as *business managers and leaders in the 21st century's evolving work and organizational structures.*
- Students will recognize, understand and analyze the roles, responsibilities and behaviors of effective managers and leaders in diverse business contexts e.g., functionally diverse, culturally diverse, geographically diverse, etc.
- Students will understand factors that contribute to effective teamwork including how to elicit, manage and leverage diverse perspectives and competencies.
- Students will recognize, understand, and analyze the motivations and behaviors of stakeholders inside and outside organizations (e.g., teams, departments, consumers, investors, auditors)

Learning Goal 3: Our graduates will be effective communicators *to facilitate information flow in organizational, social, and intercultural contexts.*
- Students will identify and assess diverse personal and organizational communication goals and audience information needs
- Students will demonstrate an ability to gather and disseminate information and communicate it clearly, logically, and persuasively in professional contexts
- Students will understand individual and group communications patterns and dynamics in organizations and other professional contexts

Learning goal 4: Our graduates will demonstrate ethical reasoning skills, understand social, civic, and professional responsibilities *and aspire to add value to society.*
- Students will recognize ethical challenges in business situations and assess appropriate courses of action
- Students will understand professional codes of conduct

Learning goal 5: Our graduates will develop a global business perspective. They will understand how local, regional, and international markets, and economic, social and cultural issues impact business decisions *so as to anticipate new opportunities in any marketplace.*
- Students will understand that stakeholders, stakeholder interests, business environments (legal, regulatory, competitor) and business practices vary across regions of the world
- Students will understand how local, regional and global markets interact and are impacted by economic, social and cultural factors.

Learning goal 6: Our graduates will understand types of markets and key business areas and their interaction *to effectively manage different types of enterprises.*

- Students will demonstrate foundational knowledge of core business disciplines, including business analytics and business economics
- Students will understand the interrelationships between functional areas of business so as to develop a general perspective on business management
- Students will apply theories, models, and frameworks to analyze relevant markets (e.g. product, capital, commodity, factor and labor markets)
- Students will be able to use technologies (e.g., spreadsheets, databases, software) relevant to contemporary business practices