

San José State University

School: College of Business
Department: Organization & Management
Course Number: Bus 196S
Title: Green Entrepreneurship
Section: 01
Semester: Spring
Year: 2009

Instructor: Professor Anuradha Basu
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Email: anu.basu@sjsu.edu
Office Hours: MW 9:15-10 a.m.
Class Days/Time: MW 10:30-11:45 a.m.
Classroom: BBC104
Prerequisites: Bus 181 (Introduction to Entrepreneurship) or Instructor's approval

Faculty Web Page and MYSJSU Messaging

Copies of the course materials such as the syllabus, major assignment handouts, etc. may be found on my faculty web page accessible through the faculty home page:

www.cob.sjsu.edu/basu_a

You are responsible for regularly checking with the messaging system through MySJSU (or other communication system as indicated by the instructor).

Course Description

This experimental course addresses various aspects of environmentally sustainable entrepreneurship and the opportunities available to start-ups and large businesses to establish sustainable enterprises in the global environment. It explores the opportunities that entrepreneurs create or spot, the challenges they encounter, and the ways in which they exploit opportunities to contribute toward enhancing the long-term ecological system while simultaneously starting and sustaining a profitable business. This course also examines the role of government policy, private investor preferences, technological advances, and public opinion, in affecting the economics of Green entrepreneurship.

Course Goals and Student Learning Objectives

This course aims to develop students' entrepreneurial awareness and skills in the context of green technology, environmental protection, and sustainable development.

By the end of the course, students should be able to:

- Recognize significant global business and ecological environmental trends and the problems that need solving
- Gain an insight into the opportunities offered by environmental trends for creating sustainable "green" ventures
- Understand the risks and rewards of Green Entrepreneurship projects
- Evaluate the mode and sources of finance of Green Entrepreneurship projects
- Prepare a sustainability analysis
- Prepare a feasibility study (mini business plan) for a new business venture that enhances sustainable development and expects to become profitable

Required Text/Readings

There is no textbook for this course. However, the following cover different aspects of green entrepreneurship:

- Esty, D. C., & Winston, A. S. 2006. Green to gold: How smart companies use environmental strategy to innovate, create value, and build competitive advantage. New Haven & London: Yale University Press.
- Friedman, T. 2008 Hot, Flat, and Crowded. Farrar, Straus & Giroux
- Pernick, R. & Wilder, C. 2007. The clean tech revolution: The next big growth and investment opportunity. New York: Collins.

Other Readings

There are several more readings listed in the Course calendar.

Classroom Protocol

Students present the material in a seminar style with the instructor adding value during the discussion, correcting errors through questioning and coaching students but not lecturing more than a 10-15 minute summation from time to time. The course structure is consistent with the learning objective of green entrepreneurship, which assumes empowered participants. Students enjoy the voice they gain through this method. They also gain presentation and facilitation skills and do not sit passively. Teams or individuals students can present depending on the size of the class. Guest speakers will be invited to present on specific aspects.

Please come to class on time and do not leave without the instructor's permission. Only one person has the floor at a time. Please do not speak to your neighbor while the professor or another student is addressing the class. Side conversations will be penalized. Please turn off

all cell phones, don't surf the Internet during class. Computers may not be used in the classroom for any reason other than looking at the course Powerpoint slides. If you have a question or want to make a contribution to the class discussion, please raise your hand.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information on add/drops are available at

<http://info.sjsu.edu/web-dbggen/narr/soc-fall/rec-324.html>

Information about late drop is available at

<http://www.sjsu.edu/sac/advising/latedrops/policy/>. Students should be aware of the current deadlines and penalties for adding and dropping classes.

Assignments and Grading Policy

Sustainability Report: Students will each present a sustainability plan/report from a large public or private company or governmental entity. The Report (2 pages max.) should briefly describe the initiatives undertaken by the company (1 page), followed by an assessment of the depth, scale, and ecological/environmental impact of those initiatives and a conclusion about what opportunities the initiatives might offer new start-ups (1 page). The report must cite ALL complete references (including websites and date consulted). The Reference list can be in addition to the 2-page report. Students should send an electronic copy of their report to the professor one day before the class so that she can distribute it electronically to the other students prior to class. The written report will serve as the basis for the classroom presentation. Due date: Feb 8, 2009.

Sources include: Climate Leaders (<http://www.epa.gov/climateleaders/partners/>), companies listed as members on the Chicago Climate Exchange (<http://www.chicagoclimatex.com/content.jsf?id=64>), those listed as Climate Action Leaders (in the case of California <http://www.climateregistry.org/about/members/climate-action-leaders.html> or comparable registry in another state or country (e.g., European Union), or those listed on Vault's company profiles of environmental initiatives (<http://www.vault.com/bookcontent/GreenPrograms.jsp>). Organizations not included in the preceding lists should be cleared with the instructor because too many companies just lump any efficiency program, safety, training or CSR effort together and call it sustainability.

Entrepreneurial company research: Students will choose a clean tech/green sector that interests them and profile three companies founded in the past 3 years in that sector. The report will specify the sector chosen, describe what problem each company aims to solve, how they are trying to solve it, what market/customers they are going after, who their target competitors are, and what seems to be unique about the company. Evaluate the three (or four) main hurdles that each company will need to overcome to be successful. Your grade will be determined by how well you demonstrate an understanding of the companies' strategies and present it in class. The report must cite ALL complete references (including websites and date consulted). Students should send an electronic copy of their report to the

professor one day before the class so that she can distribute it electronically to the other students prior to class. The written report will serve as the basis for the classroom presentation. (Max. length: 3 pages).

Sources: Since environmental sustainability as a business opportunity is the focus of the course, students would be advised to investigate opportunities in clean/green tech. See <http://www.jointventure.org/programs/initiatives/climateprotection/climateprotection.html> and click on 'clean tech companies'. For green tech start-ups funded by venture capital, see websites of VC firms like Kleiner Perkins Caufield & Byers (<http://www.kpcb.com/portfolio/portfolio.php?greentech>) or Khosla Ventures (<http://www.khoslaventures.com/>) and click on 'our renewable portfolio'.

Mid-term and Final exam: These will have essay questions.

Mini Business Plan: Groups of students will work together to propose entrepreneurial solutions to pressing environmental or social problems. Examples of such projects could include products or services that will contribute toward reducing energy consumption, conserve energy and water, water purification and filtration, improve waste management, scrap reduction, or utilize alternative energy sources. Teams will write their mini business plans in stages and present them toward the end of the course. The plans will be reviewed and ranked by local entrepreneurs and/or investors.

Further details regarding deliverables and due dates will be provided at the start of the semester.

Class Participation, Presentation of chapters/readings: Becoming actively engaged in the subject matter is an essential part of learning. Good participation is based on good preparation. You are expected to read and understand all assignments before coming to class. In order to participate, you have to be present in class. As part of class participation, over the course of the semester, students will need to bring in recent journal articles with respect to Green entrepreneurship. These should be magazine or academic journal articles, not short newspaper articles. The student should give a summary of the article, as well as listing 3 important points from the article. Students will also present highlights of the assigned chapters/readings or introduce provocative or interesting points. They are encouraged to do so creatively, using quizzes, videos or other techniques. Power point presentations are also allowed, as long as they don't simply summarize the material.

Course Evaluation:

Your grade will be determined by the following:

Sustainability analysis	10%
Entrepreneurial company research	10%
Midterm Exam	15%
Final Exam	20%

Class Participation, Presentation of chapters/readings	20%
Team Project: mini Business Plan	25%
Total	100%

a. Grading information:

Grading Percentage Breakdown

94% and above	A
93% - 90%	A-
89% - 87%	B+
86% - 84%	B
83% - 80%	B-
79% - 77%	C+
76% - 74%	C
73% - 70%	C-
69% - 67%	D+
66% - 64%	D
63% - 60%	D-
below 60%	F

b. Extra credit options, if available:

Up to 5 bonus points may be awarded at the instructor's discretion for attending and participating in special entrepreneurship-related events that are open to all students in the class. Special events include the Eminent Speaker series organized by the Silicon Valley Center for Entrepreneurship and events arranged by the Entrepreneurial Society. Students attending these talks by eminent entrepreneurs and industry leaders must sign the registration sheet and send me a short memo afterwards (by email or by hand) on three main learning points from the talk.

University Policies

Academic integrity

Students should know the University's Academic Integrity Policy that is available at http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University's integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for Student Conduct and Ethical Development is available at http://www.sa.sjsu.edu/judicial_affairs/index.html

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in the College of Business (BBC building). Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

Learning Assistance Resource Center

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support

services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. The LARC website is located at

<http://www.sjsu.edu/larc/>

SJSU Writing Center

The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers.

The Writing Center website is located at

<http://www.sjsu.edu/writingcenter/>

Peer Mentor Center

The Peer Mentor Center is located on the 1st floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop –in basis, no reservation required. The Peer Mentor Center website is located at

<http://www.sjsu.edu/muse/peermentor/> .

College of Business Policies:

To ensure that every student, current and future, who takes courses in the Boccardo Business Center has the opportunity to experience an environment that is safe, attractive, and otherwise conducive to learning, the College of Business at San José State has established the following policies:

Eating:

Eating and drinking (except water) are prohibited in the Boccardo Business Center. Students with food will be asked to leave the building. Students who disrupt the course by eating and do not leave the building will be referred to the Judicial Affairs Officer of the University.

Cell Phones:

Students will turn their cell phones off or put them on vibrate mode while in class. They will not answer their phones in class. Students whose phones disrupt the course and do not stop when requested by the instructor will be referred to the Judicial Affairs Officer of the University.

Computer Use:

In the classroom, faculty allow students to use computers only for class-related activities. These include activities such as taking notes on the lecture underway, following the lecture on Web-based PowerPoint slides that the instructor has posted, and finding Web sites to which the instructor directs students at the time of the lecture. Students who use their computers for other activities or who abuse the equipment in any way, at a minimum, will be asked to leave the class and will lose participation points for the day, and, at a maximum, will be referred to the Judicial Affairs Officer of the University for disrupting the course. (Such referral can lead to suspension from the University.) Students are urged to report to their instructors computer use that they regard as inappropriate (i.e., used for activities that are not class related).

Academic Honesty:

Faculty will make every reasonable effort to foster honest academic conduct in their courses. They will secure examinations and their answers so that students cannot have prior access to them and proctor examinations to prevent students from copying or exchanging information. They will be on the alert for plagiarism. Faculty will provide additional information, ideally on the green sheet, about other unacceptable procedures in class work and examinations. Students who are caught cheating will be reported to the Judicial Affairs Officer of the University, as prescribed by Academic Senate Policy S04-12.

Tentative Course Calendar

This schedule is subject to change with fair notice. Students will be notified in class and/or via Blackboard.

Week	Topic	Readings/Assignments Due in class
Wk 1 1/26	Introduction & Syllabus review, Assignments/due dates; what is Green Entrepreneurship?	Show Up! See http://www.turninggreengold.com/2007/what-is-a-green-entrepreneur/ http://www.environmentalprograms.net/guidance/eco-entre/
1/28	Why Go Green? The forces driving green entrepreneurship	<ul style="list-style-type: none"> • Intro <u>Clean Tech</u> • Intro, Ch 1. <u>Green to Gold</u> • Ch 1. <u>Hot, Flat, and Crowded</u> • “A Road Map for Natural Capitalism” <u>HBR</u>
Wk 2 2/2	The Current Resource and Environmental Crisis	<ul style="list-style-type: none"> • Al Gore <i>An Inconvenient Truth</i> • Ch 2. <u>Green to Gold</u> • Ch 2, 3. <u>Hot, Flat, and Crowded</u> • Brown, Lester R. “Is World Oil Production Peaking?” <i>Earth Policy Institute</i>. Nov 2007. http://www.earth-policy.org/Updates/2007/Update67GA.htm?gclid=CMAAr-jXvZQCFS0Zag0dNE4GTQ • The Future of Energy <u>The Economist</u> June 21-27th http://www.economist.com/opinion/displaystory.cfm?story_id=11580723
2/4	Tragedy of the Commons, Market and Political Failures	<ul style="list-style-type: none"> • Hardin, Garrett, “Tragedy of the Commons,” <i>Science</i>, 162 (1968):1243-1248 http://www.sciencemag.org/cgi/content/full/162/3859/1243 • Cowen, Tyler. “Public Goods and Externalities.” <i>The Concise Encyclopedia of Economics</i>. 2002. http://www.econlib.org/library/Enc/PublicGoodsandExternalities.html
Wk 3 2/9	The Human Forces Behind Greening: role of large companies	<ul style="list-style-type: none"> • Ch 3 <u>Green to Gold</u> • Presentation/Discussion of Sustainability Reports
2/11	Government Policy and Business Beyond Regulations	<ul style="list-style-type: none"> • Ch 3 <u>Green to Gold</u> • Donald A. Geffen, Ph. D. and Alfred A. Marcus, Ph. D. “Competitive Implications of Environmental Regulation in the Electric Utility Industry.” <i>EPA</i>. June 1996. http://yosemite.epa.gov/ee/epa/erm.nsf/vwSER/2BFF57CEB2773D078525644D0053BE97?OpenDocument • “Green and Competitive: Ending the Stalemate” <u>HBR</u>

Wk 4 2/16	Is Going Green Win-Win? A Contrarian Point of View	<ul style="list-style-type: none"> • “It’s Not Easy Being Green.” HBR
2/18	About Solar Energy	<ul style="list-style-type: none"> • Ch 1 Clean Tech • “How Solar Energy Works.” <i>Union of Concerned Scientists</i>. May 5, 2008. http://www.ucsusa.org/clean_energy/renewable_energy_basics/how-solar-energy-works.html • Ayre, Maggie. “The Pros and Cons of Solar Power.” <i>BBC</i>. Feb 7 2008. http://news.bbc.co.uk/1/hi/sci/tech/7232328.stm • Morrison, Chris. “D.light Design sets out to replace the kerosene lamp, with eco-friendly lighting for India.” <i>VentureBeat</i>. June 2008. http://venturebeat.com/2008/06/16/dlight-design-sets-out-to-replace-the-kerosene-lamp-with-eco-friendly-lighting-for-india/
Wk 5 2/23	The Future of Solar	<ul style="list-style-type: none"> • A Case study of Solar Ice
2/25	Entrepreneurial Company profiles and analyses	<ul style="list-style-type: none"> • Presentation and discussion of Entrepreneurial company profiles
Wk 6 3/2	The Potential of Wind Energy	<ul style="list-style-type: none"> • Ch 2 Clean Tech • How Wind Energy Works.” <i>Union of Concerned Scientists</i>. May 7, 2007. http://www.ucsusa.org/clean_energy/renewable_energy_basics/how-wind-energy-works.html • “Wind Energy FAQ.” AWEA. http://www.awea.org/faq/windpower.html • “Basics: Energy Output of Wind Turbines.” AWEA. 1999. http://www.awea.org/faq/basicen.html
3/4	Bio-Fuels: The Problems and the Promise	<ul style="list-style-type: none"> • Ch 3 Clean Tech • Bourne Jr., Joel K. “Green Dreams.” <i>National Geographic</i>. Oct 2007. http://ngm.nationalgeographic.com/2007/10/biofuels/biofuels-text/1 • Walton, Marsha. “Algae: The Ultimate in Renewable Energy.” <i>CNN</i>. April 1, 2008. http://www.cnn.com/2008/TECH/science/04/01/algae.oil/index.html
Wk 7 3/9	Sustainable Agriculture	<ul style="list-style-type: none"> • James Hrubovcak, Utpal Vasavada, and Joseph E. Aldy. “Green Technologies for a More Sustainable Agriculture.” <i>US Department of Agriculture</i>. June 1999. http://www.ers.usda.gov/publications/aib752/aib752.pdf • Shorto, Russell, “A Short-Order Revolutionary”, <i>New York Times Magazine</i>, January 2004, http://www.organicconsumers.org/organic/shortorder011204.cfm
3/11	Mid-term exam	

Wk 8 3/16	Efficiency is the New Black	<ul style="list-style-type: none"> • Pg. 129-167 <u>Clean Tech</u> • Lohr, Steve. "Data Centers Are Becoming Big Polluters, Study Finds." <i>New York Times</i>. May 1, 2008. http://bits.blogs.nytimes.com/2008/05/01/data-centers-are-becoming-big-polluters-study-finds/ • An example of efficiency being the foundation for a business: http://www.copansystems.com/solutions/greening_the_datacenter/
3/18	Process Improvement	<ul style="list-style-type: none"> • "Growth Through Global Sustainability." <u>HBR</u>. • Chen, Daniela. "Converting Trash Gas into Energy Gold." <i>CNN</i>. July 17, 2006. http://www.cnn.com/2006/TECH/05/25/landfill.gas/index.html • Mitchell, Robert L. "Power Trip: The Case for Cogeneration." <i>ComputerWorld</i>. Aug 21, 2007. http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=9031539&pageNumber=1
	Spring Break	
Wk 9 3/30	Water: A Necessity in Short Supply	<ul style="list-style-type: none"> • <u>Ch 8 Clean Tech</u> • Pentland, William. "Inventing Water's Future." <i>Forbes</i>. June 19, 2008. http://www.forbes.com/2008/06/19/new-water-technology-tech-water08-cx_wp_0619waterstartups.html
4/1	Ecosystem Services	<ul style="list-style-type: none"> • Costanza, Robert, et al, "The Value of the World's Ecosystem Services and Natural Capital", <i>Nature</i>, May 1997, http://www.uvm.edu/giee/publications/Nature_Paper.pdf • Joshua Bishop and Lloyd Timberlake. "Business and Ecosystems." <i>WBCSD</i> and <i>IUCN</i>. http://www.wbcd.org/DocRoot/Qx4WB0UOE0IZ4HgOTrh/market4ecosystem-services.pdf • Juniper, Tony. "Wonders of the Waste Land." <i>The Guardian Weekly</i>. Aug 6 2004. http://www.mindfully.org/Water/2004/Kolkata-Wetlands6aug04.htm
Wk 10 4/6	Recycling Makes Business Sense	<ul style="list-style-type: none"> • "Recycling for Profit" <u>HBR</u> • "HP Innovates "Closed Loop" Inkjet Cartridge Recycling Program, Gives Plastic Water Bottles Second Life" <i>HP</i>. Jan 30, 2008. http://h41131.www4.hp.com/ca/en/pr/hp-innovates--closed-loop--inkjet-cartridge-recycling-program--gives-plastic-water-bottles-second-life.html
4/8	Building Competitive Advantage; Managing the Downside	<ul style="list-style-type: none"> • Ch 4 <u>Green to Gold</u>
Wk 11	Building Competitive Advantage; Building the	<ul style="list-style-type: none"> • Ch 5 <u>Green to Gold</u>

4/13	Upside	
4/15	Green Marketing	<ul style="list-style-type: none"> • Ch 10 <u>Clean Tech</u>
Wk 12 4/20	Avoiding the Green Marketing Myopia	<ul style="list-style-type: none"> • Jacquelin A. Ottman, Edwin R. Stafford, and Cathy L. Hartman. "Avoiding Green Marketing Myopia." <i>Environment</i>. Vol.48. No.5. pgs 22-36. June 2006. http://www.greenmarketing.com/files/articles/Stafford-MyopiaJune06.pdf • Ottman, Jacquelin A. "The 5 Simple Rules of Green Marketing." <i>Sustainable Life Media</i>. http://www.greenmarketing.com/files/articles/The5SimpleRules.pdf
4/22	Greening the Supply Chain	<ul style="list-style-type: none"> • Ch 7 <u>Green to Gold</u> • Ch 8 <u>Green to Gold</u>
Wk 13 4/27	Business Plan prep session	<ul style="list-style-type: none"> •
4/29	Business Plan presentations	<ul style="list-style-type: none"> • Final Business Plans due
Wk 14 5/4	Challenges and Pitfalls to Avoid	<ul style="list-style-type: none"> • Ch 10 <u>Green to Gold</u>
5/6	The Curious Predicament of Vermilion Paper Co.	<ul style="list-style-type: none"> • "The Case of the Environmental Impasse" <u>HBR</u>
Wk 15 5/11	Where's the Money?	<ul style="list-style-type: none"> • "How to Raise Capital for Your Business." <i>Go4Funding</i>. Online. http://www.go4funding.com/Articles/Business-Funding/How-To-Raise-Capital-For-Your-Business.aspx • "Funding Your New Business." <i>CitiBank</i>. 2006. http://www.citi.com/citigroup/financialeducation/d/ata/citi_section9.pdf • Gangemi, Jeffrey. "Green Growth Areas for Entrepreneurs." <i>BusinessWeek</i>. June 20, 2006. http://www.businessweek.com/smallbiz/content/jun2006/sb20060620_080126.htm
5/13	Course Wrap up: Tying it all Together	<ul style="list-style-type: none"> • Ch 12 <u>Green to Gold</u> • "Bringing the Environment Down to Earth" <u>HBR</u>
5/15	Final Exam: Friday May 15 th , 0945-1200	