

SYSTEMS THINKING AND SUSTAINABLE BUSINESSES

Course Syllabus, Spring 2005
1240 Grainger Hall

IES 400, LECTURE 1
GEN BUS 765, LECTURE 1
GEN BUS 365, LECTURE 1

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A Joint Effort of the
SCHOOL OF BUSINESS
And the
GAYLORD NELSON INSTITUTE FOR ENVIRONMENTAL STUDIES
UNIVERSITY OF WISCONSIN - MADISON

Objectives:

This course is for students interested in the role of systems thinking in finding a way to implement the concept of sustainability. In spite of its name, this is not a course about theory, but will look at ways that the concept of sustainability can be operationalized. In short, this is a course about taking the idea of sustainability into the real world.

Sustainability (or sustainable development – I use the terms interchangeably) refers to balancing economic progress with environmental care and concern for the community. For many companies, this means maximizing economic performance while minimizing the environmental impact of operations and contributing to community development.

Increasingly, sustainable development is being recognized as a driver of innovation and value creation in the private sector while at the same time protecting an organization's standing in the community. Though this is not solely a class about the corporate response to society's growing interest in corporations (both from a social and environmental perspective), it is clear that business plays a central role in our progress (or our lack of progress) toward sustainability. As one of, if not THE, dominant social institutions of our time, corporations have the financial resources, the technology, the know-how and the global reach to lead the quest for a more sustainable relationship with the natural world. Without the involvement of the business community in reshaping how we think about our individual and collective responsibility to the earth and future generations, our chances of successfully navigating the very troubled waters ahead of us are slim.

This class brings together Business School students with students from the Gaylord Nelson Institute for Environmental Studies (and other schools and programs on campus) to dialogue on the relevance of sustainability in a focused and constructive way. It has been organized to give you better insights into how sustainable development can be a part of most decisions that are made, whether at the individual lifestyle level or at the organizational level. The class will consist of lectures supplemented with student discussions based on readings and case studies, and information gathering and writing about ways that we can change things right now so that as a society we are able to live in a more sustainable manner.

The key benefits of the class include:

- understand sustainable development as an important element of business practices and a value driver
- see how environmental and social issues are an integral (and complex) part of the landscape in which business operates
- learn about emerging trends in institutional investment that are pushing sustainable development further into mainstream investing
- appreciate the inter-relatedness of business systems and natural systems
- help identify next steps to better leverage sustainable development activity in your personal lives

WARNING: This class carries a relatively heavy reading load for most of the semester. You will be required to indicate that you have done the readings each week (see below). You will learn as much from the preparation of the readings as you will from the lectures. It is essential therefore that you **be present and be prepared to discuss** the major themes from the readings.

This is not a course geared toward "passive learning". Your purpose for being in this class should not be to passively receive information from "experts", but rather to actively engage in your own inquiry and restructure your thoughts about, and your relationship with, the concept of sustainability.

A substantial amount of "out-of-class" time will be required as you work with classmates toward the production of a final project.

This class will formally introduce the concept of personal integrity through your responses to the readings each week. This university does not teach about the importance of integrity in any systematized way; however, I believe that any individual's future success in whatever they choose to do is attributable, to a large degree, to their personal integrity. I recently saw a chairman of the board pass along this advice regarding integrity, "In whatever organization you find yourself, remember that people talk. And it's not all idle gossip. Our cultures learn to protect themselves by getting the word out about people whose honor is doubtful. You'll never be more valuable than your reputation for honesty and integrity. Healthy organizations also spread the word about people of incorruptible honesty. So tell the truth, deliver what you promise, let your caring show, and you'll be noticed."

*Therefore, I will ask that you email the class each week brief comments, reflections or questions from the readings you have done. Please don't send me anything if you haven't really done **ALL** the readings--ala the integrity issue. To say it again, even with the best of intentions sometimes work just doesn't get done. If your actions are guided by your integrity, you will not submit anything that week.*

As described above, each week you will be asked to post an email to the class listserv (systems-thinking@lists.students.wisc.edu) that contains brief comments, reflections or questions about the week's readings, due by 10:00 p.m. on the Sunday before class. For example, this email might reflect your understanding of the readings and the relationship of the readings to each other or to one (or more) earlier classes. One way to do this is to pick a sentence or so each week that you would like to put up on your refrigerator, mirror, etc and reflect on why that sentence is one that you would want to remember. Keep your responses **SHORT!** There will be a lot of responses each week, and if we all are to get through everything that is written, keep your response to a paragraph or two.

You will also be assigned two short writing assignments during the semester. Short means 2 pages (standard margins, **single spaced** and 10 point or 12 point font). It is important to note that you will be graded on both the content and your writing skills. This means that your story or your factual arguments and logic are given equal weight with grammar, paper organization, development of your ideas, and other writing skills. Being able to say what you need to say concisely is an important skill to learn.

Felix Wolfinger will be the TA for the class. He will host a sort of voluntary discussion section each Wednesday. This discussion section arose from student requests for more time to talk about some of the ideas and issues that arise in the readings, or that the guest speakers talked about. At the beginning of the semester, I recommend that you attend a discussion section to judge for yourself whether this is something that you want to attend regularly (think about these as optional review sessions before an exam). Once project teams are set up, at least one member from each project team is required to attend to provide an update on their team's progress. No exceptions for this. You must have one member from your team at each week's discussion section. These are designed to be a way to get you started on your projects early in the semester.

Einstein said “*The significant problems we have cannot be solved at the same level of thinking with which we created them.*” We need to think about things differently in order to really find ways out of the boxes in which we have painted ourselves. Thus, even though you did not sign up for a humanities class, you will be required to do some creative work. This creative work is designed to get you guys using the creative sides of your brain, not just the analytical side, so humor me here. For eight of the weeks, I will ask you to write poetry. I will send you an assignment to help focus you, but you do not need to do the assignment. You do however, need to write three poems each week. Poems can be long or short, rhyming or not, but they must be somehow about your awareness of the world, your relationship with the earth, or your relationship with each other or the place that you are living.

Finally, you will work in groups on a project that will not only satisfy a major portion of your grade, but will also satisfy a research and analysis need of a local business or non-profit. This assignment is described in more detail in a handout to be provided during the first class period. The first part of your final paper will provide the basic detail about a sustainability topic identified by your client. This part of the paper should then serve as background material for your recommendations on how to meet your client’s needs. You will be asked to recommend an action or develop a plan, and describe how it could be implemented by your client. In general, your final project will be an advocacy piece to convince a decision-maker to take an action. You must develop your most convincing argument(s) and be prepared to answer objections (it costs too much, no one would want to do this, etc.). This is NOT your traditional academic paper, and if you insist on writing a traditional research paper, you will have missed the point of this assignment. You must talk with your client, and quite probably others in the field, as you undertake your project. I think you will find it useful to distinguish the kind of writing you have learned to do in an academic setting from the kind of writing you will be asked to do in the real world.

GRADING

20% of your final grade will be based upon Citizenship - includes attendance, teamwork on project, classmate respect and support, attitude, interest, appreciation, enthusiasm, active and productive participation and attention in class, showing familiarity with readings and knowledge of topics.

20% of your final grade will be based upon your papers.

15% of your final grade will be based upon your poetry.

35% of your final grade will be based upon your paper.

10% of your final grade will be based upon your presentation of your final paper.

In fairness to others in the class, late submissions of the written material will be penalized at a rate of 20% of the submission's value per day (e.g., your final papers presented one day late will receive at most a weight of 28 out of the 35 points available).

LIST OF MATERIALS

Books:

The Fifth Discipline, by Peter Senge (New York, NY. Currency Doubleday, 1994) \$18.95

The Lorax, by Dr. Seus (New York, NY Random House, 1971). \$14.95

Birth of the Chaordic Age, by Dee Hock (San Francisco, CA. Berrett Koehler Publishers, 1999)
\$27.95

The New Economy of Nature: The Quest to Make Conservation Profitable, by Gretchen Daily and Katherine Ellison (Washington, D.C. Island Press, 2002) \$15.00

REQUIRED READINGS:

Reading Packet available from Underground Textbook Exchange and printed on 100% post-consumer recycled paper (meaning that this is paper made from the paper that is recycled at the university and government buildings)

Recommended Books: The Soul of Capitalism, by William Greider (New York, NY, Simon & Schuster, 2003) \$14

January 24) *Introduction*

The first class is designed to accomplish six things. First, the goals, purposes, structure and format of the class will be made clear through a review of the syllabus and other relevant materials. Second, students will fill out information about themselves and indicate what grade they intend to work for in the class. Third, we will discuss the purpose and structure of the creative exercises that you will be asked to do. Fourth, we will discuss the final project with representatives from some of the potential clients. Fifth, we will work in teams to solve a problem that requires that we start thinking outside of the box. Finally, we will define sustainability and start talking about what we mean when we use this term.

January 31) *Operationalizing Sustainability: 2005: The Year in Preview*

Jill will talk about what she sees happening in the year to come. When we talk about operationalizing sustainable development – what does it mean? To help answer this question, Jill will talk about what companies are doing currently (and what the leaders will be doing over the course of the next year) She'll combine stories about what is happening in this country, with what is happening overseas. And she'll talk about what is happening within the governmental sector in this country.

GUEST LECTURER: Jill Cooper, Senior Advisor, CO Department of Public Health and Environment

READINGS. Revealing the Value of Sustainable Development, by Joseph Fiksel, Corporate Strategy Today, monograph series available at www.ahcgroup.com.

Going Organic: Converting Patagonia's Cotton Product Line by Yvon Chouinard and Michael Brown, case study published in Vol 1 No. 1 Journal of Industrial Ecology, 1997.

Birth of the Chaordic Age, 1- 111

February 7) *The Business Side of Operationalizing Sustainability*

As we continue to explore how sustainability might change how both the private and public sectors work, it is important to get grounded in the systems that businesses operate by. John will do an overview on the business case for sustainability.

There are many systems that need to be accounted for in the business world. These systems include the legal system, the design - manufacturing - marketing system, the accounting and purchasing systems and such related (but external to the firm) systems such as the financial system (how firms get money), the insurance and risk management system and the prevailing economic system (capitalism). These systems generally function to protect the status quo and increase predictability for business, but they can also be used as allies in bringing about change. In order to use these systems as allies, firms must better understand how these systems currently shape firm actions. A few firms are engaged in seeking to understand a new role for the firm within these systems.

GUEST LECTURER: John Surdyk, Managing Partner, Re-envision

READING: New Belgium Brewing Company: Brewing with a Conscious by Christopher Asher, Elina Bidner & Christopher Greene, case study from Univ of Colorado at Boulder (2002).

The Fifth Discipline, Introduction – p. 54

February 14) *Systems Thinking and Sustainability*

Systems thinking has so much to do with sustainability, that it will be a theme that constantly reappears in our discussions throughout the semester. Systems thinking is a mental framework for seeing interrelationships rather than things, seeing patterns of change rather than static 'snapshots', and viewing societies and economies as integrated parts of the biosphere. Understanding what we mean when we talk about systems thinking is thus critical. For many people, systems thinking helps explain why we have found ourselves in the mess we are in. The flip side of that coin, is that systems thinking explains why we are so well off, even given all the stupid stuff we are doing. Tim will start the discussion on systems thinking which we will return to at several points during the semester.

GUEST LECTURER: Tim Allen

READINGS: Systems Thinking – a Mental Model for Sustainable Futures, published in Sustainable Development Update, Issue 1, No. 4, 2004.

Places to Intervene in a System by Donella Meadows, Whole Earth, Winter 1997.

Dancing with Systems by Donella Meadows, published in Timeline, Mar/Apr 2004 (available on-line at <http://www.globalcommunity.org/timeline/74/index.shtml#1>).

Birth of the Chaordic Age, 112-194

February 21) SYSTEMS THINKING AND BUSINESS DRIVERS

Systems serve to protect the status quo. Before you understand anything else about systems, you must understand this point. However, all systems can also be used to change the status quo. With the proper pressure, systems can be a powerful ally in bringing about change – even while they are protecting the status quo. Illogical? Not at all.

GUEST LECTURER: Claudia Haack, founding member of the Chaordic Commons, and consultant with Sonant Strategies

READINGS: Selected excerpts from the Sacred Balance by David Suzuki, Prometheus Books, Amherst, NY 1998.

Total Corporate Responsibility: Achieving Sustainability and Real Prosperity by Frank Dixon, personal communication (2003).

Forest Stewardship Council, by James Austin, Case Study from the Harvard Business School, No. 9-303-047 (2003).

Birth of the Chaordic Age, pp. 195 - 311

PAPER ASSIGNMENT: Working in pairs, you are to read the Dr Seuss classic “The Lorax”, and then write your own children’s story about an environmental issue. You can choose from one of the following issues, or choose one of your own: global warming, species extinction, over-population, over-consumption, build-up of toxics in our world, ozone hole, growing dead areas in our oceans, starvation, accessibility to clean water, soil loss/erosion, vanishing rainforests, or plunging fish stocks. You may illustrate your story – and the illustrations need not be your own (you can use illustrations from magazines, the internet, graphics software programs, newspapers or anywhere else). It does not need to be as long as

The Lorax. Decide on the point(s) that you want to make and how you can explain this point so that a child can understand it. This is going to be hard, so two of you can exercise your creativity together.

February 28) *Translating sustainability into what we can do now*

Randy Gates, Andy Miller, Beth Campbell, and David Horneman promote a wide variety of local projects that operationalize sustainability, especially through natural building, green construction, and permaculture. They are all involved in Madison's Urban Ecovillage, a community that supports these goals. They also work with Acorn Enterprises, a natural/green construction and landscaping company. In addition, Randy Gates co-founded a nonprofit organization, Outta The Box, that organizes community-building projects that educate about natural building and edible landscaping. More information: www.outtathebox.org, www.acornent.com

Tona Williams is a filmmaker and sociologist who has produced films that allow people to see things differently, hopefully building support for change. Among them is a series called Earth Walls, that focuses on natural building and sustainability and features the work of Outta The Box. She is also Co-Director of Wis-Kino, a filmmaking collaborative that hosts monthly screenings of short films in Madison. Wis-Kino is part of an international group of filmmakers called Kino, which has over 40 cells in 11 countries. More information: <http://tona.bigbite.org/film> (view films online here) and <http://www.wis-kino.com>

This group of collaborators will talk about why they do what they do, how they got started, and what has happened as a result of making the films and completing the projects in which they have been involved.

GUEST LECTURER: Tona Williams, Randy Gates, Andy Miller, Beth Campbell and David Horneman

READINGS: Lines in the Mind, Not in the World by Donella Meadows, published in Timeline, Jan/Feb. 2002 pp. 19-21.

One Man's Drive... One Company's Courage by Charles Fishman, published in Fast Company, Issue 71, June, 2003 (available on-line at <http://pf.fastcompany.com/magazine/71/courage.html>).

Deja Shoe (A) & (B), by Paul Hardy, Case study from Corporate Environmental Management Program, 1996.

The Fifth Discipline, p. 57 - 232

March 7) *One Company's Leadership in Thinking Sustainably*

In order for you to understand how the ideas we have been talking about actually apply in the real world, a real CEO from a real printer that is committed to leading his industry will be with us. In addition to his responsibilities as a CEO, John writes a weekly column for the Milwaukee Journal/Sentinel on the importance of businesses thinking beyond the single bottom line. He also will talk about why environmental and social issues are business issues, and not issues that should be ignored by the business community.

GUEST LECTURER: John Torinus, CEO, Serigraph Printers, West Bend

READINGS: Achieving High Performance: CSR at the Heart of Business by Stephen Bevan, Nick Isles, Peter Emery and Tony Hoskins, published by the Work Foundation, 2004.

State Business Leaders Learn How to Think Green in Bavaria by John Torinus, published in the Milwaukee Journal Sentinel, Oct 23, 2004 (on-line at <http://www.jsonline.com/bym/news/oct04/268802.asp?format=print>).

The Fifth Discipline, p. 233 - 371

PAPER ASSIGNMENT: Second paper due. In preparing for this paper, you are required to make an appointment with a Congressperson, Senator, state legislator, Governor, Mayor, County Supervisor, County Board representative or city council representative and discuss with them what their main priorities are for the future. Go into this interview with a set of questions that will allow you to understand where their main interests lie. After gathering this background information, your paper is a series of recommendations to the person that you interviewed on how they can incorporate the concepts of sustainability into the issues that are important to them. You are to send them a copy of your paper, with a copy to me.

Your paper can not exceed two single spaced pages with regular margins and no smaller than a 10 point font. It must indicate what the key issues of the person you talked to are, and then you must weave your recommendations into these issues. For instance, if a key issue was tax reduction, you could recommend how taxing pollution is far superior to taxing people's labor, and that subsidies are in fact working against sustainability principles, at least in many instances.

The important point with this assignment is to get started early. It will require making an appointment and talking with one of the above people before you can write this paper.

March 14) *Making the Business Case for Sustainability: Socially Responsible Investing and the Role of the Financial Community in Sustainable Development*

Hopefully by now you will realize that sustainability (also called corporate social responsibility) should be on the radar screen of every business. There are tremendous benefits to those businesses that successfully understand and integrate these concepts into their decision making. Or are there? Is this just a bunch of liberal BS? John will talk about how the market is rewarding those businesses that are staking out some territory in the environmental and social responsibility area. One way to encourage businesses to begin exploring what sustainability might mean to them is to get their attention through investment decisions. More and more people are choosing to invest their dollars only with companies that pass certain environmental and social screens. Investing with a conscience is the area of greatest growth in the investment community.

GUEST LECTURER: Bruce Kahn, Financial Consultant, Smith Barney, NY

READINGS: Letter to the Editor from Paul Hawken, The Green Money Journal, (Feb/March, 2003)

Working Capital: Can Socially responsible Investing Make a Great Green Leap Forward by Marshall Glickman and Marjorie Kelly

Social Investing: Challenging Institutional Investors to Meet their Fiduciary Responsibilities, by Timothy Smith, published by the Social Investment Forum (2004)

Anatomy of a Corporate Campaign: Rainforest Action Network and Citigroup (A), case study published by Stanford University (2004).

The New Economy of Nature, 1-85

March 28) *Making the Business Case for Sustainability: Reputational Risk*

Think about this list of companies, Johnson & Johnson, Nike, Exxon, Microsoft, Shell, Union Carbide, the Gap, Firestone and IBM. Is their reputation positive or negative? Do you know why you have a positive or negative feeling for each of these companies? Do you think that positive or negative reaction to the corporate name affects the company in the marketplace?

Corporate reputation is extremely important to most businesses. It often goes to their “social license to operate”, which is granted by society. Though we no longer have the ability to revoke a corporate charter when it no longer serves the public purpose that the corporation was originally created to serve, we have recently seen the equivalent of this power with companies like Arthur Anderson. They stopped attracting clients and were eliminated from the marketplace. Thus, reputation is something that many companies care a great deal about.

Dan will talk about his recent research in this area, and how companies are responding to the threat of boycotts and public criticism while trying to attract positive press.

GUEST LECTURER: Dan Anderson, Leslie P Schultz, Professor of Risk Management and Insurance.

READINGS: BAT says it will sacrifice income to join war against smuggling from The Guardian, Feb. 27, 2002.

Interface’s Evergreen Services Agreement, Harvard Business School Case Study No. 9-603-112 (2003)

The New Economy of Nature, 87 - 163

April 4) *Personal Values and the Challenge of Sustainability*

The importance of hope is central to the message that I want you to leave this class with. Hope comes in all shapes and forms. Too often we hear messages about the environment that fill us with fear. Now is the time to put fear behind us, and to realize how many reasons there are for hope.

VIDEO: Celebrate What’s Right with the World, by DeWitt Jones

READINGS: Beyond Sustainability: From Scarcity to Abundance, published in BioInspire, vol 13, Feb 2, 2004.

Patagonia: The Next Hundred Years, by Yvon Chouinard, excerpt from Sacred Trusts: Essays on Stewardship and Responsibility edited by [Michael Katakis](#), [Russell Chatham](#), Mercury House, 1993.

Judy Wicks, case study published by The Business Enterprise Trust, No. 9-996-039 (1996)

April 11) *Simulation/Lab Exercise*

Experiencing first hand what we have been talking about during the semester makes these lessons come alive. In order to make sustainability and sustainable business decisions real, we will be doing a simulation. *Participate will experience the process of seeing the future for themselves. In the lab teams are formed which represent companies that produce products, and individual team members take on roles within their companies. Each team makes a product and runs their company in the context of life-like conditions such as time pressures, budgetary constraints, unpredictable stakeholder interventions, changing market conditions and limited information. At the end of the decision cycle, participants sell their product in a dynamic market that allows companies*

to take market share from one another, and to record their decisions that result in P&L, Balance Sheet and Environmental reports. Some preparation will need to be done on Sunday evening, so we will schedule some time together with Susan Svoboda then. Be prepared to stay until 9:30 or 10:00 tonight.

GUEST LECTURER: Susan Svoboda

READINGS: Leadership in Living Organizations by Peter Senge, excerpt from Leading Beyond the Walls: Wisdom to Action Series by [Marshall Goldsmith](#) (Editor), [Iain Somerville](#) (Editor), [Frances Hesselbein](#), [Marshall Goldsmith](#), [Iain Somerville](#) Jossey Bass (2001)

April 18) *The Social Side of Sustainability: Jobs and Income Distribution*

Everyone is talking about the economy these days, but it is hard to really tell what it all means. Are there enough jobs? What jobs are being created, and what jobs are being lost? Do new jobs offer the wages and benefits that the old jobs did? And most important, how are working families doing?

The picture that emerges from research done by the Center on Wisconsin Strategy is decidedly mixed. On the positive side, it is clear that the Wisconsin job count is finally on the rise. But, while Wisconsin's workforce made gains in educational attainment over 1990–2003, our advance was far outstripped by national progress, especially considering those with four-year college degrees. And while poverty rates in the state remain below national levels, reflecting Wisconsin's strong history of income equality, inequalities are growing in Wisconsin. Black/white inequality, in particular, has exploded. Wisconsin is now, on several measures, the most unequal state in race terms in the nation.

GUEST LECTURER: Laura Dresser, Center for Wisconsin Strategy, UW –Madison.

READINGS: Ever Higher Society, Ever Harder to Ascend, published in The Economist, Dec 29, 2004 and available on-line at

http://www.economist.com/printedition/PrinterFriendly.cfm?Story_ID=3518560.

The New Economy of Nature, 165 - 233

April 25) *Final papers due and first presentations of Final Papers to entire class.*

May 2) *Presentation of remainder of Final Papers to entire class.*

Summary Schedule:

January 31: Project preferences due.

February 7: Project assignments distributed

February 21: 1st paper due

March 7: 2nd paper due.

April 25: Final papers due. Presentation of first papers (this is a formal presentation).

May 2: Presentation of rest of papers (this is a formal presentation).

"Teachers open the door, but you must enter by yourself."

-- Chinese Proverb