October 22, 2008

2008 Page Prize for Environmental Sustainability Curriculum Moore School of Business University of South Carolina

Dear Committee Members,

I was very excited to learn about the new Page Prize for Environmental Sustainability Curriculum. Personally, I believe that there is a critical need for our future leaders to have a strong understanding of both the challenges *and* opportunities that sustainability presents for business. Please accept the enclosed materials for as my submission for the Page Prize for Environmental Sustainability Curriculum.

Let me provide a bit of background to explain the nature of my submission. I have been researching and publishing in the area of environmental management for over 15 years, as detailed in my curriculum vita. In 2003, as an extension of my research, I worked to assemble and offer a short course (i.e., half semester) that brought together sustainability and business for both undergraduate and MBA students. Several faculty at other schools, notably Prof. Stuart Hart, now at Cornell University, kindly provided their suggestions for how I might structure a business-relevant course in sustainability development.

## Sustainability course

The underlying framework for my initial course, entitled "Managing for Sustainable Development," was the triple-bottom line, encompassing financial, environmental and social performance. Then, as now, my course focused on the very real potential for competitive advantage to be increasingly rooted in such new capabilities as pollution prevention, design for environment, social responsiveness, and stakeholder negotiation. My course emphasizes a general management viewpoint, whereby students are pushed to confront difficult challenges, scientific uncertainty, and new opportunities. While I clearly inform the students that I cannot offer definitive answers to many difficult questions embodied in sustainable development, what I would do is the class to collectively explore new directions and opportunities for more sustainable business models. The primary pedagogical vehicle was systematic discussion of business cases about leading practice and struggling companies.

While my course has continued to evolve since 2003, student reception has remained consistently strong (please see attached instructor ratings). Over the next few years, I expanded the course to a full semester course that has been highly rated. In 2006, several

undergraduate students strongly recommended that the course should become a required core course for all business students. Simultaneously, a number of other changes were underway in Ivey's undergraduate and MBA curricula, and general interest was coalescing around the need to incorporate sustainable development. Combined, these factors lead to a new module (i.e., short course) in Ivey's undergrad program on sustainable development as part of the capstone Strategy course, lead by Prof. Oana Branzei. I have continued lead the new required module for MBAs in 2007-08.

Most recently, a senior faculty member in the Faculty of Science, Prof. Bob Bailey, lead a university-wide faculty team that developed and launched a new interdisciplinary, course-based Masters on Environment and Sustainability in 2007. This program integrated courses from five different faculties, including Science, Business, Social Science, Engineering and Health Sciences, to provide students the skills need to work as a professional in sustainable development in either the private or public sectors. As one of five required core courses, my course, entitled Sustainable Business Practices, was further adapted and broadened to address the educational needs of this very diverse group of students (syllabus attached). I was very pleased to see that this particular course also was very highly rated, receiving an instructor and overall rating of 6.8 and 6.7 (out of 7), respectively, from the students. Student comments consistently highlighted the value of the course in their learning experience (attached).

## Teaching materials development

As part of this five-year journey to develop a strong pedagogical base for my course, I was able to draw on many excellent teaching cases from other leading institutions around the world. However, because more sustainable business practices continues to be an emerging area, I saw a significant need for new materials in the areas of green power, LEED building certification, more sustainable technologies, pollution prevention, and the Equator Principles. To this end, I have co-authored five cases:

- Selectpower Green Energy in Ontario.
- Carrefour China, Building a Greener Store.
- Hydro: From Utsira to Future Energy Solutions.
- RBC Financial Group The Equator Principles in Qatargas II LNG Project.
- Indian Oil Corporation Limited The Mathura Refinery.

These cases explore the real-world application of sustainability in a wide range of geographical locations in both developing and developed economies, and encompass a variety of managerial roles and decisions. As is customary for all faculty members from my institution, these cases and their detailed teaching notes are readily available from Ivey's case publication department.

## Page Prize submissions

In summary, I have enclosed three attachments and three sample cases in support of my application for the Page Prize for Environmental Sustainability Curriculum.

- 1. Course syllabus for Sustainable Business Practices.
- 2. Unedited, anonymous student comments from the *Sustainable Business Practices* (2007), which are one component of University-mandated course evaluations.

- 3. Course evaluation summary for past five years for my sustainable development course offerings.
- 4. Selectpower Green Energy in Ontario.
- 5. Carrefour China, Building a Greener Store.
- 6. Hydro: From Utsira to Future Energy Solutions.

If you have any questions or require additional information, please contact me. As I am currently on sabbatical in Belgium, it is simplest to reach me by email at rklassen@ ivey.uwo.ca. Alternatively, please contact me by phone at +32-475-926-615 (mobile).

Thank you in advance for your kind consideration of my submission.

Sincerely,

Robert Klassen, Ph.D., P.Eng.Professor,

Operations Management

J.J. Wettlaufer Faculty Fellow

# ENVSUS 603F SUSTAINABLE BUSINESS PRACTICES

COURSE SYLLABUS FALL 2007

### Professor Robert D. Klassen

Historically, environmental and social issues have been treated as peripheral concerns for business. Social responsibility and environmental management have been framed as added costs driven primarily by guilt or regulation. However, the last decade has demonstrated that this separation between social and environmental contribution and financial performance is breaking down. Managers now must wrestle with a variety of pressures and make difficult choices for how to best integrate these dimensions in business models and management systems.

In a nutshell, sustainable development focuses on the inter-relationships between financial, social and environmental performance. Many companies are now actively seeking to pull these together under a competitive strategy that captures the "triple bottom line." There is the very real potential for competitive advantage to be increasingly rooted in such new capabilities as pollution prevention, design for environment, social responsiveness, and stakeholder negotiation. These capabilities draw on a number of functional areas, including marketing, human resources, operations, and finance, to list several. Thus, this course emphasizes a general management viewpoint, where you as managers must confront difficult challenges, scientific uncertainty, and new opportunities.

#### **OBJECTIVES**

By the end of this quarter course you should have gained tools, skills and intuition that will enable you to do the following:

- 1. Characterize the drivers of current social and environmental issues.
- 2. Integrate financial, social and environmental performance within a general business model.
- 3. Review and critique the strategies adopted by firms on sustainable development based on decision-oriented frameworks.
- 4. Formulate effective approaches to make progress toward improving the triple bottom line.

## **COURSE STRUCTURE**

Your other course work provides a solid foundation from which to understand the general environmental and social context in which business operates. This course builds on these concepts to consider the combination of economic, social and environmental issues—from a management perspective. As these are difficult challenges, you will not be presented with either

easy questions or simple answers. Exploring these issues tends to foster active and heated scientific, social and economic debate.

This course has a different structure designed to foster greater in-depth discussion and equip you with the concepts and tools to develop an interesting, insightful project that explores sustainable development into practice. The course will examine one firm in detail during each weekly session, supplemented with other readings, examples or alternative business models. The final class sessions during the last two weeks of the semester are for group presentations and course wrap-up.

This syllabus provides a brief overview of the course modules and a summary of each session, along with the case, readings, and assignment questions to be prepared in advance. I welcome your feedback on potential improvements and aspects that you found particularly beneficial for your learning.

## **METHOD AND MATERIALS**

The primary teaching vehicle is interactive case analysis and discussion. This is supplemented with reading assignments, short simulation exercises, and videos to expand your opportunities to learn, discuss and debate. Guest speakers also have been invited for two classes and a field trip to a local firm is planned.

Class participation will be a key factor in the success of the course – both for you individual, and the class as a whole. Given that this course includes a mix of students from diverse backgrounds, mutual learning is an essential objective. Class attendance, extensive individual preparation, and a willingness to openly share knowledge and listen to different perspectives are crucial.

The casepack is required, which generally consists of one case and several readings for each three-hour class session. Because of the wide range of topics that we will touch on, I have not assigned a textbook. If you are interested in looking at a particular topic in greater depth, the individual written report provides an excellent vehicle to further explore a particular aspect of sustainable development.

I strongly recommend that you use your three-person team (discussed further in the next section) to also prepare for our weekly case discussions. Cases are often long and filled with many strategic issues and technical details. For this reason, individual preparation (suggested time of about two hours), followed by a brief group meeting (suggested time of 20-30 min.) *prior* to our class time is essential. The assignment questions should guide your preparation and discussion, but please don't feel constrained to follow this point-by-point. Also, as some cases involve quantitative analysis, it is important to explore both the qualitative and quantitative aspects during your group's meeting time. At a minimum, think about the key strategic issues, and explore the pros and cons various options (including ones that you develop independently of the case).

## WRITTEN REPORTS AND PRESENTATION

Many of the cases present challenges that organizations are facing as they actively are working to redefine customer expectations in their industry, are exploring alternative business models, or are seeking to fundamentally change the competitive landscape. We cover a broad range of issues related to sustainable development throughout our class sessions, but unfortunately, cannot fully explore the business implications of all of these. Thus, to encourage you to learn more about a few dimensions of sustainable development, there are two major written components, one individual-based and the other group-based.

For the individual report, due halfway through the course, the focus is on learning more about one particular topic of your choice related to sustainable development. The key *business implications* must be assessed, and *best practices for a few leading organizations* must be identified, compared, and evaluated. Examples of issues could be marketing green products, pesticide use, product recycling, and genetically modified organisms, to name several. Naturally, the library and Web are two major sources of information and data (*please fully cite all sources*), as I expect you to move well beyond the cases and readings that are part of the casepack. The report is to be a maximum of 1,500 words (please use double-spaced pages, 12-point font), plus any exhibits. It is important to be specific about both the implications of the issues for managers and best practices, rather than simply offer vague generalities.

To summarize, the issues that should be addressed in your individual report include:

- why is this sustainable development issue important for business managers?
- what are the implications for the triple bottom line?
- what are some examples of best practice to deal with this issue?

The second major written submission is a small-group project report. Based on past experience this course, I have found that a group project provides the greatest opportunity for learning, as well as the freedom to custom-design the course for your own needs as you plan for your career after graduation from Western. I ask that each group assume the role of investigative journalists, providing a briefing about a specific firm's actions or opportunities regarding economic, environmental and social performance. The content and style of managerial publications such as *Business Week, Fortune* and the *Globe & Mail* should serve as a guide for the written report. Your team should choose a company of moderate size with at least \$25 million in revenue to ensure a rich, interesting set of issues. As with the individual report, the library and Web are good sources of information and data (please fully cite all sources). Stronger projects also will include short interviews with one or more managers, industry analysts, or other experts.

The report is to be a maximum of 2,500 words (again, please use double-spaced pages, 12-point font), plus any exhibits. Many groups will find that a report of this length is very easy to assemble—your challenge is to identify the key challenges for sustainable development in this particular firm, and then write an insightful, concise critique and action plan. For larger firms, focusing on a single line of business should help you to focus your report.

The issues that need to be investigated in group's presentation and report include:

- which aspects of sustainable development should most concern the managers of this firm?
- how are they dealing with these (and what has been right or wrong) relative to competitors?

- what are the strengths and weaknesses of the chosen managerial philosophy, approach or systems?
- how might the firm improve its implementation of sustainable development over the short-and long-term?

Your observations and critique will then form the basis for a 20-minute summary presentation to the rest of the class during the last two weeks of the semester. The best presentations will be those that demonstrate how integration among environmental, social, and economic goals can be achieved (or failed attempts at same). Presentations that capture an interesting, novel, humorous, counterintuitive, or controversial angle on the notion of corporate sustainability will be preferred. While the presentations will be evaluated by me, they will also be judged by your peers.

I would like you, if possible, to work on the project in a *group of three people*. Please choose your group members carefully and actively manage your group, as the project grade will be distributed equally among the team members. For all projects, I expect to see sufficient depth to demonstrate your understanding of key course concepts. I have no objection if you wish to investigate a firm with which you are already familiar; however, *your project must not be repetition of other course work*.

A one-paragraph proposal for your group project concept is due by Thursday, October 4 (email submission is fine). Please include the names of your group members, the name of the company, a short description of its business, and your rationale for selecting this firm. I will approve the proposed work in principle before it starts (I will turn these around very quickly).

Depending on class size, presentations will occur in class on November 22 or 29. I will email your assigned day after I receive all of the submissions. A hardcopy of your PowerPoint slides must be submitted to me by <u>all groups</u> *before class on Thursday, November 22*. The final report is due on Wednesday, December 5.

To summarize, your individual report and group project need to follow this timetable:

- by October 4: Submission of a one-paragraph proposal for group project.
- October 25: Submission of your individual report.
- November 22: Submission of summary PowerPoint slides by all groups before class.
- November 22 and 29: Scheduled in-class presentations.
- <u>December 5</u>: The final project report is due by noon.

#### **EVALUATION**

Your final grade will be a composite of my assessment of your in-class contributions to our case discussion, written work and group presentation. The written work has been discussed earlier. In-class contribution focuses on preparation for and verbal contribution to our class discussions. The goal is to develop your ability to consider managerial decisions and situations related to sustainable development, to find, analyze and solve problems, to communicate ideas, and to appreciate a general management point of view.

I consider meaningful contributions to class discussion to include any comments, questions, or analyses which advance the general class understanding of the case, concept or issue, the major problems, key factors to consider, and appropriate decisions or plans of action that could be undertaken. I reward contributions that start us off productively, shape our discussion usefully, help us change direction when needed, provoke useful debate, and summarize the comments of others. I try to ignore repetition of other students' comments and of the case. I am not particularly impressed by "chip shots." Both quantity, and more importantly, quality are important. Keep in mind, however, that I cannot judge quality without some quantity as well.

Each day after class I review each student's contribution to the class and assign it from 0 to 5 points noting absences and illnesses. Students who say nothing get 0; those who make particularly valuable, insightful, in-depth contributions get 5. At the end of the course, I sum the daily points and rank the class by these totals. I use these scores as the first cut to assign grades based on my judgment of how good the top-scoring student is, how bad the lowest-scoring student is, where I should make grade breaks between the extremes, and individual strengths, weaknesses, and trends.

In written work and group presentations, I look for such features as consistency, understanding, completeness, lack of loose ends, and evidence of hard work and thoughtfulness. I assign grades for this work in a similar way to that described above for in-class contribution.

The overall grade for the course will be assigned based on the following weightings:

Weight	Due date
25%	Daily, in-class
25%	October 25
25%	November 22
25%	December 5
	25% 25% 25%

<sup>\*</sup>Project proposal is due October 4.

### **QUESTIONS OR ISSUES**

My office is in the Ivey Business School, 3N28, my phone number is 519-661-3336, and my email is rklassen@ivey.uwo.ca. My administrative assistant is Penni Pring, located in Ivey 2N19. If you have any questions or concerns, please stop by my office or arrange an appointment via email.

Robert D. Klassen September 2007

# SUSTAINABLE BUSINESS PRACTICES

# Overview of the Course

	Overview & Nature of the Challenges		
	Case/reading	topic	
1.	Case: Selectpower – Green Energy in Ontario Reading: Note on Case Analysis; and Sustainable Development Timeline.	Course overview and introduction to sustainable development; new business models.	
2.	Case: The Monsanto Company (A) Readings: Next Bottom Line (chapters 1 and 3); and Profit and the Public Good	Moving toward implementation; and managing external stakeholders.	

	Environmental Bottom Line		
	Case/reading	topic	
3.	Case: Hydro: From Utsira to Future Energy Solutions Readings: Powering the Future; Fundamental Concepts; and Crude Awakening.	Hydrogen economy; innovation as a path sustainable development.	
4.	Fieldtrip: 3M Reading: Why (and How) to Take a Plant Tour; and The Great Leap.	Corporate innovation and sustainability.	
5.	Case: Interface's Evergreen Services Agreement Readings: Sustainable Advantage; Designing the Future; and The Truth about Recycling,	Product and market development, building closed-loop product systems (goods and services).	

Social Bottom Line		
Case/reading	topic	
6. Case: Genzyme's Gaucher Initiative Readings: Uncertain Miracle; As Exxon Pursues African Oil; and AIDS is Your Business.	The social bottom-line: business models; and corporate philanthropy.	

7. *Guest:* Gary Walsh (Opportunity International) *Case:* A Commercial Bank Does Microfinance *Readings:* Invisible Hand; Taking Tiny Loans to the Next Level; and The Poverty Business

Building social value; micro-finance; business and non-profit partnerships in developing countries.

Evaluating the Triple-Bottom Line		
Case/reading	topic	
8. <i>Case:</i> Nestlé's Nescafé Partners' Blend <i>Readings:</i> Selling Green; Diamonds Aren't Forever; and Corruption Stains Timber Trade	Triple bottom line in supply chain management.	
9. Guest: Kevin Ranney (Jantzi Research Inc.) Case: RBC Financial Group Readings: Sustainable Development and Your Pension Fund	Investing and lending against the triple bottom line; sustainable development indices.	
10. Case: Noranda Inc.: Mining, Smelting and Sustainability?  Readings: Ethics of Business; Criminal Probe Sought in Salmon Deaths; and BP: Living Dangerously.	Corporate disclosure; monitoring and assessing triple bottom line performance.	
11,12. Group presentations.	Evaluating and improving current management practice.	

## SUSTAINABLE BUSINESS PRACTICES

# Detailed Assignments

# Session 1 – September 13

Case: Selectpower – Green Energy in Ontario

Read: Note on Case Analysis; and

IISD, "Sustainable Development Timeline".

## Assignment:

- 1. How is SelectPower trying to balance the triple bottom line with each business venture?
- 2. What is driving the development of the four major business units, e.g., regulatory changes, customer demand or technology development?
- 3. If Selectpower focuses on the geothermal business, how should it be positioned, developed and marketed?
- 4. If Selectpower focuses on wind-derived energy, how should it be developed?
- 5. If you were in the position of Wiltshire, what would you do?

Note: We will begin with a short course introduction. We will also use this short case to illustrate the case learning process that will leveraged throughout the course.

## Session 2 – September 20

Case: Monsanto Company: Quest for Sustainability (A)

Read: The Next Bottom Line (chapters 1 and 3);

Wall Street Journal, "Biotech-Crop Battle Heats Up as Strains Mix with Others"; and Economist, "Profit and the Public Good".

## Assignment:

- 1. What do you think of Monsanto's motto of *Food \* Health \* Hope?*
- 2. Why the European backlash? How does the European perspective fit with those of developing countries?
- 3. How might this current situation have been avoided?
- 4. Is Monsanto a good long-term investment?

Note: Listing of Your Group Members is due today (by email).

## Session 3 – September 27

Read: National Geographic, "Powering the Future";

Callan and Thomas, "Fundamental Concepts in Environmental Economics"; and WSJ, "Crude Awakening: As Alternative Energy Heats Up, Environmental Concerns Grow".

Case: Hydro: From Utsira to Future Energy Solutions

## Assignment:

- 1. Has the Utsira project been successful?
- 2. How might the potential commercialization of this project contribute to sustainable development at Hydro or for its customers?

- 3. What is Hydro's role in selling a system of this nature? How can the company capture and sustain value?
- 4. How attractive are the two potential markets, namely remote communities and grid balancing, for commercializing the system? What criteria are important for each market?
- 5. How should Fjermestad Hagen and Nakken proceed? What action should they take?

## Session 4 – October 4

Read: "Why (and How) to Take a Plant Tour"; and

MIT SMR, "The Great Leap: Driving Innovation from the Base of the Pyramid".

Plant tour: 3M Assignment:

- 1. Based on the tour and management discussion, how has 3M tried to integrate sustainability into its business?
- 2. What role does innovation play in sustainability?

*NOTE*: A bus will leave from outside the Business School to travel to 3M at 2 pm (sharp!).

## GROUP PROJECT PROPOSALS ARE DUE ON OCTOBER 4 (TODAY!).

#### Session 5 – October 11

Read: University of Washington, "Sustainable Advantage";

Newsweek, "Designing the Future"; and

Economist, "The Truth about Recycling".

Case: Interface's Evergreen Services Agreement

Assignment:

- 1. What is rationale for "licensing products of service"? What are the organizational requirements to support such an offer?
- 2. What is Anderson's vision for the Evergreen Services Agreement? What is your assessment of the business model? Why are potential customers interested by this proposal?
- 3. Why is Interface finding it difficult to sell Evergreen Services Agreements? What is your assessment of the negotiations with University of Texas at Houston? Why did they break down? Under what circumstances might they succeed?
- 4. What do you think Hendrix should do?

## Session 6 – October 18

Read: WSJ, "Uncertain Miracle: A Biotech Drug Extends a Life, But at What Price?"; WSJ, "As Exxon Pursues African Oil, Charity Becomes Political Issue"; and

HBR, "AIDS is Your Business".

Case: Genzyme's Gaucher Initiative

## Assignment:

1. How was Genzyme able to emerge from its marginal position in the high-risk biotech business to become a strong global player in that industry? What are its core competencies? Its core vulnerabilities?

- 2. What do you think of Henri Termeer's "universal provision" and "universal pricing" policies? Are they socially responsible? Commercially viable? Competitively sustainable?
- 3. How can the company reconcile the tension created between the Gaucher Initiative's humanitarian commitments and Genzyme's commercial imperatives?
- 4. Specifically, what should Tomye Tierney do about the situation in Egypt? How should she respond to Genzyme's Middle East sales organization? To Project Hope representatives? To Egyptian government officials? To her bosses, Sandy Smith and Henri Termeer?

## Session 7 – October 25

Guest: Gary Walsh, Chief Executive Officer, Opportunity International Canada (http://opportunitycanada.ca).

Read: WSJ, "Invisible Hand: Entrepreneur Gets Big Banks to Back Very Small Loans"; Business Week, "Taking Tiny Loans to the Next Level"; and Business Week, "The Poverty Business; Inside U.S. Companies' Audacious Drive to Extract More Profits from the Nation's Working Poor"

Case: A Commercial Bank Does Microfinance: Sogesol in Haiti Assignment:

- 1. Both strategically and tactically, what are Sogesol's strengths and weaknesses?
- 2. What role, if any, could this organization play in the development of the Haitian economy?
- 3. What options does Sogesol have to deal with the absence of a credit bureau and uncertain regulatory setting?
- 4. How do you recommend that Sogesol achieve profitability?

REMINDER: INDIVIDUAL REPORTS ARE DUE TODAY.

#### Session 8 – November 1

Read: CMA Magazine, "Selling Green"

Fortune, "Diamonds Aren't Forever"; and

Washington Post, "Corruption Stains Timber Trade; Forests Destroyed in China's Race to Feed Global Wood-Processing Industry"

Case: Nestle's Nescafe Partners' Blend: The Fairtrade Decision (A)

# Assignment:

- 1. Is Fairtrade an attractive segment for Nescafé and Nestlé as a whole? Why or why not?
- 2. If you were Nestlé's Chief Executive Officer (CEO), would you launch the product line? If so, would you launch it with or without the Fairtrade mark?

#### Session 9 – November 8

Guest: Kevin Ranney, Managing Partner, Jantzi Research Inc. (http://www.jantziresearch.com).

Read: Benefits Canada, "Sustainable Development and Your Pension Fund"; and Jantzi Research, "Canadian Social Investment Database: Dofasco"

(http://www.jantziresearch.com/downloads/MJRA-Profile-Dofasco-2004.pdf); and Jantzi Research, "Canadian Social Investment Database: CIBC" (http://www.jantziresearch.com/downloads/MJRA-Profile-CIBC-2004.pdf).

Case: RBC Financial Group - The Equator Principles in Qatargas II LNG Project Assignment:

- 1. How would you characterize the Equator Principles (EP)? When should they be applied?
- 2. What general strategic approach do you recommend for James Evans?
- 3. What do you think about RBC implementation of EP?
- 4. How should RBC deal with external stakeholders for the EP in general, and for the Qatargas II LNG project in particular?
- 5. Evaluate the alternatives that Evans has. What action would you take and why?

## Session 10 – November 15

Read: Economist, "The Ethics of Business"; and

Business Week, "Little Green Lies"; and

Bloomberg Markets, "BP: Living Dangerously

Case: Noranda Inc.: Mining, Smelting and Sustainability?

# Assignment:

- 1. How does the concept of sustainability apply to a mining and metals company?
- 2. How does Noranda operationalize sustainability?
- 3. What do you think of Noranda's approach to reporting on its efforts to improve sustainability?
- 4. Is Kerr being too optimistic about reaping financial rewards from previous investments over the next few years?

## Sessions 11 & 12 – November 22 and November 29

Group presentations: 20 minutes per group. Schedule to be finalized later.

**POWERPOINT SLIDES** (hardcopy) ARE DUE from ALL groups at the beginning of class on November 22.

PROJECT REPORTS (hardcopy) ARE DUE by noon, Wednesday, December 5.