This course is the first course in a 2-semester course sequence offered to students enrolled in the Fisher Energy and Sustainability Cluster. This year-long sequence of courses provides students with in-depth competence in sustainable business practices.

Clusters at Fisher are designed as an MBA-like experience for academically-strong undergraduates who are highly motivated to jump start their career. The clusters employ an experiential learning model. This involves a high degree of student engagement, case studies, and collaborative problem solving in the form of team projects that help students develop skills in topical research, project management, business presentations, and preparation of business reports. A co-curricular component of the Cluster model provides students with skills in networking, searching for internships and full-time employment, professional engagement, and business etiquette for formal social occasions.

The Cluster is delivered with the support and cooperation of five Industry partners: the Alcoa Foundation, Dow Chemical Company, the General Motors Foundation, Greif and Owens Corning. Students are expected to enroll in both semesters of the Cluster. **Students not planning to enroll in the second semester should not enroll in the first semester.**

**Class Schedule:**

Tue & Thu: 7:30 PM – 8:48 PM – Rm: 215 SB

**Instructor:** Professor Neil L. Drobny, Ph.D.
**Phone:** (614) 268-6100
**Email:** drobny.3@osu.edu
There are seven sections and two attachments to this syllabus:

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I. Course Overview

Scope & Structure

How a company interacts with the environment and how it performs as a socially responsible corporate citizen are becoming strategic variables for all organizations – for profit corporations and non-profit organizations alike.

Sustainability captures a broad and diverse set of issues with which organizations must deal to succeed strategically and perform competitively against rising expectations for environmental stewardship and social responsibility. Often the informal metaphor “green” is used synonymously with sustainability, but as will be demonstrated in this course, sustainability is the more comprehensive term.

**BA 3640.01 - Sustainability in Business: Principles and Practices** will trace the historical evolution of present day expectations on corporations and other organizations for taking on environmental and social responsibilities that may seem unrelated to their core mission, but which are not. Present-day driving forces such as climate change, food vs. fuel, resource depletion, and global poverty mitigation will be studied in detail. Building on that backdrop, the course will acquaint students with the initiatives of several organizations that have integrated sustainability-focused business practices into their operations. Additionally, students will study specific topics that are important building blocks for sustainability initiatives. These topics will include building design and construction, energy conservation and management, substitution of renewable for non-renewable resources, water management, carbon reduction, waste reduction and recycling, stakeholder relationships, and sustainability measurement and reporting. Finally, students will be introduced to advanced concepts including natural capitalism, industrial ecology, environmental footprints and handprints, enterprise resilience, materiality assessment, the circular economy, codes of conduct, life cycle analysis, and sustainable business certification. Considerable use will be made of case studies in acquainting students with the referenced concepts and principles, which will also be reinforced by several optional field trips to facilities that employ sustainable business practices.

This course is a pre-requisite for **BA 3642.01 - Sustainability in Business: Applications and Project Experience** in Spring Semester 2017.
**Industry Partners**

Five companies partner with Fisher in delivery of the Cluster courses: Alcoa/Arconic, Dow, General Motors, Greif and Owens Corning. In the Autumn semester these companies send speakers many of whom travel from out of state (from as far away as Houston) to lecture on particular topics. In the Spring semester the partner companies provide authentic projects for students to work on in collaborative teams.

In the Autumn semester, each student will be assigned one speaker to either provide an introduction at the beginning of the class where the person is speaking or to prepare and mail a hand written follow up thankyou note on behalf of the class.

**II. Learning Objectives**

BA 3640 and BA 3642 work together to provide students with skills and knowledge to:

- Comprehend the complexity of matters which interact to create sustainability-related strategic and operating challenges and opportunities for business organizations.
- Frame the diagnosis and solution pathways for business issues with apparent or potential sustainability issues in major business functions.
- Identify and select tools appropriate to analysis of sustainability issues and to generate solution pathways typically faced by private and public sector businesses.
- Develop and argue the business case for solving problems or pursuing opportunities framed from actual circumstances faced by diverse organizations.
- Identify and access information sources pertinent to a rapidly evolving knowledge base on sustainable business practices.
- Communicate to prospective employers how sustainability knowledge can add value to an organization
- Discuss knowledgeably emerging business models and concepts including the circular economy, B-corporations, zero waste, collaborative consumption, product stewardship, and industrial ecology.

These objectives are reviewed annually to assure relevance to changing requirements and evolving knowledge.
### III. Topic Schedule

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<td>In-class midterm (50 min)</td>
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| 10/25  | **INDUSTRY PARTNER PRESENTATION**  
Jacqueline O’’Brien, Arconic (formerly Alcoa)  
*GeoPolitical Dimensions of Energy & Sustainability* |
| 10/27  | **INDUSTRY PARTNER PRESENTATION**  
Scott Griffin, Greif  
*Case Studies in Corporate Social Responsibility* |
| 11/1   | **INDUSTRY PARTNER PRESENTATION**  
Jeff Wooster, Dow  
*Demystifying Sustainability for Plastics* |
| 11/3   | **INDUSTRY PARTNER PRESENTATION**  
Doug Ponstler, Owens Corning  
*Safety in Sustainability and Business Culture* |
| 11/8   | **LECTURE & DISCUSSION**  
*Organizing Frameworks for Sustainability: Benchmarks & Principles*  
*4 Mini Presentations* |
| 11/10  | **GUEST LECTURE**  
Jack Hedge, Design Group (Ret.)  
*The Built Environment: High Performance Buildings* |
| 11/17  | **GUEST LECTURE**  
Jim South, The Nature Conservancy  
*The Economics of Ecosystems* |
| 11/22  | **LECTURE & DISCUSSION**  
*Corporate Sustainability Strategy*  
*Case Study #2 – GOJO Industries*  
*2 Mini Presentations* |
| 11/24  | No CLASS  
*Thanksgiving* |
| 11/29  | **LECTURE & DISCUSSION**  
*Stakeholder Engagement*  
*Case Study #3 – Pyramid Air*  
*2 Mini Presentations* |
| 12/1   | **LECTURE & DISCUSSION**  
*Product Issues in Sustainability*  
*Case Study #4 – Herman Miller*  
*2 Mini Presentations* |
| 12/6   | **TEAM PROJECT REPORTS**  
*Conclusions only – 10 min. per team*  
*2nd Semester Plans/Projects* |
IV. Class Meeting Detail

**Tue., Aug 23 – INTRODUCTION TO THE CLUSTER**
Follow up to Orientation

*Read before class:*

- None.

*Agenda for Class:*

The instructor will answer any questions remaining from the Orientation Session and will layout the overall structure of the Energy & Sustainability Cluster including:

- Expectations: the instructors’, yours, Industry Partner companies and speakers.
- Classroom protocol.
- Snapshot of Spring Semester.
- Optional field trips

Additionally students will be invited to share their reasons for enrolling in the Cluster.

**Thu., Aug 25 – SYLLABUS REVIEW AND EXPECTATIONS**
The Business Case and Agenda for Sustainability

*Read before class:*

- Be familiar with this syllabus and the Carmen website for the course.
- “Business at its Best: Driving Sustainable Value Creation” (Full Report). Download [here](#).

*Agenda for class:*

- The instructor will review the syllabus highlighting key aspects.
- Additionally, the instructor will lay out the issues that are diving business interest in sustainability.

**Tue., Aug 30. 3 – LECTURE & DISCUSSION**
Roots of Sustainability in Business and Selection of Mini Presentation Topics

*Read before class:*

- Chapters 1 & 2 - Theis & Tomkin text
  1. “Humanity and the Environment”
  2. “Evolution of Environmental Policy in the U.S.”
- “Toms River: Pollution and Its Cancerous Wake.” Click [here](#).
- “How to Increase Your Bottom Line by Going Green”. Click [here](#).
Agenda for Class:

- Conservation Movement
- “Success” of the Industrial Revolution
  - Population Growth
  - Consumption as the engine of economic growth
  - Efficiency as a driver of consumption
  - “Hazardous” nature of waste recognized ~ late 60’s
- Public Health Impacts (e.g. Toms River example)
  - Gastrointestinal illness – water pollution due to human waste
  - Pulmonary illnesses – industrial air pollution
  - Cancer – toxic and hazardous waste
- Emergence of EHS as a business function
  - 1970 - U.S. EPA created and states follow suit
  - Federal and State regulatory binge
  - Non-compliance begins to “cost”
  - 3M Launches 3P’s (Pollution Prevention Pays)

➢ Selection of mini-presentation topics (see page 18 for details).

Thu., Sept 1 - LECTURE & DISCUSSION
  Materiality Assessment
  Team Projects & Project Management

Read before class:

- “Owens Corning Materiality Assessment”
- “Getting Materiality Right”.
- “Learn More about the SDGs”
- “Ohio State Sustainability Goals”
- “Why Teams Matter”. Click here.
- “Project Management Guidebook” Click here.

Agenda for Class:

- Project Scope & Objectives
- Materiality Assessment
  - What is it?
  - Purpose Served
- UN Sustainable Development Goals
- OSU Sustainability Goals
- Select Project Teams
  - Students will self-select into project teams of 3 or 4 people each.
Tue., Sept. 6 - LECTURE & DISCUSSION
Preparation of Business Reports & Case Study No. 1: “Stick to the Strategy...?”

Read before class:

- Review Attachment 1 to the Syllabus
- Read Case Study #1: “Stick to the Strategy or Make the Sale” [PDF # 1 on Carmen]

Agenda for class:

- The instructor will discuss structure and deliver of business reports and presentations.
- Discussion of “Stick to the Strategy,...?” case. Students should come to class prepared to discuss issues related to the case which are posted on Carmen in the Module titled “Case Studies Discussion Questions”. Prior to the case discussion, a 3-question, 5-minute quiz will be given to test students’ familiarity with the case.

Thu., Sept. 8 – LECTURE & DISCUSSION
Climate Change & Carbon: Business Risks & Opportunities

Read before class:

- “Cost of Inaction”. Click here. (Read only the Executive Summary and Conclusions)
- “Reporting Your Company’s Carbon Footprint Can Save $1.5 million a year”. Click here.
- “COP 21 Commentary – Parts I – IV” Click here.
- “California Cap-and-Trade: A Booming Success in Disguise”. Click here.

Agenda for class:

- Business impacts atmospheric carbon
  - Mitigation vs. adaptation
  - Voluntary vs. mandated controls
  - Internal pricing of carbon
- OSU and Columbus GHG reduction goals
- Impact Investors (including divestment proponents)
- Role of Business at COP 21 (COP = Conference of Parties)
- Societal issues
  - Social cost of carbon
  - Poverty connection

Tue., Sept. 13 – INDUSTRY PARTNER PRESENTATION
The Auto Industry’s Journey to Sustainability

Read before class:

Agenda for class:

- Guest Speaker: David Tulauskas, Director of Sustainability at General Motors, will discuss the journey of the auto industry to sustainability, with particular reference to General Motors.

Thu., Sep 15 - INDUSTRY PARTNER PRESENTATION
Corporate Social Responsibility

Read before class:

- “Vision 2050 – The New Agenda for Business”
- “Sustainability 50 Summit – May 2013 Briefing Book.” [PDF #2 on Carmen]
- Research the book, Dead Aid, and understand the key concepts.

Agenda for class:

- Guest Speaker: Mr. Scott Griffin, Chief Sustainability Officer of Greif in Delaware, Ohio will discuss the global view of sustainability in business as articulated by the World Business Council on Sustainable Development, with emphasis on the social agenda.

Tue., Sept. 20 - INDUSTRY PARTNER PRESENTATION
Redefining the Role of Business in Society

Read before class:

- Dow’s sustainability report
- Dow’s 2025 sustainability goals.

Agenda for Class

- Guest Speaker: Mark Weick, Lead Director, Enterprise Sustainability and Risk Management, will discuss Dow’s approach to redefining the role of business in society with emphasis on how Dow employees make it happen.

Thu., Sept 22 - INDUSTRY PARTNER PRESENTATION
Sustainability Through Life Cycle Assessment

Read before class:

- “How big data is about to ignite smart grids worldwide.”

Agenda for class:

- Guest Speaker: Dhruv Raina, an Owens Corning Leader in Corporate Sustainability will discuss the need for data to support sound decision making in pursuit of sustainability goals.
**Tue., Sept. 27, – LECTURE & DISCUSSION**

**Supply Chain Issues plus 5 Mini-presentations**

*Read before class:*

- “Sustainability Through the Value Chain”: Click [here](#).
- “From Risk to Resilience – Learning to Deal with Disruption”. Click [here](#).
- “Tracing Conflict Minerals Proves Elusive and Expensive”. Click [here](#).

*Agenda for class:*

- Where Impacts Happen
- Sourcing
  - Conflict Minerals
  - Effects on value chain impacts
- Requirements: Sustainability and Resilience
- Supplier Scorecards
- Supplier Support and Training
- Supplier Accountability
- WalMart Example

➢ At the end of class time will be reserved for 5 mini presentations.

**Thu., Sept 29 – INDUSTRY PARTNER PRESENTATION**

**When 1 + 1 is More Than 2**

*Read before Class:*


*Agenda for class:*

- Dan Roup, Director of Growth & Market Strategy of Arconic (formerly Alcoa), will discuss business issues related to the separation including costs, benefits and impacts on sustainability.

**Tue., Oct 4 – GUEST LECTURE**

**Smart Cities Smart for Business**

*Read before class:*

- “Columbus Smart City Application”. Click [here](#).
- Review the website for [CleanFuelsOhio](http://CleanFuelsOhio)
- “Rolling Along: Bicycles, Mobility and the Future of Cities”. Click [here](#).
Agenda for class:

- **Guest Lecture:** Mr. Sam Spofforth, Executive Director of Clean Fuels Ohio, will discuss the recent award by the U.S. Department of Transportation of a $40 million grant won by the City of Columbus in national competition with nearly 80 other major cities to develop and demonstrate progressive transportation solutions. The Columbus application for this grant was supported financially approximately $90 million in matching funds from the business community. Clean Fuels Ohio played a major role in preparing the Columbus grant application.

Thu., Oct 6 – INDUSTRY PARTNER PRESENTATION

**Read before class:**

TBD

Agenda for class

 Tue., Oct. 11 – INDUSTRY PARTNER PRESENTATION

Energy & Sustainability at Alcoa/Arconic

**Read before class:**

- Alcoa 2015 Sustainability Report.

Agenda for class:

- Jamie Mackay, Director, Global Environmental Compliance & Sustainability for Arconic (formerly Alcoa) will discuss energy and sustainability and what Alcoa/Arconic is doing in that area.

Thu., Oct. 13 – MID SEMESTER BREAK

No Class

Tue., Oct 18 – MIDTERM EXAM

**Read before class:**

- None

Agenda for class:

- In-class midterm – closed book (50 min)

  - At the end of class time will be reserved for 5 mini presentations.
Thu., Oct 20 – SUSTAINABLE MATERIALS MANAGEMENT
The Circular Economy, By-Product Synergy and Industrial Ecology

Read before class:

• Watch the 6-minute video: "Turning Waste to Profit".
• “Sustainable Materials Management”. Click here.
• Watch the 18-minute video: “Circularity – Preparing for the New Economy”.
• “By-Product Synergy & Industrial Ecology”.

Agenda for class:

• Guest Speaker: Mike Long, President, Resource100 and consultant to businesses and non-profit organizations, such as the Columbus Zoo & Aquarium, will discuss the idea of reframing waste as a resource. Previously Mike was the founding Executive Director of The Solid Waste Authority of Central Ohio, a position he held for 18 years.

Tue., Oct 25 – INDUSTRY PARTNER PRESENTATION
GeoPolitical Dimensions of Energy & Sustainability

Read before class:

• “Saudi Vision 2030”
• “Made in China 2025”:
• “Assessing the impact of Brexit on sustainability”

Agenda for class:

• Jacqueline O’Brien, Vice-President, Strategy, Global Affairs for Arconic will discuss how geopolitical changes impact corporate sustainability agendas. Her presentation will include reference to Saudi Arabia’s migration away from oil, Brexit, changes in the energy mix in China, and Brazil’s issues with governance.

Thu., Oct 27 – INDUSTRY PARTNER PRESENTATION
Case Studies in Corporate Social Responsibility

Read before class:

• Executive Summary only: “Unfinished Business – The Case for Extended Producer Responsibility for Post-Consumer Packaging. Download here
• “Girls, Women and Water”. [PDF #3 on Carmen].
• “Sustainable Development Goal #5: Achieve Gender Equality.” Click here.

Agenda for class:

• Guest Speaker: Mr. Scott Griffin, Chief Sustainability Officer of Greif in Delaware, OH will discuss a very successful social enterprise that improves access to water in the developing world.
**Tue., Nov. 1 – INDUSTRY PARTNER PRESENTATION**  
**Demystifying Sustainability for Plastics**

*Read before class:*

- Watch the videos:  
  - “Plastic: Too Valuable to Throw Away.” Click [here](#).
  - “It’s the Total Package.” Click [here](#).
  - “Dow Energy Bag”. Click [here](#).
- Visit Recycle Rally and take the Recycle Challenge. Click [here](#).
- “The Energy Cost to Feed One Person.” [*PDF #4 on Carmen]*
- “Sustainability in a Package.” [*PDF #5 on Carmen]*

*Agenda for class:*

- Guest Speaker: Jeff Wooster, Sustainability Leader, Plastics North America, Dow, will discuss packaging issues generally and plastics specifically from the viewpoint of sustainability.

**Thu., Nov. 3 – INDUSTRY PARTNER PRESENTATION**  
**Safety in Sustainability and Business Culture**

*Read before class:*

- “Owens Corning Green Cross Award Application” [*PDF #6 on Carmen]*
- “Safe Companies: An Alternative Approach to Operationalizing Sustainability”. Click [here](#).  
  Note: you will need to use the OSU library to access the full article.

*Agenda for class:*

- Guest Speaker: Doug Ponsteler, Owens Corning, will discuss the interconnections between sustainability and safety.

**Tues., Nov. 8 – LECTURE & DISCUSSION**  
**Organizing Frameworks for Sustainability**

*Read before class:*

- “The Equator Principles”. Click [here](#).
- “Responsible Care Guiding Principles”. Click [here](#).
- “Sustainability Certifications and Standards: Making Sense of the Maze for Your Business”. Download [here](#).

*Agenda for class:*

- Organizing Principles  
  - Codes of conduct (e.g. Responsible Care, Equator Principles, UN Global Compact)  
  - Certifications, standards, rankings, labels
- Guidelines (e.g. Federal Executive Orders, The Natural Step, CERES Roadmap, Regeneration Roadmap, AIA/2030 Challenge, UN Sustainable Development Goals—very new)

- Strategies
  - Focus on the Value Chain
  - Think Stakeholders vs. Shareholders
  - Target both behavior and technology change
  - Promote closed-loop vs. linear flows
  - Use what already exists
  - Create Shared Value (handprints vs. footprints)

➤ At the end of class time will be reserved for 4 mini presentations.

)((Thu., Nov 10 – GUEST LECTURE
The Built Environment: High Performance Buildings

Read before class:

- “The Business Case for Green Building”. Click here.
- Review the website: “USGBC/LEED”. Click here.
- Review the website: “Green Globes”. Click here.
- :Buildings & Climate Change” Click here.

Agenda for class:

- Guest Lecture: Mr. Jack Hedge, Principal of the Design Group, will discuss the options and benefits of building green. Examples of green buildings both in Columbus and in other locations will be reviewed.

)((Tue., Nov. 15 – LECTURE & DISCUSSION
Business Risks & Opportunities: Sources & Dimensions

Read before class:

- Resilience; Navigating toward a Sustainable Future”. Click here.

Agenda for class:

- The instructor will highlight the many sources of risk and opportunity associated with the pursuit of a sustainability agenda in public and private corporations, large and small, including: investor expectations, shifting reporting requirements, climate risk, natural resources risk and brand & reputational risk. The concept and importance of resilience will be introduced.

➤ At the end of class time will be reserved for 4 mini presentations.
Thu., Nov. 17 – LECTURE & DISCUSSION  
The Economics of Ecosystems

**Read before class:**

- Review at a minimum the 2014 and 2015 reports on the TNC-DOW partnership available at [http://www.nature.org/about-us/working-with-companies/companies-we-work-with/dow/](http://www.nature.org/about-us/working-with-companies/companies-we-work-with/dow/)
- “Planetary Boundaries – A Safe Operating Space for Humanity.” Click [here](http://www.nature.org/about-us/working-with-companies/companies-we-work-with/dow/).

**Agenda for class:**

- **Guest Speaker:** Jim South, Director of Corporate Engagement for The Nature Conservancy, will discuss the dependence of business on ecosystems through the example of a partnership between TNC and DOW.
- Have available in class (electronically or hard copy): Slide Deck – “Economics of Ecosystems” [PDF # 7 on Carmen]

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Tue., Nov. 22 - LECTURE & DISCUSSION  
Corporate Sustainability Strategy plus Case Study # 2 – GOJO Industries

**Read before class**

- Re-read “Dow 2025 Sustainability Goals”. Click [here](http://www.dow.com).
- “Unilever Sustainable Living Plan”. Click [here](http://www.unilever.com).
- Case Study #2: “GOJO Industries: Aiming for Global Sustainability Leadership” Refer to Ivey Publishing Coursepack.

**Agenda for Class**

- What is Strategy?
- Key Drivers of Sustainability Strategy
- Organizing for Sustainability
- Impact of Rankings and Ratings
- Dow and Unilever examples

- Discussion of GOJO Industries case. Students should come to class prepared to discuss issues related to the case which are posted on Carmen in the Module titled “Case Studies Discussion Questions”. Prior to the case discussion, a 3-question, 5-minute quiz will be given to test students’ familiarity with the case.

- At the end of class time will be reserved for 2 mini presentations.

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Thu., Nov. 24 – NO CLASS  
Thanksgiving
Tue., Nov. 29 – LECTURE & DISCUSSION
Stakeholder Engagement plus Case Study # 3 – Pyramid Air

Read before class:

- “Global Reporting Initiative (GRI)” Click here.
- “Why Disclose to CDP”? Click here.

Agenda for class:

- Public vs. Private Companies
- Sustainability Reporting (GRI, integrated reporting)
- Investor perspectives (CERES Roadmap)
- Customer perspectives (Eco labels, greenwashing)
- Enterprise Certifications and Rankings (eEnterprise and facility level)

- Discussion of Pyramid Air Case. Students should come to class prepared to discuss issues related to the case which are posted on Carmen in the Module titled “Case Studies Discussion Questions”. Prior to the case discussion, a 3-question, 5-minute quiz will be given to test students’ familiarity with the case.

- At the end of class time will be reserved for 2 mini presentations.

Thu., Dec.1 – LECTURE & DISCUSSION
Product Issues in Sustainability plus Case Study # 4 – Herman Miller

Read before class

- Chapter 9 – Theis and Tomkin Text (Section 9.2 only – Life cycle Assessment)
- View the video, “Cradle to Cradle Design”: Click here.
- “…Secrets to Take Back Success”. Click here.
- Case study #4: Herman Miller. “Cradle to Cradle Design—Moving Toward Environmental Sustainability”. Refer to Ivey Publishing Coursepack.

Agenda for class:

- Product certifications (e.g.Cradle to Cradle, Green Seal)
- Design for Sustainability
  - Life Cycle Analysis
  - Caterpillar Example
  - Coldwater Tide example
- Product Stewardship
  - Product takeback (e.g. Levi Strauss, Best Buy, Patagonia)
  - Packaging
- Marketing & Branding
- Product as a service
Discussion of Herman Miller Case. Students should come to class prepared to discuss issues related to the case which are posted on Carmen in the Module titled “Case Studies Discussion Questions”. Prior to the case discussion, a 3-question, 5-minute quiz will be given to test students’ familiarity with the case.

At the end of class time will be reserved for 2 mini presentations.

**Tue., Dec. 6 – TEAM PROJECT REPORTS**

**Agenda for class:**

- Each project team will present conclusions only of their project work. Each team will have 10 minutes (max.) and the presentation may be offered by two or more team members (i.e. all members need not present, due to time constraints)

- Project opportunities offered for project work as the primary focus for Spring Semester will be reviewed.

**V. Graded Work**

Students will be responsible for six graded deliverables described below. Grades on these deliverables will be combined to yield a deliverables grade that will subsequently be adjusted based on the student’s engagement in class discussions to yield a final course grade as described later in the syllabus in the paragraph titled “Grading”.

1. **Team Project**

Students will work in teams of four people to develop an understanding of an emerging sustainability measurement and reporting tool known as a “materiality assessment”. Briefly, materiality assessments, which will be discussed in class, are a tool that companies and other organizations employ to evaluate how well they are aligned with stakeholders on sustainability issues.

In this project, materiality assessment will be employed to evaluate how well The Ohio State University is aligned on sustainability matters with its student body, a major stakeholder group of the University. The evaluation will be framed around the UN’s Sustainable Development Goals (SDGs) released in 2015. These goals are framed in very broad aspirational terms and represent the UN’s view regarding matters to which all organizations and individuals should pay attention in their day to day operations and decisions, to the extent applicable to their activities and actions.

There are 17 SDGs as follows:

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3. Insure healthy lives and promote well-being for all at all ages
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. Achieve gender equality and empower all women and girls
6. Ensure availability and sustainable management of water and sanitation for all
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10. Reduce inequality within and among countries
11. Make cities and human settlements inclusive, safe, resilient and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts
14. Conserve and sustainably use the oceans, seas, and marine resources for sustainable development
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

Further and extensive detail on the rational and meaning each of these goals, including 169 actionable targets, is available at the above hyperlinked website and at many other places on the internet.

In addition to being the year in which the UN released its SDGs, 2015 was also the year the OSU initiated development of its sustainability goals that were finalized in 2016.

In addition to the materiality assessment, you will also be instructed to reflect on your results to select at least one, but no more than three, goal areas where the alignment between OSU and its students needs improvement, and what actions, including approximate costs and/or other changes might be needed.

This project will be in lieu of a final exam and will count 35% of one’s overall grade; team members will be given the opportunity to evaluate the performance of other members of their team. The required deliverables include a written report and a formal presentation, in which all team members participate, delivered to the entire class at the end of the semester.

Attachment 1 contains additional information regarding delivery of presentations and preparation of the final report. A module on Carmen Titled “Sample Project Report” contains a report prepared by a previous student team that closely followed these guidelines. A Power Point copy of your presentation will be due via email by 10 PM on the evening of your presentation, Tuesday, Dec. 6. A copy of your report will be due in MS Word format by 10 PM on Friday, December 9.

2. Midterm

There will be one in-class midterm exam on Tuesday, October 18 and it will count 35% of one’s overall grade. Students will be given 50 minutes to complete the exam which will consist of a mix of true/false, multiple choice and short essay questions.

3. Mini presentations

Each student will give a 5-minute, informal mini-presentation (no slides) to the class on a topic that will be assigned by a random drawing early in the semester.

For the last several years Green Biz (www.greenbiz.com), a provider of sustainable business news, has published an annual report titled, “State of Green Business”. These reports contain very short essays on selected sustainable business topics deemed especially pertinent in a given year. Each student will randomly draw one of the topics from either the 2012, 2013, 2014, 2015 or 2016 “State of Green Business” reports and present a 5-minute summary and critique of the essay to the class. These
presentations will be scheduled throughout the semester; each students’ presentation date will be assigned early in the semester. The presentations will be graded and will count 10% of your course grade. Guidelines for presentations are contained in Attachment 1.

The 2012, 2013, 2014, 2015 and 2016 “State of Green Business” reports are posted on Carmen. From the five reports there is a total of 96 topics (also posted in Carmen) from which each student will select one in the random drawing.

4. Independent self study

You are to complete one of the two, but not both, of the following independent self studies, which will count 10% of your final course grade.

a. Book Reports

A module on Carmen contains a list of “Books for Review.” from which students may select a book to read and report upon. This is in addition to the summer reading assignment. Written book reports (target length 500 words) will be due via email in MS Word format no later than 10 PM, Friday, November 11. The book reports should not just be a summary of the main points of the book, but should include what the student agreed with (or disagreed with) or liked (or disliked) about the book, and why. If all you do is summarize the book, your grade will be penalized. The instructor has single copies of all the books which may be borrowed.

b. Food Waste Conference

A second option for completing the Independent Self Study Requirement is to attend and report on a one-day conference on food waste issues and solutions (free for students) to be held at OSU on August 26. (http://fic.osu.edu/events/upcoming-events/consumers-and-communities-food-waste-conference.html) Conference details are at the provided link and you must register in advance.

To use this option for completing the independent self-study requirement you must write a report of approximately 500 words summarizing the conference and your key takeaways. This report will be due to the instructor in MS Word format by 10 PM on Friday, September 9.

5. Summer Reading

As previously assigned, you were to read over the summer the book The Necessary Revolution – How Individuals and Organizations Are Working Together to Create a Sustainable World by Peter Senge. Your review will count 5 percent of your overall course grade.

6. Case Study Quizzes

Several class sessions will be devoted to discussions of case studies, which are to be read in advance so that you are prepared to participate in the discussion. To assure that the cases are read in advance, prior to each case discussion there will be a 5-minute, 3-question quiz covering a few basic ingredients of the case. Your score on these quizzes will be aggregated and will count 5% of your overall course grade.

Grading

Course grades will be based on a combination of factors.

Deliverables grade. A deliverables grade will be assigned for the six graded deliverables weighted as follows:
1. Team project 35%
2. Mid Term 35%
3. Mini-presentation 10%
4. Independent Self Study 10%
5. Summer reading 5%
6. Case quizzes 5%

**Classroom engagement.** Additionally, students will be graded on their classroom engagement. Classroom engagement refers to the frequency and quality of the student’s contributions to classroom discussion.

Students who are exceptionally active with thoughtful, non-repetitive contributions to class discussion will receive a one increment increase in the course grade based on the graded deliverables; for example, if a student’s graded deliverables yield a grade of “B”; the adjusted course grade will be a “B+”.

Alternatively, students that are very inactive in class discussions, or that are unprepared to contribute when called upon, will receive a one increment grade decrease in the final course grade based on the graded deliverables; for example, if a student’s graded deliverables yield a grade of “B”, the adjusted course grade will be a “B–”.

**Team project work.** In assigning student grades for work on team projects the instructor will take into account input from other team members regarding the work of other team members. Factors to be considered are in the Team Member Evaluation Form posted in the Carmen.module, “Team Project Information.”

**Grading criteria.** Letter grades will be assigned to all work using the following criteria.

- **A**  Demonstrates superb understanding of the subject as evidenced by depth and scope of critical thinking and analysis about the subject. (4.0)
- **A -** in between A and B+ (3.7)
- **B+**  Demonstrates complete understanding of the subject as evidenced by analysis and thinking about the subject. (3.3)
- **B**  in between B+ and B- (3.0)
- **B -**  Demonstrated depth and/or understanding of subject matter is somewhat below that which should be attained from information presented in class or in reading assignments (2.7)
- **C+**  in between B- and C+ (2.3)
- **C**  Demonstrated depth and/or understanding of subject matter is clearly below that which should be attained from information presented in class or in reading assignments (2.0)
- **C -**  in between C and D (1.7)
- **D +**  Demonstrated depth and/or understanding of subject matter is significantly lacking in one or more significant aspects (1.3).
- **D**  Demonstrated depth and/or understanding of subject matter is significantly lacking in many significant aspects (1.0).
E. Demonstrated gross lack of understanding of subject matter, lack of interest in course material, and/or unsatisfactory effort on assigned work (0).

Optional Extra Credit

For extra credit you may do (1) OR (2) below:

(1) - Attend and report on this event:

Thursday, September 15 Environmental Professionals Network breakfast, "Eco-Labels, Certifications, Green Advertising -- How Trustworthy Are Green Claims?" Maintaining the integrity of "green" claims is essential to continued consumer and investor preferences for environmentally-friendly products and companies.

There are two compelling presenters for this program: Professor Tim Bartley, OSU sociologist and co-author of an important new book on this topic, and attorney Laura Koss, Deputy Director, Div. of Enforcement, Bureau of Consumer Protection, Federal Trade Commission. The web registration page has links to more information, and a great graphic. The cost is $10 including a great breakfast. The event is free if you just attend the program (i.e. do not eat breakfast). Register at http://epn.osu.edu/events/epn-breakfast-club-september-2016

For the extra credit write a 400-500 word news article reporting on the talk and pitched to a business audience. Your report will be graded S-satisfactory or U-unsatisfactory. If you get an S your course grade as determined by all other factors will be increased one grade increment, i.e. a B would become a B+. There will be no penalty if your article is graded Unsatisfactory.

If you choose this option, your news article will be due by 10 PM Friday, September 23 in MS Word format via email to the instructor. Reports for extra credit will not be accepted late.

(2) – Attend and report on one of the three planned optional local, optional field trips described later in the syllabus.

For the extra credit write a 400-500 word summary about what you learned on the field trip. Your report will be graded S-satisfactory or U-unsatisfactory. If you get an S-satisfactory your course grade as determined by all other factors will be increased one grade increment, i.e. a B would become a B+. There will be no penalty if your article is graded U-unsatisfactory.

If you choose this option, your report will be due by 10 PM on the Friday following the field trip in MS Word format via email to the instructor. Reports for extra credit will not be accepted late.

VI. Course Mechanics

Class Attendance

Class sessions will not be limited to a review of assigned reading material, but rather will in addition build upon that reading. Accordingly, consistent, regular attendance will be essential to gaining exposure to material which the student will need to complete assigned work. Also, regular attendance will be a key ingredient to determining whether you receive the one increment grade adjustment (up or down) for classroom engagement.
Absences and Tardiness

Excused absences will be approved by the instructor on a case-by-case basis. Except where an emergency is involved, requests should be made by phone or email at least 3 days in advance. In the case of unexcused absences, the grade for classroom engagement will be diminished.

Classes will start on time. Arriving late is a disruption to the speaker and to the class as a whole. If you have a need to be late, advise the instructor in advance, except when circumstances are unforeseeable. Also enter as unobtrusively as possible if you arrive late and make a direct apology to any guest speaker.

Mobile Devices

Mobile devices, except laptops or tablets for note taking, shall be turned off and out of sight. Violation of this requirement will be cause for dismissal from the classroom.

Reading Material

Advance reading material from various designated sources will be assigned for each class meeting. On the average, plan to spend 2-3 hours reading the assigned material for each class. There are three sources of reading material:

- Online articles or articles/videos for which a hyperlink is provided.
- Articles & one case study (total of 7) for which PDF files are provided on Carmen.
- Selected sections of a free on-line text book: Sustainability a Comprehensive Foundation, by Tom Theis and Jonathan Tomkim. It is on Carmen or you may download it directly from here.

As an option students are encouraged to read one or more of the free daily newsletters that cover sustainable business topics. Two suggestions are available at: www.greenbiz.com and www.environmentalleader.com.

Additionally, two sustainability consulting firms’ websites provide extensive educational material:

- Strategic Sustainability Consulting, Lynchburg, VA (www.sustainabilityconsulting.com)
- Sustainable Business Consulting, Seattle, WA (www.sustainablebizconsulting.com)

Case Studies

Several class sessions will involve case studies. These are typically detailed (20 or so pages) descriptions of true circumstances faced by companies in pursuing sustainable business practices. The case studies are written for the most part by business school faculty from a wide range of business schools. The case study documents are marketed and sold (online) by various providers. Every student in a class that uses a case study is expected to purchase his or her own copy. Sharing is a violation of copyright law.

During the semester we will discuss a total of four cases. One short/mini-case is available as a PDF on Carmen. The other three cases must be purchased online from Ivey Publishing which has assembled the cases for the class into a coursepack which costs $12-$17, with the exact amount depending on whether you order printed copies or you download copies. Attachment 2 to the syllabus contains instructions for downloading the coursepack.
Students are expected to come to class sessions having read an assigned case and having thought about discussion questions that are posted on Carmen for each case. In class, students will be called upon at random to kick off a discussion of one of the case questions. Participation in these discussions will be a factor in evaluating your classroom engagement.

The cases comprise a major portion of the assigned outside reading. It is recommended that you not wait until the night before a scheduled class discussion to read the case. Ideally, read the case a week or so ahead of time and review it and reflect on the discussion questions (on Carmen) a day or two prior to the class discussion.

**Late Submissions**

Written work submitted late will be penalized one letter grade increment for each 6 hours it is late. For example, a deliverable submitted 6 hours late that would otherwise receive an A will instead receive a grade of A minus.

**Key Dates:**

All deliverables (except the midterm) are due via email to the instructor in MS Word format (PPT for the slides) by 10 PM on the date indicated

- **Friday, September 9** – Self study option food waste conference report
- **Friday, September 23** – Report on Sept. 15 EPN breakfast session on Eco-Labels etc.
- **Friday, September 23** – EXTENDED due date for summer reading
- **Tuesday, October 18** – In-class midterm exam
- **Friday, November 11** – Self study option book report.
- **Tuesday, December 6** - Copy of project presentation Power Point slides
- **Friday, December 9** – Final Project Reports

**Optional Field Trips**

Several optional field trips are planned during the two-semester course sequence subject to student interest and availability.

*All-Cluster trip to Chicago.* March 23-25, 2017 all clusters will travel to Chicago for two days of professional development and fun. Students visit businesses and organizations whose missions and activities align with the focus of their cluster.

*One-day trip to Alcoa in Cleveland.* This trip is typically scheduled for a Friday in February or March and entails a visit and tour at an Alcoa plant in Cleveland which highlights Alcoa’s commitment to sustainability and safety.

*3 - Local field trips.* Local field trips of about 2 hours each are scheduled (typically on Friday afternoons) to three facilities in Columbus whose operations align strongly with sustainability.

- **Rumpke Waste and Recycling**. Friday, September 30. Collects recyclables and operates the only Material Recovery Facility in Columbus.
- **Quasar Energy Group**. Friday, October 21. Accepts organic waste such as food waste from the Blackwell and produces soil amendments and methane (natural gas) used as fuel.
• **Arrow Value Recovery.** Friday, October 7. Recycles discarded electronic assets for corporate clients and provides high degree of security for associated data.

You will need to arrange car pools to travel to each event and you should plan to arrive at 1:15 PM. Facility tours will begin promptly at 1:30 PM. Diving directions will be provided and each location is within a 15-20 minute ride from campus. You will sign up for these trips in class. Similar trips will be made in Spring semester if everyone who is interested cannot make the Fall semester trips.

**Carmen Modules**

Considerable course detail supporting the syllabus is in Carmen. The Carmen modules are titled as follows to help guide you to specific information.

- Syllabus
- Lecture Notes
- Books for Review
- PDF Files
- Theis & Tomkin Text
- Case Studies Discussion Questions
- State of Green Business Reports and Mini Topics Presentation Schedule
- Team Project Information
- Sample Project Report

## VII. Administrative Matters

**Diversity**

We will, as a group and as individuals, hold ourselves accountable for demonstrating an openness to and appreciation for ideas of others. This means being conspicuously respectful of each other on all occasions and in all of our class transactions.

**OSU Disability Policy**

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. You are also welcome to register with Student Life Disability Services to establish reasonable accommodations. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

**Academic Misconduct**

The Ohio State University’s Code of Student Conduct, Section 3335-23-04 defines academic misconduct as: “Any activity that tends to compromise the academic integrity of the University, or subvert the educational process.” Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University’s Code of Student Conduct is never considered an “excuse” for academic misconduct. The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University’s Code of Student Conduct, and that all students will complete all academic and scholarly assignments with
fairness and honesty. Failure to follow the rules and guidelines established in the University’s Code of Student Conduct may constitute “Academic Misconduct.” Sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. For more information, please reference: http://oaa.osu.edu/coamfaqs.html#academicmisconductstatement

If you are unclear regarding any aspect of University policy on the above matters, discuss your questions with the instructor.

Non Attendance Policy

In accord with University rule 3335-8-33, any student may be disenrolled from a course for failure to attend by the first Friday of the term, or by the 3rd instructional day of the term, or by the second class meeting, whichever occurs first.
ATTACHMENT 1

Guidelines for Presentations and Reports

To help your grades in delivering presentations and preparing formal reports follow these guidelines:

Presentations

- Introduce self/selves and state topic
- Speak loud enough to be heard – clearly and distinctly.
- Tailor the detail to be conveyed to the time allotted.
- Organize your thoughts.
- Stick to the allotted time.
- Make eye contact with your audience.
- Limit reliance on note cards.
- Monetize the impact of any recommendations
- Close/summarize the presentation – don’t just stop
- Ask for questions – time permitting.
- Dress for success.
- In team presentations, design in smooth handoffs.
- Practice in advance.

If using slides

- Don’t choose a design that distracts from content.
- Minimize word density – choose key phrases to emphasize key points.
- Make eye contact with the audience.
- Show some energy/enthusiasm for your message.
- Don’t read slides.
- Make sure verbal delivery tracks content on slides.
- Design slides so they can “stand alone,” if necessary
- Employ one or more closing slides.

Formal Reports

- Use a cover page indicating report title, date, names of authors.
- Include a table of contents including a list of figures and tables.
- Include an Executive Summary at the beginning, immediately following the table of contents.
- Number the pages.
- Number tables and figures and refer to them in the text.
- Use a consistent voice throughout the report – don’t switch from “I concluded” to “we concluded” to “It was concluded”, etc.
- Employ headings and subheadings to break up major blocks of text.
• Include a summary/conclusions section or whatever is appropriate to the project to bring the report and your work to conclusion.
• Use APA format for references. Click here.
• Use spell check software to avoid spelling and grammar errors.

**In Team Project Reports**

Include in the report as the last section 100-word summaries written by each student summarizing his or her contribution to the project.

Reports will be graded on the following factors:

• Organization and content.
• Depth of thought.
• Clarity of expression.
• Adherence to the above guidelines
ATTACHMENT 2

Instructions for ordering the Coursepack from Ivey Publishing

This message explains how to purchase materials needed for your course.
Course: Introduction to Sustainability in Business - Principles & Practices
Professor(s): Neil Drobny
Starting: Aug 23, 2016
Ending: Dec 07, 2016

1. Go to the Ivey Publishing website at www.iveycases.com
2. Log in to your existing account or click "Register" to create a new account and follow the prompts to complete the registration. If registering, choose the "Student User" role.
3. Click on this link or copy into your browser: https://www.iveycases.com/CoursepackView.aspx?id=10046
4. Click "Add to Cart".
5. You may choose to order in either print or digital format.
   - To order the material in digital format, check "digital download" and click "OK".
   - To order a printed copy for delivery, enter the print quantity required and click "OK". Please note that shipping charges will apply.
6. Go to the Shopping Cart (located at the top of the page), click "Checkout", and complete the checkout process.
7. When payment has been processed successfully, an Order Confirmation will be emailed to you immediately and you will see the Order Confirmation screen.
   - If you ordered digital copies: Click "Download your Digital Items" or go to "My Orders" to access the file.
   - If you ordered printed copies: Your order will be printed and shipped within 2 to 3 business days.

IMPORTANT: Access to downloadable files will expire 30 days from the order date, so be sure to save a copy on your computer. The downloadable file is a PDF document that can be opened using Adobe Reader.

This material is for your personal use only and is not to be shared or distributed in any form.

Questions? Contact Ivey Publishing during business hours.

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Monday to Thursday: 8:00am-4:30pm (ET)
Friday: 8:00am-4:00pm (ET)