There are over 120,000 BMA degrees awarded each year in the U.S. Only a small proportion of these newly minted MBAs will do more than read about a sustainable development issue during their graduate studies. This lack of exposure to a newly developing field can be attributed to a dearth of schools attempting to proactively integrate sustainability focused experts and real-world projects into business curricula. The tide has changed, and more recently, the surge of interest in energy conservation, climate change, carbon trading, green buildings and going green has brought many companies to the doors of business schools looking for the next generation of managers with the ability to quantifying the business case for sustainable opportunities. In this class we will hear from business leaders, and then analyze and evaluate different business case studies in order to better understand the attributes of sustainable development, how to measure performance, manage change, and explore the business case for sustainability focused initiatives.

Course Mission
To build upon the fall semesters theories and models course by reviewing sustainable business practices. Through a combination of guest speakers, student lead case analysis, group projects, videos, web based information, field trips, and analysis of current readings/case studies, you will develop:

1. Familiarity with the core drivers and measures companies may use to implement sustainable initiatives and the costs/benefits of those activities.
2. The ability to identify sustainable business opportunities.
3. An understanding of the challenges of working within the developing and dynamic field of sustainable business practices.

Alignment with Graduate Program Goals
This course is designed to foster greater in-depth discussion and equip you with the critical thinking and tools to develop a better understanding of sustainability in practice. The course will combine guest speakers for the first portion of each class followed by student lead mini training sessions in case analysis with case study discussion. Weekly objectives include the development of value propositions and tools that contribute to a management toolkit to enable better decision making within and outside of this course. Fifteen business leaders have accepted invitations to come to this class and share their experiences. The speakers have also been invited to sit in on student case presentations. Through the insight provided by guest speakers, the application of your own skills and previous coursework, you will further develop the capacity to lead any organization towards economic, ecological, and social sustainability.
**Linkages Across Curriculum**
Previous courses in Sustainable Theories and Models, Financial Accounting, Applied Ethics, Advanced Marketing, Data Analysis and Economics, financial Management, Value Chains and Operations, Projects I, Systems Thinking, and Environmental Science provide a solid foundation from which to understand the general sustainable contexts in which businesses operate. This course builds on these functional areas and concepts to consider the sustainable challenges that businesses today face while hearing from successful area business leaders that are part of the next industrial revolution shaping a new direction for sustainable businesses.

**Course Materials**
- All readings available via the class Blackboard site.

**Case Studies**
- SMBA case studies available within Blackboard.

**Pedagogy:**
The specific material we cover in any class will be largely determined by your input and questions when developing the business case for sustainability. One component of your class participation grade will be the quality of your input to the discussion process with guest speakers and case analysis. Please keep in mind your participation is dependent solely upon your ability to engage in discussion. If you do not say anything during the semester, you can expect your performance evaluation to reflect your lack of substantive contribution. 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.

A second component of individual learning and assessment is directly linked to capturing information from our invited speakers. Each speaker we have in class brings an opportunity to better understand another dimension of sustainability. For each class consider yourself a manager at a professional development workshop where you can bring back to your business the important lessons learned from the speaker. So that your business colleagues can benefit from what you have learned, you will be tasked with writing a brief, one page executive summary to be submitted to your instructor. The purpose of the summary is to review the content, impacts and outcomes presented by area experts.

Group learning and assessment is facilitated through the use of team projects and deliverables. The class will be divided into randomly drawn teams for the purpose of case study preparation and presentation. Each team will be required to lead the class discussion in their assigned case(s) and to submit a written report. Teams should use the case questions posted in Blackboard as a starting point in analyzing the cases, but can include any other issues that they feel relevant to the case. Reports are to be submitted electronically the day of the presentation and have the following structure:
- Problem Statement
- Situation Analysis
- Alternatives with Advantages and Disadvantages
- Recommendations for Implementation of Chosen Alternative
- Suggestions to Monitor and Control

Cases will be assessed by your instructor on presentation/report content, communication, development of coherent analysis, and application of relevant theory. Audience members will also evaluate case presentations on preparation, thoroughness, and communication. Evaluation forms are posted in the Assignments folder in Blackboard.

**Performance Assessment:**
Your final performance evaluation will be a composite of my assessment of your contributions to discussions with invited speakers, executive summaries, case discussion, case presentation, report, and AHP deliverable.

The overall performance evaluation will be assigned based on the following weightings:

*Individual*
- Participation 20% daily, in class
- Executive Summaries 30% one summary/speaker

*Groups*
- Case Presentation/Report 30% evaluated by audience and instructor
- AHP Deliverable 20% evaluated by instructor

**Written Documents**
- All written documents should be size 12 font, New Times Roman, single spaced, 1” margins, using MLA citation guidelines.

**Deliverables:**
- all evaluation forms available within the Assignments folder in Blackboard

**Participation 20%**
- Substantive contributions to class discussion includes any comments, or analysis which advances the general class understanding of key management issues for the topic or issue, the major problems, key alternatives to consider, and appropriate decisions or plans of action that could be undertaken. Clarification questions or chip shots should not be considered substantive. I reward contributions that advance our discussion, help us change direction when needed, provoke useful debate, and build off of the comments of others. Both quantity and more importantly, *quality* is important. Each day after class I review each student’s contribution to the session and assign from 0 to 5 points. Students who say nothing get 0; those who bring in to our discussion outside materials, and who make multiple, particularly valuable, insightful, in-depth contributions get 5. At the end of the course I sum the daily points and use these scores to find breaks or trends in the data.
Executive Summaries 30%
- Format is to include: Defining the Issue; Impacts on Business; Constraints; Evaluate Alternatives and Outcomes.
- One page maximum, any citations go on the second page.
- Submitted electronically within Blackboard by the close of business on Fridays, 5PM.

Case Presentation/Report 30% (evaluated by audience and instructor, 4 students per group)
- Each team will be required to lead the class discussion in their assigned case study and to submit a written report (maximum length 5 pages, excluding title page and appendices).
- Cover sheets are required, with group member names and case study title. All written deliverables for case reports must be submitted with a cover page containing the following statement and all authors’ signatures. “In accordance with the Business School’s Code of Ethical Behavior, I attest that I have not engaged in any acts of plagiarism in completing this assignment.”
- Case reports and presentations should follow the guidelines above with the following structure: Problem Statement, Situation Analysis, Alternatives with Advantages and Disadvantages, Recommendations for Implementation of Chosen Alternative, Suggestions to Monitor and Control.
- Groups must also answer all case questions (case questions are within Blackboard)
- Evaluation will be based on audience feedback and instructor’s evaluation.
- Case reports and slides due electronically w/in Blackboard the day of class, before 1PM.

AHP Deliverable 20%
- Each team will be required to submit a written report (maximum length 5 pages, excluding title page and appendices).
- Cover sheets are required, with group member names and case study title. All written deliverables for this case must be submitted with a cover page containing the following statement and all authors’ signatures. “In accordance with the Business School’s Code of Ethical Behavior, I attest that I have not engaged in any acts of plagiarism in completing this assignment.”
- Answer all case questions and follow the case report guidelines with the following structure: Problem Statement, Situation Analysis, Alternatives with Advantages and Disadvantages, Recommendations for Implementation of Chosen Alternative, Suggestions to Monitor and Control.
- AHP spreadsheets must be in appendices.
- AHP deliverables are due the last class on April 28th.

My office number, phone and email are listed at the top of the syllabus. If you have any questions or concerns, please stop by my office or arrange an appointment via email.
<table>
<thead>
<tr>
<th>Course Goals</th>
<th>Learning Objectives</th>
<th>Assessment</th>
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<tr>
<td>Ability to recognize the drivers and measures companies use to implement sustainable initiatives.</td>
<td>Through hearing from experts and from utilizing current readings and case studies students will identify sustainability dilemmas, opportunities and the stakeholders involved.</td>
<td>Class discussion</td>
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<td>Case Analysis Report</td>
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<td>Orientation to a cost/benefit decision-making framework that is applicable to dilemmas encountered by management.</td>
<td>Using a structured approach, students will apply the frameworks, theories and tools to find the business case for sustainability.</td>
<td>Class discussion</td>
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<td>Awareness, understanding, and evaluation of various sustainable business opportunities and implementation obstacles.</td>
<td>Students will identify organizational influences on individual decision making processes and action while applying these influences to business situations.</td>
<td>Class discussion</td>
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<td>Ability to apply graduate course learning while contributing to business case analysis and discussion.</td>
<td>Students will be able to identify and analyze sustainable development dilemmas while applying previous coursework knowledge and tools.</td>
<td>Class discussion</td>
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<td>Develop better communication skills through the evaluation of managerial decisions and situations related to sustainable development and ethics.</td>
<td>Students will communicate their reasoning when resolving sustainability dilemmas; listen to other individuals’ opinions, reasoning processes and decision alternatives when resolving ethical dilemmas and enable this listening to affect the student’s reasoning processes and decision alternatives.</td>
<td>Class discussion</td>
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<td>Apply decision-making and evaluation skills necessary to balance competing resource needs with long term and short term performance.</td>
<td>Students will be able to develop, analyze, and evaluate options or alternatives for resolution of environmental and social challenges.</td>
<td>Class discussion</td>
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<td>To foster effective small group problem solving and cross-functional teamwork.</td>
<td>Students will be able to identify, analyze, discuss and debate business dilemmas surrounding changing business environments.</td>
<td>Case Analysis Report</td>
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# Overview of Schedule and Topics

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<thead>
<tr>
<th>Week/Date/Topics</th>
<th>Speakers/Case Studies/Readings</th>
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<tr>
<td><strong>1. Wednesday, January 14</strong>&lt;br&gt;Your Environmental Road Trip (YERT)</td>
<td>YERT Documentary producers Mark Dixon and Ben Evans&lt;br&gt;&lt;br&gt;<a href="http://www.yert.com/">http://www.yert.com/</a>&lt;br&gt;&lt;br&gt;Note on Case Analysis&lt;br&gt;SOBA Code of Ethical Behavior-accessible within Blackboard&lt;br&gt;<a href="http://www.business.duq.edu/other/docs/academic/CodeofEthics.pdf">http://www.business.duq.edu/other/docs/academic/CodeofEthics.pdf</a></td>
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<td><strong>2. Wednesday, January 21</strong>&lt;br&gt;Waste Management and the Business Case for Recycling</td>
<td>Tom Jackson, Green Star North America&lt;br&gt;David Mazza, Pennsylvania Resources Council&lt;br&gt;Field Trip to Recycle Management Inc.’s sorting facility on Neville Island-they support the City of Pittsburgh’s recycling single stream program and the facility is fully automated with the latest technology in N. America.&lt;br&gt;&lt;br&gt;<a href="#">Why (and how) to Take a Plant Tour</a> - read before the site visit&lt;br&gt;The Story of Stuff: <a href="http://www.storyofstuff.com/">http://www.storyofstuff.com/</a></td>
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<td><strong>3. Wednesday, January 28</strong>&lt;br&gt;Decision Support Tools&lt;br&gt;Analytical Hierarchy Process</td>
<td>Robert Sroufe, Murrin Chair of Global Competitiveness&lt;br&gt;&lt;br&gt;Case study: Ergonomics&lt;br&gt;AHP Introduction&lt;br&gt;“Conversations with Disbelievers”</td>
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<td><strong>4. Tuesday, February 3</strong>&lt;br&gt;Trends in Sustainable Business Practices</td>
<td><strong>Speaker</strong>: Matt Mehalik, Program Manager at Sustainable Pittsburgh&lt;br&gt;SMBA Case Study: Giant Eagle Plastics Recycling Value Chain&lt;br&gt;“Does it Pay to be Green”&lt;br&gt;“Six Steps to Sustainability”</td>
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<td><strong>6. Wednesday, February 18</strong>&lt;br&gt;Life Cycle Assessment&lt;br&gt;“Carbon”</td>
<td><strong>Speaker</strong>: Scott Mathews, Carnegie Mellon University, Research Design Director of the Green Design Institute&lt;br&gt;Materials TBD</td>
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<td>Date</td>
<td>Topic</td>
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| 8. Wednesday, March 11| Renewable Energy Credits                                              | **Student Team 2**  
**Speaker:** David Grupp, Market Segment Director, Direct Energy  
**Case study:** Toyota Prius, Harvard Business Press  
“Make Me Green FAQ sheet”  
“Offsetting Carbon Emissions for a Professional Association Meeting”  
“Going Carbon Neutral with Direct Energy”  
“George Gund Foundation Response to Climate Change” |
| 9. Wednesday, March 18| Legal Aspects of Operations, Acquisitions, Brownfield Sites, Divestitures | **Student Team 3**  
**Speaker:** Roxanne Turner, Senior Attorney, Kennametal  
**Case study:** Nestle’s Nescafe Partners Blend  
“Sample self assessment”  
“Environmental Audits”  
“Environmental Due Diligence”  
“Review of Acquisitions” |
| 10. Wednesday, March 25| LEED Certification, Green Building Alliance                           | **Student Team 4**  
**Speakers:** Diane Bossart, Education Manager and Eamon Geary, Project Specialist, Green Building Alliance  
**SMBA Case Study:** Highmark HVAC  
“Achieving Sustainability Through Integrated Design”  
http://www.usgbc.org/ |
| 11. Wednesday, April 1 | Green Architecture, Existing Buildings                               | **Student Team 5**  
**Speaker:** Marc Mondor, AIA, LEED AP, Principal, or David Deal, evolveEA, http://www.evolveea.com/  
**Case study:** Interface’s Evergreen Services Agreement  
“The E4S Characteristics of a Sustainable Office”  
“Building the Green Way” |
| Wednesday, April 8    | Joint Session with Public Affairs                                     | **Student Team 6**  
**Case Study:** Toyota Supply Chain Part I |
| 12. Wednesday, April 8| Service Operations                                                    | **Student Team 7**  
**Speaker:** Gaylyn Frosini, Health, Safety, and Environmental Specialist  
“Sustainable Efforts at Bombardier and currently with FedEx”  
“Continuous Improvement Gets a Green Makeover”  
“Sustainability Self Assessment Tool” |
| 13. Tuesday, April 14 | City Planning                                                         | **Student Team 8**  
**Speaker:** Lindsay Baxter, Pittsburgh Sustainability Coordinator  
**Case study:** Timberland  
“Sustainable Communities 500 – Sustainability Checklist” |
| Monday, April 20      | Joint Session with Accounting                                         | **Student Team 9**  
**Case Study:** Toyota Supply Chain Part II |
| 14. Tuesday, April 21 | Entrepreneurs                                                         | **Student Team 10**  
**Speaker:** Andrew Butcher, GTECH Strategies  
**SMBA Case Study:** Recycline Inc.  
“The Venture Development Process of “Sustainable” Entrepreneurs” |
| Monday, April 27      | Joint Session with Strategy                                           | **Student Team 11**  
**Case Study:** Toyota Supply Chain Part III |
| 15. Tuesday, April 28 | Wrap Up                                                               | **Student Team 12**  
**Case study:** Ergonomics Deliverables  
“Building Institutional Infrastructure for Corporate Responsibility”  
Semester Debrief: Manager’s Toolkit |