MGT 8803: OM Doctoral Seminar
Environmental Considerations in Managerial Decision-Making

Fall 2026

Location: Scheller College of Business
Instructor: Ravi Subramanian
Email: ravi.subramanian@scheller.gatech.edu
Office Hours: By Appointment, Room #472, Scheller College of Business

Course Description:
This doctoral-level seminar course will explore managerial decision-making at the interface between business and the environment. The emphasis will be on competitive and legal drivers. The course will first introduce participants to the pertinent economic and legal attributes of the interface. This will be accomplished through readings that are descriptive or theoretical in nature. Thereafter, the course will cover journal articles that have studied the interface both analytically as well as empirically. The sessions are organized in manner that will allow participants to coherently experience the richness of topics/issues spanned and methodologies employed in the literature.

Course Material:
All course materials/deliverables will be handled through a folder for the course on Dropbox, organized by session number. I will provide access to this Dropbox folder.

Pre-readings

1. (A Multidisciplinary Introduction to the Subject Area)
   Hoffman, A. J. 2005. Business Decisions and the Environment: Significance, Challenges, and Momentum of an Emerging Research Field. In *Decision Making for the Environment: Social and Behavioral Science Research Priorities* (G. D. Brewer, P. C. Stern, Eds.). The National Academies Press, Washington, D.C. 200-229.

2. Book Chapter on Externalities and Public Goods.

Grading:
Grading will be on the collective basis of presentations, participation in discussions, and a term paper. For the course to be meaningful, active participation is vital.

Presentations/Discussions:

Participants will be assigned specific readings to present or discuss. Presentations must not have more than 10-12 slides. The use of succinct slides with graphics (figures, flowcharts, etc.) is imperative. Presentations should be at most 20 minutes long. Discussions will be 10-15 minutes long.

In all sessions, each participant must be prepared with two key questions/issues/discussion points corresponding to each of the assigned readings for that session. These comments should be entered in the corresponding Word document in the "Discussions" subfolder for the session on Dropbox by 10:00 am on the class meeting day.

Term Paper:

A key grading component is the term paper (~15 pages, one-half spacing, 11 point font, 1 inch margins), due by [TBD, Dec 2024]. A brief (15-20 min presentation) for the term paper, outlining the research questions, relevant literature, and proposed methodological approach will be scheduled on [TBD, Nov 2024]. After the presentation, the presentation file (along with any updates) should be submitted **via email.**

I am available to discuss your term paper ideas with you and can guide you through the process. I strongly encourage you to view the term paper as part of future individual or collaborative work (with any faculty member of your choice). Multiple publications have resulted from previous term papers in seminar courses.

Academic and Research Honesty/Integrity Statement:

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the Student Code of Conduct and the Academic Honor Code, especially Appendix A: Graduate Addendum to the Academic Honor Code.

Students are expected to act in an ethical and responsible manner. All Doctoral students are required to take the Responsible Conduct of Research training, and it is expected that students abide by the principles taught in that training.

Detailed Schedule (Subsequent to 1st Session)
Subject to Updates

2. Economic and Legal Views

1. Lovins, A. B., L. H. Lovins, P. Hawken. 1999. A Road Map for Natural Capitalism. *Harvard Business Review*. (May-Jun) 145-158.
2. Reinhardt, F. 1999. Market Failure and the Environmental Policies of Firms: Economic Rationales for "Beyond Compliance" Behavior. *Journal of Industrial Ecology*. **3**(1) 9-21.
3. Joskow, P. L., R. Schmalensee, E. M. Bailey. 1998. The Market for Sulfur Dioxide Emissions. *The American Economic Review*. **88**(4) 669-685.
4. Organization for Economic Cooperation and Development (OECD). 2001. *Extended Producer Responsibility: A Guidance Manual for Governments.* **[CHAPTER 3 ONLY]**.

3. Classical Approaches (Environmental Economics and Industrial Ecology)

1. National Center for Environmental Economics. 2001. *The United States Experience with Economic Incentives for Protecting the Environment.* [**CHAPTER 3 ONLY**].
2. Calcott, P., M. Walls. 2000. Can Downstream Waste Disposal Policies Encourage Upstream Design for Environment"? *The American Economic Review: Papers and Proceedings*. **90**(2) 233-37.
3. Williams, A. S. 2009. *Life Cycle Analysis: A Step by Step Approach*. Illinois Sustainable Technology Center Technical Report TR-040. Institute of Natural Resource Sustainability, University of Illinois at Urbana-Champaign.
4. Smith, V. M., G. A. Keoleian. 2004. The Value of Remanufactured Engines: Life-Cycle Environmental and Economic Perspectives. *Journal of Industrial Ecology*. **8**(1) 193-221.

4. The Environment and Operations Management

1. Corbett, C. J., R. D. Klassen. 2006. Extending the Horizons: Environmental Excellence as Key to Improving Operations. *Manufacturing and Service Operations Management*. **8**(1) 5-22.
2. Fleischmann et al. 1997. Quantitative Models for Reverse Logistics: A Review. *European Journal of Operational Research*. **103** 1-17.
3. Souza, G. C. 2013. Closed-Loop Supply Chains: A Critical Review, and Future Research. *Decision Sciences*. **44**(1) 7-38. Invited Paper.
4. Drake, D. F., S. Spinler. 2013. *Sustainable Operations Management: An Enduring Stream or Passing Fancy?* Harvard Environmental Economics Program, Harvard Kennedy School, Discussion Paper 13-49.

5. OM Research (Economic Issues)

1. Chen, C. 2001. Design for the Environment: A Quality-Based Model for Green Product Development. *Management Science*. **47**(2) 250-263.
2. Lee, D. 2012. Turning Waste into By-Product. *Manufacturing and Service Operations Management* **14**(1) 115-127.
3. Savaskan, R. C., S. Bhattacharya, L. N. Van Wassenhove. 2004. Closed-Loop Supply Chain Models with Product Remanufacturing. *Management Science*. **50**(2) 239-252.
4. Subramanian, R., R. Subramanyam. 2012. Key Factors in the Market for Remanufactured Products. *Manufacturing and Service Operations Management.* **14**(2) 315-326.

6. OM Research (Legislative Issues)

1. Subramanian, R., S. Gupta, B. Talbot. 2008. Compliance Strategies under Permits for Emissions. *Production and Operations Management*. **16**(6) 763-779.
2. Atasu, A., R. Subramanian. 2012. Extended Producer Responsibility for E-Waste: Individual or Collective Producer Responsibility? *Production and Operations Management*. **21**(6) 1042-1059.
3. Jacobs, B., R. Subramanian. 2012. Sharing Responsibility for Product Recovery Across the Supply Chain. *Production and Operations Management.* **21**(1) 85-100.
4. Kroes, J., R. Subramanian, R. Subramanyam. 2012. Operational Compliance Levers, Environmental Performance, and Firm Performance under Cap and Trade Regulation. *Manufacturing and Service Operations Management*. **14**(2) 186-201.

7. Other Empirical Research

1. King, A. A., Lenox, M. J. 2001. Lean And Green? An Empirical Examination of the Relationship between Lean Production and Environmental Performance. *Production and Operations Management*. **10**(3) 244-256.
2. Jacobs, B., V. Singhal, R. Subramanian. 2010. An Empirical Investigation of Environmental Performance and the Market Value of the Firm. *Journal of Operations Management*. **28** 430-441.
3. Fu, W., B. Kalkanci, R. Subramanian. 2019. Are Hazardous Substance Rankings Effective? An Empirical Investigation of Information Dissemination about the Relative Hazards of Chemicals and Emissions Reductions. *Manufacturing and Service Operations Management*. **21**(3) 602-619.
4. Hora, M., R. Subramanian. 2019. Relationship between Positive Environmental Disclosures and Environmental Performance: An Empirical Investigation of the Greenwashing Sin of the Hidden Trade-off. *Journal of Industrial Ecology* **23**(4) 855-868.