

# 17.181/17.182

## Sustainability: Political Economy, Science, and Policy

### READINGS

[A] = Allenby, Braden R. *Industrial Ecology: Policy Framework and Implementation*. Prentice-Hall, 1998. ISBN: 9780139211805.

[AS] = Ashford, Nicholas A., and Ralph P. Hall. *Technology, Globalization and Sustainable Development: Transforming the Industrial State*. Yale University Press, 2011. ISBN: 9780300169720.

[B] = Becker, Egon, and Thomas Jahn, eds. *Sustainability and the Social Sciences: A Cross-Disciplinary Approach to Integrating Environmental Considerations into Theoretical Reorientation*. Zed Books, 1999. ISBN: 9781856497091.

[C] = Choucri, Nazli, ed. *Global Accord: Environmental Challenges and International Responses*. MIT Press, 1995. ISBN: 9780262531344.

[CH] = Choucri, Nazli, Dinisha Mistree, et al. *Mapping Sustainability: Knowledge e-Networking and the Value Chain*. Springer Press, 2014. ISBN: 9789400799851.

[CO] = Costanza, Robert, ed. *Ecological Economics: The Science and Management of Sustainability*. Columbia University Press, 1991. ISBN: 9780231075633.

[E] = Easterly, William. *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. MIT Press, 2002. ISBN: 9780262550420.

[L] = Lang, Winifred, ed. *Sustainable Development and International Law (International Environmental Law and Policy Series)*. Springer, 1995. ISBN: 9781859661796.

[O] = Ostrom, Elinor, Larry Schroeder, et al. *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective*. Westview Press, 1993. ISBN: 9780813316192.

[P] = Pirages, Dennis, and Ken Cousins, eds. *From Resource Scarcity to Ecological Security: Exploring New Limits to Growth*. MIT Press, 2005. ISBN: 9780262661898.

[S] = Stavins, Robert N., ed. *Economics of the Environment: Selected Readings*. 5th edition. Edited by Robert N. Stavins. W. W. Norton & Company, 2005. ISBN: 9780393927016.

[ST] = Stavins, Robert N., ed. *Economics of the Environment: Selected Readings*. 6th edition. W. W. Norton & Company, 2012. ISBN: 9780393913408.

[T] = Tainter, Joseph A. *The Collapse of Complex Societies (New Studies in Archaeology)*. Cambridge University Press, 1990. ISBN: 9780521386739.

[TE] = Tester, Jefferson W., Elisabeth M. Drake, et al, eds. *Sustainable Energy: Choosing Among Options*. 2nd edition. MIT Press, 2012. ISBN: 9780262017473.

## READINGS BY WEEKLY SESSION

WEEK #	TOPICS	READINGS
<b>Part 1 Content &amp; Context</b>		
1	Introduction-Debates, Definitions & Dilemmas	<p><i>Required</i></p> <p>[S] Hardin, Garrett. Chapter 2: The Tragedy of the Commons.</p> <p>[ST] Solow, Robert M. Chapter 28: Sustainability: An Economist’s Perspective.</p> <p>Solow, Robert M. “<a href="#">Richard T. Ely Lecture: The Economics of Resources or the Resources of Economics.</a>” <i>American Economic Review</i> 64, no. 2 (1974): 1–14. (Papers and Proceedings of the Eighty-sixth Annual Meeting of the American Economic Association)</p> <p><i>Related</i></p> <p>Goodland, Robert, and George Ledec. “<a href="#">Neoclassical Economics and Principles of Sustainable Development.</a>” <i>Ecological Modeling</i> 38 (1987): 19–46.</p> <p>Holdren, John P., Gretchen C. Daily, et al. “The Meaning of Sustainability: Biogeophysical Aspects.” Chapter 1 in <i>Defining and Measuring Sustainability: The Biogeophysical Foundations</i>. Edited by Mohan Munasinghe and Walter Shearer. World Bank, 1995. ISBN: 9780821331347.</p> <p><i>Essential</i></p> <p>[T] Chapter 1: Introduction to Collapse.</p>
2	Evolving Concepts: Growth vs. Sustainability	<p><i>Required</i></p> <p>[B] Reboratti, Carlos E. Chapter 11: Territory, Scale and Sustainable Development.</p>

WEEK #	TOPICS	READINGS
		<p>[C] Choucri, Nazli. "Introduction: Theoretical, Empirical, and Policy Perspectives."</p> <p>Pezzey, John C. V., and Michael A. Toman. "Progress and Problems in the Economics of Sustainability." Chapter 4 in <i>The International Yearbook of Environmental and Resource Economics 2002 / 2003 A Survey of Current Issues (New Horizons in Environmental Economics)</i>. Edited by Tom Tietenberg and Henk Folmer. Edward Elgar Publications, 2003. ISBN: 9781843762133.</p> <p><i>Related</i></p> <p>[CO] Hardin, Garrett. Chapter 4: Paramount Positions in Ecological Economics.</p> <p>[E] Chapter 8: Tales of Increasing Returns: Leaks, Matches, and Traps.</p> <p><i>Essential</i></p> <p>[CH] Choucri, Nazli. Chapter 1: Mapping Sustainability: Logic and Framework.</p> <p>[T] Chapter 2: The Nature of Complex Societies.</p>
3	Sustainability as a "Knowledge Domain"	<p><i>Required</i></p> <p>[A] Chapter 3: Sustainable Development.</p> <p>[CO] Christensen, Paul. Chapter 6: Driving Forces, Increasing Returns and Ecological Sustainability.</p> <p>[ST] Simpson, R. David. Chapter 25: Economic Analysis and Ecosystems: Some Concepts and Issues.</p> <p>Choucri, Nazli. "Cyber Content: Leveraging Knowledge and Networking." Chapter 4 in <i>Cyberpolitics in International Relations</i>. MIT Press, 2012. ISBN: 9780262517690. [Preview with <a href="#">Google Books</a>]</p>

WEEK #	TOPICS	READINGS
		<p><i>Related</i></p> <p>Holling, C.S. "Sustainability: The Cross-Scale Dimension." Chapter 4 in <i>Defining and Measuring Sustainability: The Biogeophysical Foundations</i>. Edited by Mohan Munasinghe and Walter Shearer. World Bank, 1995. ISBN: 9780821331347.</p> <p>Lofdahl, Corey L. "Lateral Pressure Theory." Chapter 2 in <i>Environmental Impacts of Globalization and Trade: A Systems Study</i>. MIT Press, 2002. ISBN: 9780262122450. [Preview with <a href="#">Google Books</a>]</p> <p><i>Essential</i></p> <p>[B] Sachs, Ignacy. Chapter 2: Social Sustainability and Whole Development: Exploring the Dimensions of Sustainable Development.</p> <p>[T] Chapter 3: The Study of Collapse.</p>
4	Cyberspace & Sustainability	<p><i>Required</i></p> <p>Choucrist, Nazli. "Cyberspace and Sustainability: Convergence on the Global Agenda." Chapter 9 in <i>Cyberpolitics in International Relations</i>. MIT Press, 2012. ISBN: 9780262517690.</p> <p>Drucker, Peter F. "From Capitalism to Knowledge Society." Chapter 2 in <i>The Knowledge Economy</i>. Edited by Dale Neef. Butterworth-Heinemann, 1997. ISBN: 9780750699365.</p> <p>Landes, David S. "Homo Faber, Homo Sapiens: Knowledge, Technology, Growth, and Development." Chapter 5 in <i>The Knowledge Economy</i>. Edited by Dale Neef. Butterworth-Heinemann, 1997. ISBN: 9780750699365.</p>

WEEK #	TOPICS	READINGS
		<p>Ospina, Angelina Valeria, and Richard Heeks. "<a href="#">Unveiling the Links between ICTs &amp; Climate Change in Developing Countries: A Scoping Study</a>." Center for Development Informatics, Institute for Development Policy and Management, SED, 2010, pp. 1–16.</p> <p><i>Related</i></p> <p>[A] Chapter 9: Complex Systems.</p> <p>[B] Choucri, Nazli. Chapter 8: The Political Logic of Sustainability.</p> <p><i>Essential</i></p> <p>[CH] Choucri, Nazli. Chapter 2: Global Knowledge e-Networking: Identifying e-Barriers and Introducing GSSD.</p> <p>[T] Chapter 4: Understanding Collapse: The Marginal Productivity of Sociopolitical Change.</p>
<b>Part II Actors, Processes &amp; Institutions</b>		
5	Critical Drivers-Social Mechanisms & Cognitive Factors	<p><i>Required</i></p> <p>[E] Chapter 11: Governments Can Kill Growth.</p> <p>[E] Chapter 12: Corruption and Growth.</p> <p>[P] Engleman, Robert, Richard P. Cincotta, et al. Chapter 2: The Future is Not What it Used to Be: World Population Trends.</p> <p><i>Related</i></p> <p>[P] Runci, Paul J., and Chester L. Cooper. Chapter 3: Reflections on an Aging Global Population.</p>

WEEK #	TOPICS	READINGS
		<p>Barzel, Yoram. "The Property Rights Model." Chapter 1 in <i>Economic Analysis of Property Rights (Political Economy of Institutions and Decisions)</i>. 2nd edition. Cambridge University Press, 1997. ISBN: 9780521597135. [Preview with <a href="#">Google Books</a>]</p> <p>— — —. "The Old Firm and the New Organization." Chapter 5 in <i>Economic Analysis of Property Rights (Political Economy of Institutions and Decisions)</i>. 2nd edition. Cambridge University Press, 1997. ISBN: 9780521597135. [Preview with <a href="#">Google Books</a>]</p> <p>Choucri, Nazli. "Population and the Global Environment." In <i>Energy and the Environment in the 21<sup>st</sup> Century</i>. Edited by Jefferson W. Tester. MIT Press, 1991. ISBN: 9780262200783.</p> <p><i>Essential</i></p> <p>[TE] Chapter 1: Sustainable Energy: The Engine of Sustainable Development.</p> <p>[TE] Chapter 2: Estimation and Evaluation of Energy Resources.</p> <p>[TE] Chapter 6: Energy Systems and Sustainability Metrics.</p>
6	Economic Performance- Production & Consumption	<p><i>Required</i></p> <p>[B] Gowdy, John. Chapter 9: Economic Concepts of Sustainability: Relocating Economic Activity Within Society and Environment.</p> <p>[C] Choucri, Nazli, and Robert C. North. Chapter 3: Growth, Development, and Environmental Sustainability: Profile and Paradox.</p> <p>[ST] Coase, Ronald. Chapter 2: The Problem of Social Cost.</p>

WEEK #	TOPICS	READINGS
		<p><i>Related</i></p> <p>[A] Chapter 6: Applications to Practice: Sector Initiatives.</p> <p>Lofdahl, Corey L. "Exploring Complexity: System Dynamics Analysis." Chapter 5 in <i>Environmental Impacts of Globalization and Trade: A Systems Study</i>. MIT Press, 2002. ISBN: 9780262122450. [Preview with <a href="#">Google Books</a>]</p> <p><i>Essential</i></p> <p>[C] Rothenberg, Jerome R. Chapter 9: Economic Perspectives on Time Comparisons: An Evaluation of Time Discounting.</p>
7	Technology, Firms Markets- Corporate Perspectives	<p><i>Required</i></p> <p>[C] Choucri, Nazli. Chapter 6: Multinational Corporations and the Global Environment.</p> <p>[ST] Reinhardt, Forest L., Robert N. Stavins, et al. Chapter 22: Corporate Social Responsibility through an Economic Lens.</p> <p>[ST] Portney, Paul R. Chapter 23: The (Not So) New Corporate Social Responsibility: An Empirical Perspective.</p> <p><i>Related</i></p> <p>[CH] Lim, Shung Yar. Chapter 10: The Value of Knowledge for Extended Enterprises.</p> <p>[L] Choucri, Nazli. Chapter 12: Corporate Strategies toward Sustainability.</p> <p><i>Essential</i></p> <p>[ST] Arrow, Kenneth. J., Maureen L. Cropper, et al. Chapter 11: Is There a Role for Benefit-Cost Analysis in Environment, Health and Safety Regulation?</p>



WEEK #	TOPICS	READINGS
8	Climate Change & Sustainable Development	<p><i>Required</i></p> <p>[S] Tietenberg, Tom H. Chapter 15: Economic Instruments for Environmental Regulation.</p> <p>[ST] Fullerton, Don, and Robert N. Stavins. Chapter 1: How Economists See the Environment.</p> <p>[ST] Keohane, Nathaniel O., Richard L. Revesz, et al. Chapter 32: The Choice of Regulatory Instruments in Environmental Policy.</p> <p><i>Related</i></p> <p>[S] Dasgupta, Susmita, Benoit Laplante, et al. Chapter 20: Confronting the Environmental Kuznets Curve.</p> <p>[ST] Palmer, Karen, Wallace E. Oates, et al. Chapter 6: Tightening Environmental Standards: The Benefit-Cost or the No-Cost Paradigm?</p> <p><i>Essential</i></p> <p>[CH] Choucri, Nazli. Chapter 20: Conclusion: Mapping Sustainability, Knowledge e-Networking, and the Value Chain, Synthesis, Insights, and Evidence.</p> <p>Carraro, Carlo. "Climate Change Policy: Models, Controversies and Strategies." Chapter 1 in <i>The International Yearbook of Environmental and Resource Economics 2002 / 2003 A Survey of Current Issues (New Horizons in Environmental Economics)</i>. Edited by Tom Tietenberg and Henk Folmer. Edward Elgar Publications, 2003. ISBN: 9781843762133.</p>
9	From Sustainability "Problems" to "Solution" Strategies	<p><i>Required</i></p> <p>[A] Chapter 13: Government Structure and Industrial Ecology Policy Formulation.</p>

WEEK #	TOPICS	READINGS
		<p>[C] Rothenberg, Jerome. Chapter 11: Economic Perspectives on Time Comparisons: Alternative Approaches to Time Comparisons.</p> <p>Pearce, David. "Sustainable Development and Developing Country Economies." Chapter 3 in <i>Sustainable Environmental Economics and Management: Principles and Practice</i>. Edited by R. Kerry Turner. Belhaven Press, 1993. ISBN: 9780471947813.</p> <p><i>Related</i></p> <p>[P] Conca, Ken. Chapter 4: Global Water Prospects.</p> <p>[P] Cousins, Ken. Chapter 12: Twenty-Nine Days: Responding to a Finite World.</p> <p><i>Essential</i></p> <p>[T] Chapter 5: Evaluation: Complexity and Marginal Returns in Collapsing Societies.</p> <p>[T] Chapter 6: Summary and Implications.</p> <p>See the <a href="#">Global System for Sustainable Development</a> site for specific 'matching' of 'problems' and 'solutions' by sector, issue, unit, level, context.</p>

**Part III Strategic Issues**

10	New International Institutional Contexts	<p><i>Required</i></p> <p>[C] Haas, Peter M., with Jan Sundgren. Chapter 12: Evolving International Environmental Law: Changing Practices of National Sovereignty.</p> <p>Metrick, Andrew, and Martin L. Weitzman. "<a href="#">Conflicts and Choices in Biodiversity Preservation</a>." <i>Journal of Economic Perspectives</i> 12, no. 3 (1998): 21–34.</p>
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WEEK #	TOPICS	READINGS
		<p>Ostrom, Elinor. "A Framework for Analysis of Self-Organizing and Self-Governing CPRs." Chapter 6 in <i>Governing the Commons: The Evolution of Institutions for Collective Action</i>. Cambridge University Press, 2015. ISBN: 9781107569782.</p> <p><i>Related</i></p> <p>[L] Sands, Philippe. Chapter 5: International Law in the Field of Sustainable Development: Emerging Legal Principles.</p> <p>Levy, David L., and Peter J. Newell. "Introduction: The Business of Global Environmental Governance." Chapter 1 in <i>The Business of Global Environmental Governance</i>. Edited by David L. Levy and Peter J. Newell. MIT Press, 2004. ISBN: 9780262621885.</p> <p>Levy, David L. "Business and the Evolution of the Climate Regime: The Dynamics of Corporate Strategies." Chapter 4 in <i>The Business of Global Environmental Governance</i>. Edited by David L. Levy and Peter J. Newell. MIT Press, 2004. ISBN: 9780262621885.</p> <p><i>Essential</i></p> <p>[O] Chapter 1: The Role of Infrastructure in Development.</p> <p>[O] Chapter 3: Individuals, Incentives, and Transaction Costs.</p> <p>[O] Chapter 5: Evaluating Institutional Performance.</p> <p>[O] Chapter 6: Analyzing Institutional Arrangements.</p>
11	International Responses to Sustainability Dilemmas	<p><i>Required</i></p> <p>[B] Paehlke, Robert. Chapter 13: Towards Defining, Measuring and Achieving Sustainability: Tools and Strategies for Environmental Valuation.</p>

WEEK #	TOPICS	READINGS
		<p>[CH] Wickboldt, Anne-Katrin. Chapter 14: Growing Clean?: Property Rights, Economic Growth, and the Environment.</p> <p>Røpke, Inge. <a href="#">“Trade, Development and Sustainability—A Critical Assessment of the ‘Free Trade Dogma’.”</a> <i>Ecological Economics</i> 9, no. 1 (1994): 13–22.</p> <p><i>Related</i></p> <p>[ST] Kelman, Steven. Chapter 14: Cost-Benefit Analysis: An Ethical Critique.</p> <p>Goldman, Patti A. <a href="#">“Resolving the Trade and Environment Debate: In Search of a Neutral Forum and Neutral Principles.”</a> (PDF - 1.4MB) <i>Washington &amp; Lee Law Review</i> 49, no. 4 (1992): 1279–98.</p> <p><i>Essential</i></p> <p>[ST] Frankel, Jeffrey A. Chapter 31: The Environment and Globalization.</p>
12	Global Accord: Next Round	<p><i>Required</i></p> <p>[A] Chapter 12: Legal Issues.</p> <p>[AS] Chapter 3: Economic Development and Prosperity: Current Theory and Debate.</p> <p>[AS] Chapter 10: Regional and International Regimes to Protect Health, Safety, and the Environment.</p> <p>[AS] Chapter 12: Financing Development, p. 629.</p> <p><i>Related</i></p> <p>[C] Brewer, Garry D. Chapter 8: Environmental Challenges and Managerial Responses.</p>

WEEK #	TOPICS	READINGS
		<p>Sell, Susan K. "<a href="#">Revenge of the 'Nerds': Collective Action Against Intellectual Property Maximalism in the Global Information Age.</a>" <i>International Studies Review</i> 15, no. 1 (2013): 67–85.</p> <p><i>Essential</i></p> <p>Dolšak, Nives, and Elinor Ostrom, eds. "The Challenges of the Commons." Chapter 1 in <i>The Commons in the New Millennium: Challenges and Adaptations</i>. MIT Press, 2003. ISBN: 9780262042147. [Preview with <a href="#">Google Books</a>]</p>
13	Transformation & Change: Alternative Futures	<p><i>Required</i></p> <p>[L] Sand, Peter H. Chapter 11: Trusts for the Earth: New International Financial Mechanisms for Sustainable Development.</p> <p>[ST] Porter, Michael E., and Claas van der Linde. Chapter 5: Toward a New Conception of the Environment-Competitiveness Relationship.</p> <p><i>Related</i></p> <p>[A] Chapter 16: Is the Private Firm Compatible with a Sustainable World?</p> <p>[P] Chapter 5: Cohen, Marc J. "Food Policy: Underfed or Overfed?"</p> <p><i>Essential</i></p> <p>[C] Weiss, Edith Brown. Chapter 10: Intergenerational Equity: Toward an International Legal Framework.</p>