



UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO  
PROGRAMA DE POSGRADO EN CIENCIAS DE LA  
SOSTENIBILIDAD  
MAESTRIA EN CIENCIAS DE LA SOSTENIBILIDAD  
Programa de actividad académica



Denominación:

EVALUACIONES DE SOSTENIBILIDAD EN ÁMBITOS RURALES Y URBANOS

Clave:	Semestre: 3°	Campo de conocimiento: Ninguno	No. Créditos: 8
Carácter: Optativo	Horas a la semana		Total de horas por semana
Tipo: Teórico-práctico	Teoría:	Práctica:	Total de horas al semestre
	2	2	
Modalidad: Curso	Duración del programa: Semestral		

Seriación: No ( ) Si ( X ) Obligatoria ( X ) Indicativa ( )

Actividad académica subsecuente: Ninguna

Actividades académicas antecedentes: Principios de Sostenibilidad, Herramientas Analíticas en las Ciencias de la Sostenibilidad y Herramientas para la Investigación Transdisciplinaria

**Objetivo general:**

El alumno conocerá las bases teóricas y metodológicas de las evaluaciones de sostenibilidad, comprenderá la relevancia del rigor técnico y científico que demanda la solución de los problemas complejos y perversos, y será capaz de trabajar en equipos interdisciplinarios.

**Objetivos específicos:**

1. Relacionar las bases teóricas de las ciencias de la sostenibilidad con los métodos que se aplican en las evaluaciones de sostenibilidad.
2. Desarrollar el pensamiento crítico con respecto a cómo se aplican los diferentes métodos de análisis en las evaluaciones de sostenibilidad, cumpliendo con el postulado de pluralismo epistemológico de la sostenibilidad.
3. Desarrollar un ejercicio práctico.
4. Identificar las áreas de especialización y los distintos papeles de especialistas en un equipo interdisciplinario.

Índice temático

Unidad	Unidades temáticas	Horas	
		Teóricas	Prácticas
1	Fundamentos de las evaluaciones de sostenibilidad	4	2
2	Problemas complejos y perversos	6	2
3	Orientaciones éticas en la evaluación de sostenibilidad	6	2
4	Métodos y caso práctico	14	22
5	Integración y síntesis	2	4

<b>Total de horas:</b>	32	32
<b>Suma total de horas:</b>	64	

Unidad	Contenido Temático
1	Fundamentos de las evaluaciones de sostenibilidad <ul style="list-style-type: none"> <li>• Preceptos de la sostenibilidad aplicados en las evaluaciones de sostenibilidad</li> <li>• Percepciones y conflictos</li> <li>• Diferencias entre las ciencias y las evaluaciones de la sostenibilidad</li> <li>• Marco legal en México</li> <li>• Narrativas</li> <li>• Ontologías y dimensiones ontológicas</li> </ul>
2	Problemas complejos y perversos <ul style="list-style-type: none"> <li>• Complejidad y consecuencias</li> <li>• Incertidumbre</li> <li>• Gobernanza</li> <li>• Características de un problema de sostenibilidad</li> <li>• Sistemas socioecológicos</li> <li>• Soluciones, conducción y tránsito a la sostenibilidad</li> </ul>
3	Orientaciones éticas en la evaluación de sostenibilidad <ul style="list-style-type: none"> <li>• Valores y moralidad</li> <li>• Razones apodícticas</li> <li>• Consecuencias, deberes y virtudes</li> <li>• Holismo y relacionismo</li> <li>• Postulados de la ciencia postnormal, neopragmatismo y racionalismo crítico</li> </ul>
4	Métodos y caso práctico <ul style="list-style-type: none"> <li>• Modelación multicriterio</li> <li>• Modelos de sistemas</li> <li>• Simulación de Monte Carlo</li> <li>• Caso práctico: Pesca costera demersal y conservación de tortuga amarilla en el Golfo de Ulloa</li> </ul>
5	Integración y síntesis

**Bibliografía básica:**

- Alexander, DHM 2001. From Brown to Green? Planning for Sustainability in the Redevelopment of Southeast False Creek. The Assessment and Planning Project, British Columbia Case Report no 5, Integrating the Environment into Planning for Growth Study, Department of Environment and Resource Studies, University of Waterloo. Available at <[www.fes.uwaterloo.ca/research/asmtplan/bcmain.html](http://www.fes.uwaterloo.ca/research/asmtplan/bcmain.html)>, last accessed 13 June 2006.
- Cizek, P, J McCullum and A Booth 2002. Fort Liard Cumulative Impacts Mapping Project: Technical Report. Yellowknife: Canadian Arctic Resources Committee and Canadian Parks and Wilderness Society.
- Dalal-Clayton, D B and B Sadler 2005. Sustainability Appraisal: a Review of International Experience and Practice, first draft of work in progress, January. Available at

- <<http://www.iied.org/Gov/spa/docs.html>>, last accessed 13 June 2006.
- George, C 1999. Testing for sustainable development through environmental assessment. *Environmental Impact Assessment Review*, 19, 175–200.
  - Gibson, R B 1993. Environmental assessment design: lessons from the Canadian experience. *The Environmental Professional*, 15(1), 12–24.
  - Gibson, R B 2000. Favouring the higher test: contribution to sustainability as the central criterion for reviews and decisions under the Canadian Environmental Assessment Act. *Journal of Environmental Law and Practice*, 10(1), 39–55.
  - Gibson, R B, S Hassan, S Holtz, J Tansey and G Whitelaw 2005. *Sustainability Assessment: Criteria and Processes*, London: Earthscan.
  - Guijt, I, A Moiseev and R Prescott-Allen 2001. *IUCN Resource Kit for Sustainability Assessment*. Geneva, Switzerland: IUCN Monitoring and Evaluation Initiative.
  - Gunderson, L H and C S Holling 2002. *Panarchy: Understanding Transformations in Human and Natural Systems*. Washington DC: Island Press.
  - Hacking, T 2005. Sustainable development objectives: why are they needed and where do they come from? Paper for presentation to the International experience and perspectives in strategic environmental assessment of the International Association for Impact Assessment, Prague, Czech Republic, 26–30 September
  - Harrernoës, P, D Gee, M MacGarvin, A Stirling, J Keys, B Wynne and S Guedes Vaz 2001. Late Lessons from Early Warnings: the Precautionary Principle 1896–2000. European Environment Agency, Environmental Issue Report no 22. Available at <[http://reports.eea.europa.eu/int/environmental\\_issue\\_report\\_2001\\_22/en](http://reports.eea.europa.eu/int/environmental_issue_report_2001_22/en)>, last accessed 13 June 2006.
  - Harrison, N E 2000. *Constructing Sustainable Development*. New York: SUNY.
  - HKSDU, Hong Kong Sustainable Development Unit 2002. Sustainability assessment. Available at <<http://www.susdev.gov.hk/html/en/su/sus.htm>>, last accessed 13 June 2006.
  - Hodge, R A 2004. Mining's seven questions to sustainability: from mitigating impacts to encouraging contribution. *Episodes: Journal of International Geoscience*, 27(3), 177–185.
  - IAIA, International Association for Impact Assessment 2002. Strategic environmental assessment performance criteria. IAIA special publication series no 1. Available at <[http://www.iaia.org/Non\\_Members/Pubs\\_Ref\\_Material/pubs\\_ref\\_material\\_index.htm](http://www.iaia.org/Non_Members/Pubs_Ref_Material/pubs_ref_material_index.htm)>, last accessed 13 June 2006.
  - Kates et al. 2005. What is sustainable development? Goals, indicators, values and practice. *Environment* 47(3): 8-21.
  - Kirkpatrick, C and N Lee 1999. Sustainability Impact Assessment Study: Phase Two Report. Manchester: Institute for Development Policy and Management and Environmental Impact Assessment Centre, University of Manchester
  - Leiserowitz et al. 2005. Do global attitudes and behaviors support sustainable development? *Environment* 47(9): 22-38.
  - Mebratu, D 1998. Sustainability and sustainable development: historical and conceptual review. *Environmental Impact Assessment Review*, 18, 493–520.
  - Pezzoli, K 1997. Sustainable development: a transdisciplinary overview of the literature. *Journal of Environmental Planning and Management*, 40(5), 549–574.
  - Porter, G L, R Moon and C Trent 2002. Planning Sustainable Communities: a Compilation of Community Mapping Case Studies for the Lower Mainland and Sunshine Coast of British Columbia. Community Mapping Network. Available at <<http://www.shim.bc.ca/casestudy/casestudy.html>>, last accessed 13 June 2006.

- Ravetz, J 2000. Integrated assessment for sustainability appraisal in cities and regions. *Environmental Impact Assessment Review*, 20, 31–64
- Sustainable Seattle. 2004 (reprinted from 1998). Indicators of Sustainable Community: A Status Report on the Long-Term Cultural, Economic and Environmental Health of Seattle/Kings County. Read Introduction (pgs. 1-6) and Conclusion (pgs. 69-70) only and briefly review entire document and web site.
- <http://www.sustainableseattle.org/Programs/RegionalIndicators/>.
- UK, United Kingdom 1999. A Better Quality of Life. London: Government of the United Kingdom. Summary available at <<http://www.sustainable-development.gov.uk/publications/ukstrategy99/index.htm>>, last accessed 13 June 2006.
- Gunderson, L H, C S Holling and S S Light eds. 1995. *Barriers and Bridges to the Renewal of Ecosystems and Institutions*. New York: Columbia University Press.
- Larsen and Harlan. 2006. Desert dreamscapes: Residential landscape preference and behavior. *Landscape and Urban Planning* 78: 85-100.
- Lydon, M 2000. Finding our way home: community mapping helps residents define their worries and realize their dreams. *Alternatives Journal*, 26(4), 26–29.
- McDonough, W and M Braungart 1992. *The Hannover Principles: Design for Sustainability*. New York: W McDonough Architects.
- Manfredo & Dayer. 2004. Concepts for exploring the social aspects of human-wildlife conflict in a global context. *Human Dimensions of Wildlife*, 9: 317-328.
- Moran. 2006. Chapter 4, 7-8: The Web of Life: Are We In It?, Can We Learn When We Have Enough?, and Quality of Life: When Less Is More. In *People and Nature.*, pp. 74-92, 131-176.
- Nielson and Smith. 2005. Influences on residential yard care and water quality: Tualatin watershed, Oregon. *Journal of the American Water Resources Association* 37(1): 93-106.
- Paehlke, R 2003. *Democracy's Dilemma: Environment, Social Equity and the Global Economy*. Cambridge: MIT Press.
- Robinson, J 2003. Future subjunctive: backcasting as social learning. *Futures*, 35, 839–856.
- Sachs, W 1999. *Planet Dialectics: Explorations in Environment and Development*. London: Zed Books.
- Singh, N and S Wanmali 1998. *Concept paper: the sustainable livelihoods approach*. New York: UNDP Sustainable Livelihoods Unit.
- Stern. 2000. Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*. 56(3): 407-24.
- Whitaker et al. 2006. Specificity and the cognitive hierarchy: Value orientations and the acceptability of urban wildlife management actions. *Society and Natural Resources* 19(6): 515-30

#### **Bibliografía complementaria:**

- Beck, U 1999. World Risk Society. Malden MA: Polity Press. CIDA, Canadian International Development Agency 1997. Our Commitment to Sustainable Development. Ottawa/Hull: CIDA
- Cizek, P and S Montgomery 2005. Cumulative Effects Modelling of the Mackenzie Gas Project – Scoping and Development Yellowknife: Canadian Arctic Resources Committee. Available at <[http://www.carc.org/2005/mapping\\_cumulative.php](http://www.carc.org/2005/mapping_cumulative.php)>, last accessed 13 June 2006.
- CMN, Community Mapping Network (2005), Community Mapping Network. Available

at <<http://www.shim.bc.ca/>>, last accessed 13 June 2006.

- CSA, Canadian Standards Association, Working Group of the EIA Technical Committee 1999. Preliminary Draft Standard: Environmental Assessment, Draft no 14. Toronto: CSA.
- Dryzek, J 2000. *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*. New York: Oxford University Press. FSC, Forest Stewardship Council 2004. FSC principles and criteria for forest stewardship. Available at <[http://www.fsc.org/fsc/how\\_fsc\\_works/policy\\_standards/princ\\_criteria](http://www.fsc.org/fsc/how_fsc_works/policy_standards/princ_criteria)>, last accessed 13 June 2006.
- MMSD-NA, Mining, Minerals and Sustainable Development Project North America, Task 2 Work Group 2002. *Seven Questions to Sustainability: how to Assess the Contribution of Mining and Minerals Activities*. Winnipeg: IISD.
- Senécal, P, B Sadler, B Goldsmith, K Brown and S Conover 1999. Principles of environmental impact assessment best practice. International Association for Impact Assessment and Institute of Environmental Assessment. Available at <[http://www.iaia.org/Non\\_Members/Pubs\\_Ref\\_Material/pubs\\_ref\\_material\\_index.htm](http://www.iaia.org/Non_Members/Pubs_Ref_Material/pubs_ref_material_index.htm)>, last accessed 13 June 2006.
- UK ODPM, United Kingdom Office of the Deputy Prime Minister 2005. *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents: Guidance for Regional Planning Bodies and Local Planning Authorities*. London: ODPM. Available at <<http://www.communities.gov.uk/index.asp?id=1161341>>, last accessed 13 June 2006.
- World Commission on Environment and Development 1987. *Our Common Future*. Oxford/New York: Oxford University Press.

<b>Sugerencias didácticas:</b>		<b>Mecanismos de evaluación del aprendizaje de los alumnos:</b>	
Exposición oral	( )	Exámenes parciales	( )
Exposición audiovisual	( )	Examen final escrito	( )
Ejercicios dentro de clase	(X)	Trabajos y tareas fuera del aula	(X)
Ejercicios fuera del aula	(X)	Exposición de seminarios por los alumnos	(X)
Seminarios	(X)	Participación en clase	(X)
Lecturas obligatorias	(X)	Asistencia	( )
Trabajo de investigación	(X)	Seminario	( )
Prácticas de taller o laboratorio	( )	Otras:	( )
Prácticas de campo	( )		
Otras: _____	( )		

**Perfil profesiográfico:** Grado de maestro o doctor con conocimiento en: teoría de la sostenibilidad, análisis de sistemas complejos y herramientas y técnicas para la toma de decisiones, así como experiencia docente.