

SUSTAINABLE COMMUNITIES DESIGN

GEOGRAPHY 4771 – FALL 2017

Instructor:	Graham Saunders Office: RC- Tel: 343- Email: graham.saunders@lakeheadu.ca	Office Hours: <i>As posted or by appointment.</i>
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Course Description:

A review of practical applications relating to concepts of sustainable community planning, with specific reference to transportation systems, land-use zoning, water and energy usage, severe weather resilience and agriculture. The measurement of urban sustainability and the sustainability of human activities at regional and city scales are also considered.

Prerequisite:

Geography 3731 or permission of the instructor.

Course Objectives:

- provide an appreciation for the principles and practice of Sustainable Community Design;
- explore the broader implications for society;
- explore technical issues of sustainability with regards to: waste management; landscape naturalization; water and wastewater treatment; transportation; energy; green building standards; land use planning and policy; need and methods for preparation for severe and more frequent severe weather events;
- evaluate LEED-Neighbourhood Development standards in the Thunder Bay region;
- provide opportunities for development and practice of writing and communication skills.

Course Grading:

Seminar 1: (assigned topic)	15
Seminar 2: (student choice)	
Proposal & Paper	25
Presentation	10
Midterm	25
Group Policy Brief & Oral Report	10
Project Final Written Report	10
Class Participation	5
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Seminar topics (both topic assigned and topic of your choosing) are to be related the major themes of the course (refer to course schedule). Descriptions of student-led **seminars** and the **group project** will be provided in Week 2.

Course Organization:

The course meets three hours per week (WF, 8:30-9:50 in RC 2005). These meetings will be a mix of lectures, in-class discussions and student-led seminars. Early in the semester you will be required to select a seminar topic reflecting one of the course's key themes.

Course Resources:

- (OPTIONAL) Diamond, J. 2005. *Collapse: How Societies Choose to Fail or Succeed*. Penguin Paperbacks, 592 pp. {widely available at on- and off-campus bookstores}
- (OPTIONAL) Doucet, Clive, 2007. *Urban Meltdown: Cities, Climate Change and Politics as Usual*. New Society Publishers.
- Naomi Klein, Various.
- (OPTIONAL) Owen, D., 2009. *Green Metropolis: Why Living Smaller, Living Closer, and Driving Less Are the Keys to Sustainability*. New York, NY: Riverhead Books.

To support the above additional articles and excerpts from books cited in class lectures may be provided. In addition, the following books are on reserve (or available electronically) in the Chancellor Paterson Library, which may be of use to supplement lecture material and in your research papers and seminars.

Alexander, C. *et al.* 1977. *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press, 1171 pp.

Arendt, R. 1994. *Rural By Design: Maintaining Small Town Character*. Chicago: Planners Press, American Planning Association, 441 pp.

Barton, H. 2000. *Sustainable communities: the potential for eco-neighbourhoods*. London: Earthscan, 305 pp.

Barton, H., Grant, M. and Guise, R. 2003. *Shaping neighbourhoods: a guide for health, sustainability and vitality*. London: Spon, 244 pp.

Beatley, T. 2000. *Green Urbanism: Learning from European Cities*. Washington, D.C.: Island Press, 308 pp.

Benton-Short, L. and Short, J.R. 2008. *Cities and Nature*. New York: Routledge, 281 pp.

Calthorpe, P. 1993. *The Next American Metropolis: Ecology, Community and the American Dream*. New York: Princeton Architectural Press, 175 pp.

Chambers, N., Simmons, C. and Wackernagel, M. 2000. *Sharing Nature's Interest: Ecological Footprints as an Indicator of Sustainability*. London: Earthscan, 185 pp.

Duany, A., Speck, J., and Plater-Zyberk, E. 2000. *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. North Point Press, 304 pp.

European Conference of Ministers of Transport 1995. *Urban Travel and Sustainable Development*. Paris: Organization for Economic Co-operation and Development, 238 pp.

Friedman, A. 2002. *Planning the New Suburbia: Flexibility by Design*. Vancouver: UBC Press, 194 pp.

Friedman, A. 2007. *Sustainable Residential Development: Planning and Design for Green Neighborhoods*. Maidenhead: McGraw-Hill Professional, 288 pp. [available electronically through the library web site]

Hallsmith, G. 2003. *The Key to Sustainable Cities: Meeting Humans Needs Transforming Community Systems*. Gabriola Island, BC: New Society Publishers, 259 pp.

- Jacobs, J. 2004. *Dark Age Ahead*. New York: Random House, 458 pp.
- Jacobs, J. 1961. *The Death and Life of Great American Cities*. New York: Random House Canada, 242 pp.
- James, S. and Lahti, T. 2004. *The Natural Step for Communities: How Cities and Towns Can Change to Sustainable Practices*. Gabriola Island, BC: New Society Publishers, 279 pp.
- Kahn, M.E. 2006. *Green Cities: Urban Growth and the Environment*. Washington, D.C.: Brookings Institution Press. 160 pp.
- Maclaren, V. 1993. *Sustainable Urban Development in Canada: from Concept to Practice*. Toronto: ICURR Press.
- M'Gonigle, M. and Starke, J. 2006. *Planet U: Sustaining the World, Reinventing the University*, New Society Publishers: Gabriola Island, BC, 288 pages.
- Newman, P. and Kenworthy, J. 1999. *Overcoming Automobile Dependence*. Island Press, 450 pp.
- Newman, P. and Jennings, I. 2008. *Cities as Sustainable Ecosystems: Principles and Practices*. Washington, D.C.: Island Press, 284 pp.
- Northey, M.E. and McKibbin, J. 2002. *Making Sense: A Student's Guide to Research and Writing*, 4th Edition. Don Mills, Ont: Oxford University Press, 178 pp.
- Register, R. 1987. *Ecocity Berkeley: Building Cities for a Healthy Future*. North Atlantic Books, Berkeley, California, 140 pp.
- Register, R. 2006. *Ecocities: Rebuilding Cities in Balance with Nature*. Gabriola Island, BC: New Society Publishers, 373 pp.
- Roseland, M. and Connelly, S. 2005. *Toward Sustainable Communities: Resources for Citizens and their Governments*. Gabriola Island, BC: New Society Publishers, 239 pp. [available electronically through the library web site]
- Thomas, R. (editor) 2003. *Sustainable Urban Design: an Environmental Approach*. London: Spon, 212 pp.
- White, R.R. 2002. *Building the Ecological City*. Cambridge, UK: Woodhead Publishing Ltd., 238 pp.
- Wilson, A. 2006. *Your Green Home: A Guide to Planning a Healthy, Environmentally Friendly New Home*. Gabriola Island, BC: New Society Publishers, 237 pp. [available electronically through the library web site]

GEOG 4771 COURSE SCHEDULE (subject to changes)

Week of	Wednesday	Friday
Sept 6, 8		Course Introduction, Sustainability, Sustainability Criteria Seminars and Class Project Course overview/planning
Sept 13, 15	Discussion of study areas; hints, strategies Lecture: Cities in Peril; Cities and Progress	Sustainable Urban Development
Sept 20, 22	<i>To be announced ...</i>	Sustainable Transportation ³
Sept 27, 29	Green Building / LEED standards	1. Re-introduction of light rail / streetcars 2. Neighbourhood traffic calming
Oct 4, 6	Sustainable Energy Technologies	3. OPA-sponsored solar collection program 4. District heating
Oct 11, 13	Reading week	Reading week
Oct 18, 20	8) Sustainable Agriculture / Landscaping ³	5. BC's Agricultural Land Reserve Municipal street tree planting programs and benefits
Oct 25, 27	<i>To be announced ...</i>	Seminars
Nov 1, 3	MIDTERM	Seminars
Nov 8, 10	Green Building / LEED Standards)	<i>To be announced ...</i>
Nov 15, 17	Seminars	<i>To be announced ...</i>
Nov 22, 24	<i>To be announced ...</i>	Seminars
Nov 29	Seminars	Seminars
Dec 1	Achieving Sustainability	no class

NOTES: Last day of classes is Mon. Dec. 3rd, 2017; Final date to register for a course (Monday, Sept 18);

