# EVDS 501/601, ARST 483 Interdisciplinary Seminar

Fall 2012 (Half course)

Wednesdays and Fridays 11:00-13:15 hrs.

Room ENE 243 (11:00 - 12:15) and

Rooms PFB 2165, 3160, 4140, 3175, 3176, 3177, and 3197 (12:30 – 13:15)

Managers: Dr. Noel Keough, PF – 4176, 220-8588, nkeough@ucalgary.ca

Prof. Graham Livesey, PF – 3168, 220-8671, livesey@ucalgary.ca

TAs: Heather Ens (<a href="mailto:ensheather1@gmail.com">ensheather1@gmail.com</a>), Stuart Wershof (<a href="mailto:swershof@ucalgary.ca">swershof@ucalgary.ca</a>),

Jessica Guinto (guintoj@gmail.com), Salman Khalili (salmankhalili@gmail.com),

Ximena Gonzalez De Aguinaga (xmgonzal@ucalgary.ca), Ogheneovo Samuel Adgha (osadagha@ucalgary.ca

Draft 3.3/August 31, 2012

#### INTRODUCTION

Environmental Design (EVDS) is an interdisciplinary approach to the conceptualization, design and execution of interventions in human and natural environments at a variety of scales – from object to global – and including physical, process, and policy interventions. This course will introduce students to four key concepts in Environmental Design: Ecology, Design, Sustainability, and Ethics. The concepts will be introduced and discussed through a broad spectrum of faculty and guest lectures, videos, discussions, and assignments.

### **OBJECTIVES**

- 1. Students will be able to discuss and articulate a range of theoretical perspectives on key concepts of Environmental Design: Ecology, Design, Sustainability, and Ethics.
- 2. Students will be able to articulate their own understanding of key concepts in EVDS and position their understandings in relation to prominent positions and debates within the field.
- 3. Students will develop diagnostic skills and be able to examine design interventions and articulate the nature of the intervention, key elements of the intervention and its critical design issues.
- 4. Students will improve their critical, creative and professional written, oral and visual communications skills and demonstrate that their communication skills are commensurate with study at a graduate level.

# **TEACHING APPROACH**

This course will introduce students to a broad range of theoretical and professional perspectives on Environmental Design represented within the faculty of environmental design, the wider university community and professional and community practitioners. This material will be introduced, discussed and debated through lectures, videos, readings, small group discussion, field exposures and hands on exercises. The course will be framed around four key themes: Ecology, Design, Sustainability and Ethics. Topics will be explored predominantly within the spatial context of the Calgary (Bio)Region. The course will introduce students to examples and case studies of design intervention at variety of scales: object, building, neighbourhood, community, city, (bio)region, ecosystem, and biosphere. The course will focus attention on the underlying processes by which physical environments are shaped and evolve.

# **COURSE EXPECTATIONS AND MEANS OF EVALUATION**

Students will be expected to attend all lectures and discussion sessions. Students will also be expected to read to assigned readings and come to class prepared to discuss the issues and concepts raised in the readings. All papers are to be properly referenced (refer to Plagiarism section at the end of this outline) using the *The Chicago Manual of Style* format (see <a href="www.chicagomanualofstyle.org">www.chicagomanualofstyle.org</a>). Students who have difficulties with writing are referred to the university's Writing Centre.

Students will be expected to complete each of the course assignments. There will be no final exam. Students must obtain an overall passing grade to pass this course. Quality of writing (spelling, grammar, clarity) will be a component of the assessment of all assignments. The assignments are as follows:

1. In-class Writing Assignment (300 words)

10%

Students are required to hand write a 300 word essay critically examining the question: "What is Environmental

Design"?

Deadline: September 12

2. Jane's Walk. 20%

Working in groups of two, students are to prepare a "Jane's Walk" that examines a "cultural district" in the City of Calgary (1. Olympic Plaza Area, 2. Inglewood/Ramsay, 3. Beltline, 4. Kensington/Sunnyside, 5. Bridgeland, 6. Bowness/Montgomery, 7. University of Calgary, 8. International Avenue SE, 9. Stampede Grounds/Victorial Park, 10. 4th Street SW/Mission, 11. Marda Loop, 12. Martindale/Saddletown NE). Developed in memory of the distniguished urbanist Jane Jacobs, the walks engage people with the cities they live in. The project involves developing a 90 minute walk including itinerary (and map), descriptions of sights, and photographs; the material is to be compiled into a well designed document. This assignment is thematically related to this year's makeCalgary event developed by the Faculty of Environmental Design. Refer to assignment handout for further details. Deadline: October 3

3. Term Essay (3000 words)

30%

Following academic standards for a term paper (critical, well researched, referenced), write a 3000-4000 word essay that critically examines a posed question or topic. Refer to handlout for further details.

Deadline: November 30

4. Pecha Kucha Presentation

20%

Working in teams of 3 students, you are to develop a "Pecha Kucha" presentation (see <a href="www.pecha-kucha.org">www.pecha-kucha.org</a>) in one of the four thematic topics. Select a topic and develop a critical take on it. The presentation involves 20 slides (images and/or text) and a verbal presentation. Each image is shown for 20 seconds, for a total presentation of 6 minutes, 40 seconds. Each session will involve 7-8 presentations. Presentations will be graded on content, clarity, continuity, and visual communications. Refer to handlout for further details.

Deadline: Refer to course schedule.

5. Reading Summaries

20%

During the semester students are required to write 250-400 word critical summaries of each of the required readings. These are to be handed in the TAs at the discussion groups. Deadline: Each discussion session.

# **SCHEDULE AND TOPIC AREAS**

1. Wednesday, September 12, 2012 1. Course Introduction (N. Keough and G. Livesey)

2. Assignment 1

2. Friday, September 14 1. Lecture: **Ecology 1** – Introduction to Ecology (M. Quinn)

2. Videos: Microcosmos (1996), or Ecological Design: Inventing the

Future (1994).

3. Wednesday, September 19 1. Lecture: Calgary – History and Structure (B. Sandalack)

2. Discussion Groups

Reading 1

4. Friday, September 21 1. Lecture: **Ecology 2** –Ecological Economics (N. Keough)

2. Discussion Groups

Reading 2

5. Wednesday, September 26 1. Lecture: **Ecology 3** – Political Ecology (B. Miller)

2. Discussion Groups

Reading 3

6. Friday, September 28 1. Lecture: **Ecology 4** – Calgary Region Ecology (M.-E. Tyler)

2. Discussion Groups

Reading 4

7. Wednesday, October 3 1. Ecology Pecha Kucha Presentations

2. Discussion Groups

Reading 5

Assignment Hand-in: Jane's Walk

8.	Friday, October 5	<ol> <li>Lecture: <b>Design 1</b> – Approaches to Design (G. Livesey)</li> <li>Videos: Sketches of Frank Gehry (2005), or Helvetica (2007).</li> </ol>
	October 9-12	EVDS Fall Block Week/makeCalgary
9.	Wednesday, October 17	<ol> <li>Lecture: <b>Design 2</b> – Design (B. Wylant)</li> <li>Discussion Groups</li> <li>Reading 6</li> </ol>
10.	Friday, October 19	<ol> <li>Lecture: <b>Design 3</b> – Design and Systems (R. Levy)</li> <li>Discussion Groups</li> <li>Reading 7</li> </ol>
11.	Wednesday, October 24	<ol> <li>Lecture: <b>Design 4</b> – Design and Practice (M. Boutin)</li> <li>Discussion Groups</li> <li>Reading 8</li> </ol>
12.	Friday, October 26	Design Pecha Kucha Presentations     Discussion Groups Reading 9
13.	Wednesday, October 31	<ol> <li>Lecture: Sustainability 1 – Introduction (N. Keough)</li> <li>Videos: Manufacturing Landscapes (2006), or Carbon Nation (2010).</li> </ol>
14.	Friday, November 2	<ol> <li>Lecture: Sustainability 2 – Sustainability and Technology (G. Assefa)</li> <li>Discussion Groups Reading 10</li> </ol>
15.	Wednesday, November 7	Lecture: <b>Sustainability 3</b> – Land Conservation and Development by Design (C. Gates)     Discussion Groups     Reading 11
16.	Friday, November 9	Lecture: Sustainability 4 - Energy and Sustainability (A. Nikiforuk)     Discussion Groups     Reading 12
	November 10-13	University Reading Days
17.	Wednesday, November 14	Sustainability Pecha Kucha Presentations     Discussion Groups     Reading 13
18.	Friday, November 16	<ol> <li>Sustainability Pecha Kucha Presentations</li> <li>Discussion Groups</li> </ol>
19.	Wednesday, November 21	Lecture: <b>Sustainability 5</b> - The Architecture of Change (B. Kolarevic)     Discussion Groups     Reading 14
20.	Friday, November 23	<ol> <li>Lecture: Ethics 1 – Professional Ethics (R. Stanley)</li> <li>Videos: Who Killed the Electric Car? (2006), or An Unreasonable Man: Ralph Nader (2006).</li> </ol>
21.	Wednesday, November 28	<ol> <li>Lecture: Ethics 2 – Professional Ethics (D. Dick)</li> <li>Discussion Groups</li> <li>Reading 15</li> </ol>
22.	Friday, November 30	1. Lecture: Ethics 3 – Professional Ethics (D. Swann)

2. Discussion Groups

Reading 16

Assignment Hand-in: Essay

23. Wednesday, December 5

1. Lecture: Ethics 4 - Ethics, Environment and Professions

(J. Keeping)

2. Discussion Groups

Reading 17

24. Friday, December 7

### 1. Ethics Pecha Kucha Presentations

2. Discussion Groups

Reading 18

#### REQUIRED READINGS

# **Calgary and Cities**

## Reading 1

Sandalack, B. and A. Nicolai. *The Calgary Project: Urban Form/Urban Life*, University of Calgary Press, 2006, ISBN 1-55238-217-6 (210 pages), 10-27, 104-123.

Jacobs, J., "The uses of city neighborhoods," in *The Death and Life of Great American Cities*, Vintage, 1961, ISBN 394-70241-7 (458 pages), 112-140.

Mumford, L. "The Culture of Cities," in Kasinitz, P., ed., *Metropolis: Center and Symbol of Our Times*, NYU Press, 1995, ISBN 0-8147-4640-3 (496 pages), 21-29.

# **Ecology**

# Reading 2

Worster, Donald, "Chapter 15," in *Nature's Economy: A History of Ecological Ideas*. Cambridge University Press, 1994, ISBN: 0-521-46834-5 (505 pages), 316-338.

#### Reading 3

Commoner, Barry, "Chapter 2: The Ecosphere," "Chapter 7: Man in the Ecosphere," in *The Closing Circle: Man, Nature and Technology*, Bantam Books, 1974 (343 pages), 11-44, 109-122.

#### Reading 4

Capra, Fritjof, "Chapter 3: Social Reality," *The Hidden Connections: Integrating the Biological, Cognitive and Social Dimensions of Life into A Science of Sustainability*, Doubleday, 2002, ISBN: 0-385-49471-8 (300 pages), 70-94.

#### Reading 5

Holling, C.S., L.H. Gunderson and D. Ludwig, "Chapter One: In Search of a Theory of Adaptive Change," in *Panarchy: Understanding Transformations in Human and Natural Systems*, 2002, ISBN: 1559638567 (507 pages), 3-24.

URL: http://www.resalliance.org/index.php/panarchy

# Design

#### Reading 6

Buchanan, R., "Wicked Problems in Design Thinking," in Margolin, V. and R. Buchanan, eds., *The Idea of Design*, MIT Press, 1995, ISBN 0-262-63166-0 (286 pages), 3-20.

# Reading 7

Latour, Bruno. 2008. "A Cautious Prometheus? A Few Steps Toward a Philosophy of Design." Keynote Lecture for the Networks of Design meeting of the Design History Society Falmouth, Cornwall, 3<sup>rd</sup> September 2008.

#### Reading 8

Orr, David. "Human Ecology as a Problem of Ecological Design." In *The Nature of Design*, Oxford University Press, 2002, ISBN: 0-19-514855-X (238 pages), 13-32.

### Reading 9

Hawken, P., A. Lovins, and L. Hunter Lovins. "Reinventing the Wheels: Hypercars and Neighborhoods," in *Natural Capitalism: Creating the Next Industrial Revolution*, Little, Brown and Co., 1999, ISBN 0-316-35316-7 (396 pages), 22-47.

Benyus, Janine, "Chapter 1: Echoing Nature: Why Biomimicry Now?" and "Chapter 8: Where Will We Go From Here?" in *Biomimicry: Innovation Inspired by Nature*, William Morrow and Company, 1997, ISBN 0688136915 (308 pages), 1-10, 285-299.

# Sustainability

#### Reading 10

Homer-Dixon, Thomas, "Chapter 1: Tectonic Stresses," in *The Upside of Down: Catastrophe, Creativity and the Renewal of Civilization*, A.A. Knopf, 2006, ISBN: 0676977227 (429 pages), 9-30.

### Reading 11

Davison, Aidan, "Part I: Sustainable Development: an Ecomodernist Project," in *Technology and The Contested Meanings of Sustainability*, State University of New York Press, 2001, ISBN: 0-7914-4980-7 (281 pages), 1-36.

### Reading 12

Goodwin, Brian, "Chapter 3: Science With Qualities," in *Nature's Due: Healing Our Fragmented Culture*, Floris Books, 2007, ISBN: 0863155960 (188 pages), 69-84.

### Reading 13

Nikiforuk, Andrew, "Chapter 4: Thew New Servitude" and "Chapter 11: The Surplus Devolution," in *The Energy of Slaves: Oil and the New Servitude*, Greystone Books, 2012, ISBN: 978-1-55365-978-5 (296 pages), 62-73, 204-218.

# Reading 14

Nye, David, "Chapter 7: Should The Market Select Technologies?" in *Technology Matters: Questions to Live With*, MIT Press, 2006, ISBN: 0-262-14093-4 (298 pages), 135-160.

#### **Ethics**

### Reading 15

Wilson, E.O. "The Environmental Ethic," in *Diversity of Life*, W.W. Norton and Co., 1992, ISBN 0-393-31047-7 (424 pages), 343-351.

Thompson, I., "The Ethics of Sustainability," in Benson, J.F. and M. Roe, eds., *Landscape and Sustainability*, Routledge, 2007, ISBN 978-0-415-40443-3 (320 pages), 16-36.

#### Reading 16

Harper, Thomas and Stanley Stein, "Part III: Planning Should be Critically Liberal," in *Dialogical Planning in a Fragmented Society*, Centre for Urban Policy Research Press, 2006, ISBN-10: 0-88285-179-9 (350 pages), 81-117.

## Reading 17

Russ, T.H., "Professional Ethics," in *Sustainability and Design Ethics*, Taylor and Francis, 2010, ISBN 978-1-4398-0854-2 (156 pages), 19-45.

#### Reading 18

Sen. Åmartya, "Introduction: An Approach To Justice," in *The Idea of Justice*, Belknap Press, Harvard, 2010, ISBN-10: 0674036131 (496 pages), 1-27.

Eckersley, Robyn, "Chapter 18: Environment Rights and Democracy," in Keil, Bell, Penz and Fawcett, *Political Ecology: Global and Local*, Routledge,1998, ISBN: 0-415-18381-2 (408 pages), 253-376.

### **SELECT BIBLIOGRAPHY**

Abram, D., The Spell of the Sensuous.

Adam, B., U. Beck and J. Van Loon. The Risk Society and Beyond: Critical Issues in Social Theory.

Andric, I. The Bridge on the Drina.

Anielski, M. The Economics of Happiness,

Appadurai, A. Modernity at Large: Cultural Dimensions of Globalization.

Arnold, D.G., ed. The Ethics of Global Climate Change.

Augé, M. Non-places: Introduction to an Anthropology of Supermodernity.

Bachelard, G. The Poetics of Space.

Bateson, G. Towards an Ecology of Mind.

Becon, M., J.L. Harper and C.R. Townsend. Ecology: From Individuals to Ecosystems.

Botton, A. de. The Architecture of Happiness.

Brockett, R.G. and R. Hiemstra. Toward Ethical Practice.

Brown, V. and J. Harris and J. Russell. Tackling Wicked Problems Through The Transdisciplinary Imagination,

Daly, H. Beyond Growth.

Davis, M. Planet of Slums.

DeLanda, M. A New Philosophy of Society: Assemblage Theory and Social Complexity.

Ehrenfeld, J. Sustainability by Design: A Subversive Strategy for Transforming Our Consumer Culture.

Everden, N., The Natural Alien: Humankind and Environment.

Fisher, T. Ethics for Architects.

Franklin, U. The Real World of Technology.

Friedman, J. Planning in the Public Domain: From Knowledge to Action.

Freire, P. Extension or Communication, in Education for Critical Consciousness.

Gardiner, S.M. A Perfect Moral Storm: The Ethical Tragedy of Climate Change.

Gehl, J. Cities for People.

Gladwell, M. The Outliers: The Story of Success.

Gore, A. Our Choice: A Plan to Solve the Climate Crisis.

Haila, Y. and C. Dyke. How Nature Speaks: The Dynamics of the Human Ecological Condition.

Harrison, A. Making and Thinking: A Study of Intelligent Activities.

Henderson, H. Beyond Globalization: Shaping a Sustainable Global Economy.

Jackson, T. The Earthscan Reader in Sustainable Consumption.

Johnson, D. and J. Wetmore. Technology and Society: Building Our Sociotechnical Future.

Jones, J. Christopher. Design Methods.

Kahney, L. Inside Steve's Brain.

Kingwell, M. Concrete Reveries: Consciousness and the City.

Kingwell, M. The World We Want: Virtue, Vice and the Good Citizen.

Koestler, A. The Act of Creation.

Korten, D. When Corporations Rule the World.

Leonard, A. The Story of Stuff: How Our Obsession with Stuff Is Trashing the Planet, Our Communities, and Our Health-and a Vision for Change.

Livingston, J. Rogue Primate: An Exploration of Human Domestication.

Lomburg, B. The Skeptical Environmentalist: Measuring the State of the Real World.

Lynch, K. The Image of the City.

Margolin and R. Buchanan. The Idea of Design.

McDonough, W. and M. Braungart. Cradle to Cradle: Remaking the Way We Make Things.

Milani, B. Designing the Green Economy: The Postindustrial Alternative to Corporate Globalization,

Monbiot, G. Heat: How to Stop the Planet Burning.

Munari, B. Design as Art.

Nattrass, B. and M. Altomare. Dancing with the Tiger: Learning Sustainability Step by Natural Step.

Nelson, H. and E. Stolterman, The Design Way: Intentional Change in an Unpredictable World.

Orr, D. Design on the Edge: The Making of a High-Performance Building.

Ostrom, E. Governing the Commons: The Evolution of Institutions for Collective Action.

Parr, A. Hijacking Sustainability.

Postman, N. Technopoly: The Surrender of Culture to Technology.

Pye, D. The Nature of Design.

Rose, A. Who Killed The Grand Banks: The Untold Story Behind The Decimation of One of the World's Greatest Natural Resources.

Rowe, P. Design Thinking.

Schon, D., The Reflective Practitioner.

Schon, J.B. Plenitude.

Sen, A. The Idea of Justice.

Senge, P. The Fifth Discipline.

Sennett, R. The Fall of Public Man: On the Social Psychology of Capitalism.

Sennett, R. The Craftsman.

Smith, G. Deliberative Democracy and The Environment.

Tenner, E. Our Own Devices: How Technology Remakes Humanity.

Thackara, J. In the Bubble: Designing in a Complex World.

Urry, J. Global Complexity.

Urry, J. Mobilities

Villiers, M. de. Water: The Fate of our Most Precious Resource.

Walker, S. Sustainable By Design: Explorations in Theory and Practice.

Waring, M. Counting for Nothing: What Men Value and What Women Are Worth.

Wilkinson, R. and K. Pickett. The Spirit Level: Why Greater Equality Makes Societies Stronger.

Wilson, E.O. The Future of Life.

### Youtube/Interviews

Dieter Rams: www.youtube.com/watch?v=ncw3f4jgNP4&feature=related

Bruce Mau: www.youtube.com/watch?v=FnNJ\_zMOan0
Michael Sorkin: www.youtube.com/watch?v= n3Cl7PL6Oo
Ross Lovegrove: www.youtube.com/watch?v=sWqkKYwvTNw

Janine Benyus: www.youtube.com/watch?v=n77BfxnVlyc&feature=relmfu

David Orr: www.youtube.com/watch?v=RnGtr2n23YY

Peter Eisenman: www.cbc.ca/ideas/episodes/features/2010/09/21/wachtel-on-the-arts-4/

#### **NOTES**

- Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor.
- 2. It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. (http://www.ucalgary.ca/drc/node/46) Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.
- 3. Plagiarism Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.
- 4. Information regarding the Freedom of Information and Protection of Privacy Act (http://www.ucalgary.ca/secretariat/privacy) and how this impacts the receipt and delivery of course material
- 5. Emergency Evacuation/Assembly Points (http://www.ucalgary.ca/emergencyplan/assemblypoints)
- 6. Safewalk information (<a href="http://www.ucalgary.ca/security/safewalk">http://www.ucalgary.ca/security/safewalk</a>)
- Contact Info for: Student Union (<a href="http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info">http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info</a>); Graduate Student representative(<a href="http://www.ucalgary.ca/gag/">http://www.ucalgary.ca/gag/</a>) and Student Ombudsman's Office (<a href="http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights">http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights</a>).
- At the discretion of the instructor, assignments submitted after the deadline may be penalized with the loss of a grade (e.g.: A- to B+) for each day late. The following equivalencies will be used in determining grades: A+ (92-100); A (87-92.49); A- (82-86.99); B+ (77-81.99); B (72-76.99); B- (67-71.99); C+ (62-66.99); C (57-61.99); C- (52-56.99); D+ (47-51.99); D (42-46.99); F (0-41.99).
- 9. A student who receives a "C<sup>+</sup>" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript. Final grades will be reported as letter grades, with the final grade calculated according to a 4-point range. Assignments will be evaluated by percentage grades with their letter grade equivalents as shown.