

## ES/ENVS 6121 Community, energy and planning

This course examines the relationship between sustainable communities and sustainable energy systems. In the context of climate change, environmental, ethical, and social concerns, the course will consider the flexibility and adaptability of landscape, communities and city-building processes, and integrated and multi-scalar responses and approaches to policy-making and implementation.

**Course Director:** Professor Christina Hoicka  
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**Office hours:** Thursday 11AM to 12PM, drop-in, please check my blog for updates <http://cehoicka.blog.yorku.ca/>

### Objectives:

The objectives of this course are fourfold:

First, for students to describe and differentiate between the drivers of change and path dependence in energy systems and resource intensive communities.

Second, students will learn theory and concepts that support an understanding of the integrated and multi-scalar responses and approaches to policy-making and implementation of community energy planning. These will consider strong sustainability goals, long-term change and sustainable communities.

Third, students will learn practical skills through guest lectures and projects that are supportive of more sustainable use of energy and of working in the interdisciplinary environment that is community energy planning. For example, students will not master engineering knowledge or principles, but they will learn concepts and practices that are important to engineers, and therefore prepare them for these discussions.

Fourth, students will improve their ability to communicate complex concepts and materials in a concise and effective manner.

### Outline:

#### Course format

- The course will take place on Thursdays from 230 to 530 PM.
- The course textbook and readings have been carefully selected so that students can meet the learning objectives of the course and have a wide breadth of knowledge upon entering the community energy planning and policy field of work.
- In the first week, students will sign up to present summaries of the readings, and to lead a discussion in the seminar format during the first 90 minutes of class. The summaries and participation in discussions will constitute a large portion of evaluation of the student.
- **Summaries are due on Moodle (preferred) or in hard copy in class, the date that the reading is due.**
- During the latter 90 minutes of class, students will receive a lecture or activity based in practical knowledge, delivered either by the course instructor or a guest lecturer who is a recognized leader in the field.
- Early in the semester, students will be assigned a research paper that on a topic developed by a municipality. **This paper will be due on the last class, when presentations of the projects will take place. Late submissions will not be considered.**
- At the end of the semester, students will collaborate on a document titled "Ideal Principles of Community Energy Planning" with the intention of using it to guide conversations at York University.

### Schedule of Activities

#### Week 1. Sept 11, 2014 Course introduction

Sign up to present readings in subsequent weeks

#### Week 2. Sept 18, 2014 The role of energy in society, drivers for change

Sign up for research paper topics

#### Week 3. Sept 25, 2014 Scenarios for cities

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**Week 4. Oct 2 2014** Land use, space, scale, and time

**Week 5: Oct 9 2014** Exergy, optimization and monitoring

**Week 6: Oct 16 2014** Urban and rural energy landscapes, importing energy to the city

**Week 7: Oct 23 2014** Sustainability Transitions

**Oct 30 2014—no class co-curricular days**

**Week 8: Nov 6 2014** What to do part 1 transportation

**Week 9: Nov 13, 2014** What to do part 2: Theories and practice of community engagement at the community level

**Week 10: Nov 20 2014,** Current practice in Canada and ideal principles of community energy planning

**Week 11: Nov 27 2014** Financing and local economic development

**Week 12: Dec 4 2014** Presentations

### Requirements:

#### Assignment Submissions

Students are encouraged to submit their assignments via the Moodle website in the appropriate dropbox. Assignments must be submitted in Word (.doc or .docx) format. Students with supplementary materials in an Excel spreadsheet are encouraged to submit the spreadsheet with calculations. **Assignments in PDF format will not be accepted.**

### Relation to Other Courses:

This course is designed to promote the type of interdisciplinarity required for community energy planning. Hence, students with different disciplinary backgrounds will bring together their strong set of knowledge to integrate and problem solve as a group. Enrolment to this course is by permission only, to be received from the Course Director. Students with a strong background in (undergraduate degree or one year of courses focused in) in planning, energy, and resource/ecological economics are encouraged to seek permission directly from the course director.

### Preliminary Reading List:

Required reading, available for purchase from the bookstore:

Newman P, Beatley T, Boyer H (2009) Resilient cities responding to peak oil and climate change. Island Press, Washington, DC

We will read select chapters from this book, which is available on the library's website for free. Please note that six students can read this simultaneously.

Sven Stremke, Andy van den Dobbelsteen (2013) Sustainable Energy Landscapes: Designing, Planning, and Development. CRC Press, Boca Raton, London, New York

Other Articles as assigned in the Student Reading List (available in Moodle)

### Communication Policy

All email communication must follow the following guidelines to ensure prompt and accurate responses:

- Responses will be provided to emails for which the email subject heading begins with "ENVS 6121"
- Prior to sending an email, please review the syllabus carefully. Answers that are contained in the syllabus may not be responded to.
- Responses will be provided within three business days. Please plan accordingly.
- For reasons of privacy and confidentiality, please email me from the email registered to your Moodle account.
- You are responsible for checking your email a may contact you through.

- Content related questions will be discussed in class, or on online discussion forums with the entire group.

### **Academic Honesty**

All York students are subject to policies regarding academic honesty as set out by the Senate of York University and by the Faculty of Environmental Studies (FES). Students are strongly encouraged to read the Senate Policy on Academic Honesty, a copy of which can be found on the York University web-site (<http://www.yorku.ca/secretariat/legislation/senate/acadhone.htm>). FES is committed to maintaining the highest standards of academic integrity. Please be advised that conduct that violates the ethical or legal standards of the University community may result in serious consequences. For more information, please contact the Director, Student and Academic Services and/or the FES Writing Program Coordinator.

### **Research Ethics**

Students who conduct a research study using human participants must submit the following for approval prior to the conduct of research:

1. three copies of a proposal outlining the purpose of the research and the methodology to be used
2. three copies of the Faculty of Environmental Studies Human Participants Research Protocol Form, and
3. three copies of the Written Informed Consent form or a script of Verbal Informed Consent (Verbal Informed consent is permissible only in extenuating circumstances, where written communication is not feasible).

This material will be reviewed by a Sub-committee of the Research and Awards Committee. Reviews will take up to 2 weeks from the date of submission. If the research is not approved prior to the conduct of the research, then the research will not have received research ethics clearance and will be deemed unacceptable for submission as a component of this course.

Information regarding the use of human participants in research studies may be found on the Faculty of Graduate Studies webpage <http://www.yorku.ca/grads/polc/ethics.htm>.

Students are advised that all human participants in the research must have either signed a written consent form or have provided oral consent for their participation in the research. Students also are advised that the consent forms must be retained by the Principal Investigator for two years following the completion of the research.

### **PLEASE NOTE:**

Students who feel that there are extenuating circumstances that may interfere with the successful completion of the course requirements are encouraged to discuss the matter with the Course Director as soon as possible. Students with physical, learning or other disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss this with the Course Director early in the term so that appropriate arrangements can be made.

August 8, 2014