

Division of Natural Science

<http://natsci.info.yorku.ca/>

Course Outline

NATS 1810 A, Energy
Winter, 2018

Mondays and Wednesdays, 11:30-2:30pm, Chemistry Building 121

Course Instructor and Contact Information

Jill Lazenby, Ph.D.

Assistant Lecturer, Department of Science and Technology Studies

Norman Bethune College Room 226A

Phone: 416-736-2100 ext. 20466 (no voicemail – leave message by email - see “**Communications**” below)

Email: jlazenby@yorku.ca (use your @mymail.yorku.ca account)

Drop-in office/phone drop-in hours Sept.-May (no appointment needed): Tuesdays 10:30-12

Other office/phone appointments: set up by email – see “**Communications**” below

Course website: [Moodle - https://moodle.yorku.ca](https://moodle.yorku.ca)

Communications:

Instructor announcements: **Moodle – Course Announcements forum**

- Instructor postings only – do not post responses or questions
- Check often

General course questions: **Moodle – Student Q and A forum**

- Response time = normally within 24 hours
- Instructor, students and TAs can view and respond to all posts

Personal issues and concerns: Email jlazenby@yorku.ca

Email Policies:

- Use only your **@my.yorku.ca** account (email with other accounts may be filtered)
- Allow **up to 4 business days** for a response (send again if you don't get a reply)
- Use for personal issues, (ex. Illness or personal situation, requests for in-person help, altexams issues, etc.) – use Moodle Q and A forum for general course questions
- Provide a descriptive subject header (ex. “Missing midterm due to illness” not “Urgent!!” or “Hey there”.)
- Be polite and professional
- Write in clear, complete sentences without using slang, or text lingo
- Sign off with your **first and last name**
- Add a **phone number** where you can be reached (optional but preferred – sometimes it is more efficient to discuss your issue by phone)

Expanded Course Description

This course will look at some of the basic principles behind energy, the technology we use to generate it, and impacts of human energy use, such as pollution and global warming. We consider both common current energy sources such as fossil fuels, and alternative energy sources, such as solar and wind power. We will also consider the sustainable use of energy. Current events that are relevant to the course will be explored.

Course Learning Outcomes

Upon successful completion of this course students should be able to:

- Demonstrate an understanding of the relationship between foundational concepts like force, work, energy and power.
- Consider the dimensions of personal-use energy needs
- Consider the dimensions of local and global energy needs
- Name and describe some main forms of energy production and consumption to meet human needs, along with some associated technologies.
- Discuss the difference between renewable and non-renewable energy sources
- Identify some of the environmental and social impacts of different energy production and consumption patterns
- Define “sustainability” and consider energy production and consumption in the context of sustainable energy use.
- Discuss recent news items regarding local and global energy production and consumption

Evaluation

- iClicker in-class participation questions (every class, drop lowest 2): 5%
- Online activities (check Moodle and Lecture Schedule for dates): 15% (drop lowest 1 of 6)
- Test 1 (Feb. 5 (Group A) or 7(Group B)) – 35 multiple choice + 3 short answer: 15%
- Test 2 (Mar. 12 (Group B) or 14 (Group A) – same format:15%
- Final Exam (April winter exam period) – 35 multiple choice + 3 short answer: 25%
- Project 1 (Sunday Feb. 18):10%
- Project 2 (Sunday Mar. 25): 15%

All tests must be written to receive a course grade.

Statement on grades and extra credit assignments:

In order to be fair and consistent to the entire class, individual grades are not negotiable and “extra credit” assignments are not provided at any point during or after the course. Please contact the instructor about a grade only if there is a clear error (calculation, clerical, etc.) **within two weeks** of the grade being made available to you.

Course Materials

Required eBook:

Moaveni, Saeed. (2018). *Energy, Environment, and Sustainability* (1st ed.). Boston: Cengage Learning.

- **Either** book+eBook access package **OR** eBook access only (A paper copy of the text is not necessary, but some may prefer it)
- Purchase through the York Bookstore:
https://www.bookstore.yorku.ca/buy_textbooks.asp? . If you purchase only the online access from the Bookstore website, you will receive an access code through email once your payment has been processed. Access codes can also be purchased by picking up a flier in the Bookstore

Required Classroom Polling System – for Participation grade (5%)

iClicker

- Use your laptop or smartphone for this activity – let Jill Lazenby know if you don't own either technology.
- Download app – see instructions here: <http://lts.info.yorku.ca/polling-student/>

Additional supplementary eResources available on Moodle course page

Laboratory/Tutorial

None

Course Content and Format

- 6 hours per week of in-class lecture and participation activities, including iClicker questions
- Online exercises in some weeks – see lecture schedule

Math Content

Basic concepts as covered in Ontario Grade 10 Math.

Course Policies

1. Conduct in Class and Tests

Students are expected to behave in a courteous and professional manner in all course activities, and to help create an environment that promotes academic integrity. Here are some guidelines for conduct:

- Computers and phones are to be used for course activities only – **leave the lecture hall if you need to conduct other business on your phone or computer.**
- **No earphones** under any circumstances
- **Cell phones** must be turned off during the midterm and exam and placed in your closed bag on the floor, or on the floor under your seat. If you are found with a cell phone on your person at any time during a test, the matter will be referred to the Division of Natural Sciences.
- There are **no aids** for the midterm and exam. You may only have a pencil, pen, student ID and drink on your workspace. If you require a translation dictionary you must clear this with

the course director one week before the test – no electronic devices are allowed, but a paper dictionary may be approved if given to the course director for inspection **one week in advance**.

2. Communication in the course

Please use class time, and also the designated Q&A Moodle forum, to ask questions about the course. You are encouraged to respond to other students' forum questions if you know the answer. If you have a question of a personal nature, please contact the course director by email or phone (see p. 1).

Instructor announcements will be posted on the Course Announcements forum. These announcements will go to the email associated with your Moodle account. It is recommended that you use your @my.yorku.ca email account and ensure that this is associated with your Moodle Profile by clicking on your name at top right when you are logged in to Moodle. Please also upload a recent picture to your profile.

3. Email Policy and Office Hours

My email address is jlazenby@yorku.ca. Use your @my.yorku.ca account for all course business (emails from other accounts may be filtered). All emails must contain a descriptive subject heading (example: "Scheduling a meeting for next week") and a brief grammatically-correct memo in the body. Always sign your emails with your first and last name, your course number, and if possible, a phone number where you can be reached. (In some cases it may be quicker to speak by phone). Allow 4 days for a response, and resend the email after 4 days (sometimes emails get lost or buried).

Office hours are drop-in (Tuesdays 10:30-12), and no appointment is needed. You may also schedule a face-to-face or phone meeting outside office hours – please arrange this a week in advance where possible.

4. Academic Integrity

Academic integrity is taken very seriously in all York courses. **All work for this course must be the original work of each student.** In your written work ensure that you give full credit for text and ideas that are not your own. Direct quotations must be in quotation marks with accurate citations. Paraphrased ideas must be cited. Consult with Jill Lazenby if you have any questions.

Suspected breaches of academic honesty of any kind will be referred to the Associate Dean of Students in the Faculty of Science. The **York Academic Honesty Policy** can be reviewed at <http://www.yorku.ca/secretariat/policies/document.php?document=69>

Each student must complete the **Academic Integrity Tutorial and Quiz**, and must get 100% (you may take the quiz multiple times). More information will be given in class.

Keep all rough notes, drafts and completed project files until after you have received a final grade for the course.

5. Assignment Submission and Deadlines

Projects #1 and #2 are due by 11:55pm the day of the deadline (Sunday), and are submitted electronically through Moodle in **PDF format**. Further instructions and assignment submission links will appear on Moodle.

iClicker participation questions must be completed in the lecture hall during class time. There are no makeups for this component of the course.

6. Late Assignments, Projects and Missed Tests

Students are expected to take responsibility for the deadlines in the course. Complete work ahead of deadlines and see Jill Lazenby well before a deadline if you need some guidance.

Important note: Computer crashes, internet problems, equipment failures, business trips, employment schedules, volunteer opportunities, vacations, family trips, job interviews, etc. are **not** considered valid reasons to miss course deadlines, and **no extensions or makeup tests** will be granted for these. Arrange to complete work early if you have a personal conflict, back up your work frequently, and make use of on-campus facilities if you are encountering personal computer or internet problems.

Late assignments: Late online assignments and in-class participation exercises will not be accepted, and there are no makeups for any reason for these components of the course. The lowest tutorial assignment grade will be automatically dropped from your final grade calculation.

Late Projects: 10 marks per day will be deducted from your final percentage grade of late Project #1 and Project #2 submissions, beginning at 12:00am, and including weekends, unless documentation is provided verifying an unavoidable medical situation or personal emergency (see below). If you have trouble uploading to Moodle by the deadline, you must email your completed project to jlazenby@yorku.ca and try again later – the time of completion will be the time the emailed project was received.

Missed Midterm or Exam: You must notify the course director within 48 hours of a missed midterm or exam, and supply documentation within one week. Your case will be considered and you will receive a reply within one week.

If you miss a test, **one** make up test opportunity will be provided during either the fall midterm or exam periods for students with **valid documentation** of a medical issue (APS form) or personal emergency. Failure to attend the scheduled makeup midterm will result in 0 for the test. If you miss a final exam and have valid documentation, one opportunity will be provided during the exam period, or if you qualify for Deferred Standing (see below) as soon as possible after the exam period.

If you are ill you must inform Jill Lazenby immediately (within 48 hours of a test or deadline) and ask your physician to fill out an **Attending Physician Statement** (see Moodle) before or within 24 hours of the missed deadline (found on Moodle in the Info Zone). A copy of this must be emailed or handed in to Jill Lazenby for consideration as soon as possible.

If you encounter a Moodle-related technical problem with uploading Project #1 or Project #2 by the deadline, you must **email** your completed project immediately to Jill Lazenby. Try to upload the assignment again later. **The date and time on your email will be considered the date and time of completion.**

If you have a personal emergency you must inform Jill Lazenby immediately and collect supporting professional documentation to verify the reason for missing a deadline (ex. Funeral notice with any travel documentation, letter from a psychotherapist or counsellor or chaplain). Your case will be considered after documentation is received. Please contact Jill Lazenby with any questions about appropriate documentation.

If your situation is unusual, or not covered above please email Jill Lazenby and book a phone or face-to-face meeting to discuss the issue.

Deferred Standing and Academic Petitions: If you have a documented personal emergency or medical issue that require submission of work after the last day of classes (April 5, 2017), you must obtain Deferred Standing in the course (<http://myacademicrecord.students.yorku.ca/deferred-standing>). Failure to meet the deferred deadline(s) will result in the need to submit an academic petition to qualify for further accommodations (<http://myacademicrecord.students.yorku.ca/academic-petitions>).

7. Personal Student Performance and Getting Help

Students are responsible for their performance in the course, but are encouraged to make use of the Q&A forum on Moodle, and also to seek guidance from the Course Director, and York's services, as needed. To discuss any personal concerns about performance in NATS 1565, students can drop by 226A Bethune or call Jill Lazenby during office hours, or can request a phone, or in-person office appointment outside office hours (email for an appointment). Students can also review tests through an in-person appointment.

The Division of Natural Science also offers NATSAid, a peer support service staffed by student volunteers who successfully completed NATS courses in previous terms. See the Moodle page for more information. Students are also encouraged to make use of the Learning Skills Centre, Writing Centres, the Steacie Library, Personal Counselling, and other services available on campus to support student learning and well-being. Links to some helpful services are available on the course Moodle page in the Info Zone.

8. Grades

Course staff will calculate grades according to the criteria provided with the assignment, and the weighting in "Evaluation" on p. 2 above. They will not "bump up" or alter the calculation of grades for any reason other than a demonstrable error. They will not provide additional assignments or work in the course, and there are no resubmissions.

Tests are not returned, but students may arrange to meet with the course director to view their graded test in person.

If clarification is required for a grade on Project #1 or Project #2, request this first from the grader, by email – clearly refer to the criteria on the relevant rubric (attached to your assignment in Moodle). If this does not resolve the matter, a student may request clarification or a reappraisal from the course director. In the case of a reappraisal, a clean copy will be marked, and the student's grade will be that awarded by the course director, whether it is higher, lower or the same. If a student still feels the concern has not been addressed following the regrading, s/he can approach the Division of Natural Science in 218 Bethune to request that the work be regraded by another faculty member. Once again, the final grade will be the grade awarded by the other faculty member.

9. Special Circumstances: Students who feel that there are extenuating circumstances that may interfere with the successful completion of any course requirements are encouraged to discuss the matter with Jill Lazenby early in the term. Students with physical, learning, or psychiatric disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss this with Jill Lazenby in September so that appropriate arrangements can be made.

9. Questions and Concerns: Contact Jill Lazenby in person, during drop-in office hours, or by email at jlazenby@yorku.ca.

Copyright and Intellectual Property

In order to protect copyright and intellectual property you MAY NOT:

- upload any course content to any website
- record lectures for non-personal use
- photograph class activities – all materials are provided for personal download and use are found on Moodle

Course contents include any activities, documents or files connected to this course, including lecture slides, recordings, images, tests, quiz questions, in class participation exercises, and assignments.

University Policies

Important Sessional Dates – Winter term

Winter term classes start: Jan. 4

Last date to announce components of final grades: Jan. 19

Reading Days (no classes, University open): Feb. 17-23

Last date to submit Winter term work: Apr. 5

Winter classes end: Apr. 6

Winter Study Days (no classes; University open): Apr. 5, 7-8

Winter examinations: Apr. 9-23

Academic Honesty and Integrity

Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation. Similarly, academic honesty requires that persons do not cheat (attempt to gain an improper advantage in an academic evaluation), nor attempt or actually alter, suppress, falsify or fabricate any research data or results, official academic record, application or document. Finally, academic honesty requires that persons do not aid or abet others to commit an offence of academic dishonesty, including intentional acts to disrupt academic activities.

Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Academic Honesty and electronic devices during assessments (e.g. exams)

- Internet capable and personal storage devices of all kinds must be turned off, including vibrate. These and any other unauthorized material must be placed under the student's chair and should not be accessed at any point during the exam. Failure to comply with directive may be considered a break of academic honesty.
- See <http://registrar.yorku.ca/exams/tipsheet>

Please familiarize yourself with the full Senate Policy on Academic Honesty, found at <http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

Please also familiarize yourself with the SPARK Academic Honesty tutorial found at <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

Academic Accommodation for Students with Disabilities

York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.

Please familiarize yourself with the full Senate Policy on Academic Accommodations for Students with Disabilities, found at <http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/>

Note: Students should submit accommodation letters from Counseling and Disability Services (CDS) to the course instructor within the first two weeks of the course or as soon as issued.

Counseling and Disability Services - <http://cds.info.yorku.ca/>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

Note: A student registered with CDS, and choosing to write with Alternate Exams, is responsible for making the appropriate writing arrangements within the timeframes outlined by Alternate Exams.

Alternate Exams - <http://altexams.students.yorku.ca/>

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents.

<https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/15/wo/kmHGekTpzKLX6XYKBXYc8M/0.3.4.62.0>

Note: Students who will have an academic conflict as a result of a religious observance, at any point in the term, should make the instructor aware of such at least three weeks prior to the conflict.

For conflicts occurring during an official examination period, please complete the Examination Accommodation Form available at http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf and submit to your instructor at least three weeks prior to the final exam.

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. A statement of the policy and procedures regarding disruptive and/or harassing behaviour by students in academic situations is available on the website of the University Secretariat (<http://secretariat.info.yorku.ca/>).

Division of Natural Science Resources

NATS-AID

Free peer tutoring for students enrolled in Natural Science Courses.

See <http://natsci.info.yorku.ca/nats-aid/>

M-AID in NATS (Math Aid)

Free math help for students enrolled in Natural Science Courses (TA tutors)

See <http://natsci.info.yorku.ca/m-aid-in-nats/>

Other Resources

Learning Commons

The Learning Commons brings together key supports for your learning: writing, research, learning skills and career services. <http://www.library.yorku.ca/cms/learning-commons/>

goSAFE

goSAFE is a complimentary service provided to the York Community. At the Keele campus, goSAFE has two routes: North Route & South Route which will safely transport community members by vehicle from one specified hub to another on campus. goSAFE operates seven days a week, all year round, including University closures (with the exception at Glendon during the Christmas holiday closure).

Call the goSAFE office at 416-736-5454 or extension 55454 during hours of operation. Please give your name, location and destination. <http://www.yorku.ca/goSAFE/>

Mental Health and Wellness at York University

Outlines a variety of resources available to support mental health and wellness
<http://mhw.info.yorku.ca/resources/resources-at-york/students/>

Good2Talk

Post-Secondary Student 24 hour Helpline
<http://www.good2talk.ca/> 1-866-925-5454