

Economics 329(L01) Electricity Markets

Instructor:	Matt Ayres	Lecture Location:	ST 131
Phone:	403 220 6550	Lecture Days/Time:	MW 17:00-18:15
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Office:	SS 447		
Office Hours:	After class	Fall 2015	

Textbook(s): None required. Most books on electricity economics are quite advanced. For those wanting to have a relevant text book I would recommend:

Stoft, Steven (2002), *Power System Economics*

Book(s) on Reserve:

Harris, Chris (2006), *Electricity Markets: Pricing Structures and Economics*

Stoft, Steven (2002), *Power System Economics*

Hunt, Sally (2002), *Making competition work in electricity*

Sweeney, James (2002), *The California electricity crisis*

Desire2Learn: This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

Course Outline:

Electricity has some unique characteristics that pose unique economic problems. Some jurisdictions have sought to use markets (deregulation) to tackle these problems rather than central planning (regulation), other jurisdictions have not. Even within market based systems there are important differences in structure and market rules. Not all of the drivers are economic, some are technical, some historical and some political. The interplay between all of these factors makes for complex, controversial and, often, poorly understood.

To make the course as accessible as possible the focus will be on using the Alberta Electricity Market as a case study, comparing and contrasting this to the approaches used elsewhere. Where possible we will avoid the textbook in preference for primary sources (industry and government publications and studies).

The course will begin with a basic introduction to electricity, history of markets and regulation and quickly turn to look at the key questions:

- Do markets result in the best prices for production and consumption
- Do markets get the best level of investment?

In doing so we'll examine economic efficiency, fixed and marginal costs and how market power can influence market outcomes. Having answered those questions the course will provide a brief introduction to other areas of electricity economics:

- Can markets be reliable (enough)?
- Can markets plan transmission?
- Can markets deal with congestion?
- Can markets deal with environmental concerns?
- Are there special issues with retail electricity markets?

The fall of 2015 looks to be an interesting time for discussions in Alberta on climate change during the course we will try to follow the emerging debate as it relates to electric generation.

About the instructor:

Matt is an Adjunct Assistant Professor at the university, who works full time as Deputy Administrator and Chief Economist at the Alberta Market Surveillance Administrator (an agency that monitors the Alberta electricity market for breaches in rules and anti-competitive behavior). Mayres@ucalgary.ca should be used. . Please do not use alternate contact numbers / email. Students are encouraged to ask questions during (or at the end) of class and make use of the forums on Desire2Learn.

Grade Determination and Final Examination Details:

Assignment (20%)	Monday, Oct. 5, 2015
Midterm Exam (30%)	Wednesday, Nov. 4, 2015
Final Examination (50%)	TBA

Tests and final exams are marked on a numerical (percentage) basis, then converted to letter grades. The course grade is then calculated using the weights indicated above. The following letter grade equivalences will apply:

A+	95 – 100	B	73 – 76	C-	60 – 62
A	85 – 94	B-	70 – 72	D+	56 – 59
A-	80 – 84	C+	67 – 69	D	50 – 55
B+	77 – 79	C	63 – 66	F	0 – 49

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

Non-programmable calculators WILL be allowed during the writing of tests or final examinations.

There will be a Registrar scheduled final examination, held in a classroom, lasting 2 hours.

Tests and exams WILL NOT involve multiple choice questions.

Notes:

- All students must comply with the regulations published in the University Calendar concerning "Intellectual Honesty," "Examinations," etc.

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor *within fifteen days* of the work being returned to the class.
- 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 403-220-8237. 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.
- Students who are unable to write the midterm because of an illness, family emergency or religious observance will have the midterm weight shifted to the final examination. Documentation MUST be provided.

Students' Union Vice-President Academic:

Stephan Guscott
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 E-mail [suvpaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)

Students' Union Faculty Representative (Arts)

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Society of Undergraduates in Economics (S.U.E.):

www.ucalgary.ca/sue

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career partnerships with the Career Centre through hosting industry nights and information sessions, recognizing achievements in teaching, and organizing social events for members. They invite you to join by contacting sue@ucalgary.ca.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The Arts Students' Centre is your information resource for everything in Arts! Drop in at SS102, call them at 403-220-3580 or email them at artsads@ucalgary.ca. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Library Block.
- Online writing resources are available at <http://www.ucalgary.ca/ssc/resources/writing-support>
 Safewalk/Campus Security: 403 220 5333
 Emergency Assembly Point: Professional Faculties Food Court