

ATLAS Pilot Course: ACT475 - Insurance Products, Market, and Regulation with AXIS (Winter 2017)

Instructor:

Professor V. Zhang

Email: vicki@utstat.toronto.edu

Office Hours: Thursdays, 1-3pm

Office: SS 6027A

Seminars: Tuesdays, 4-7pm

Seminar location: SS Computing lab (SS 561), and sometimes the attached seminar/conference room

Teaching Assistants:

Bill (Xuancheng) Huang (xuancheng.huang@mail.utoronto.ca)

Lab hours for you to practice or complete take-home assignments:

Reserved for ACT475: Fridays 3-6pm (January 13th to March 31st)

TA will be holding lab office hour on six of those Fridays between 3pm and 5pm (exact dates will be confirmed on portal).

You may also use the lab as long as it is not reserved for other courses. Check SS 561 availability online: <http://lab.chass.utoronto.ca/ss.php>

Coursebook:

Zhang, V. & Ewener, J. (2014). *Uncalculated Risks: The transformation of insurance, the erosion of regulation, and the economic and social consequences*. Toronto: Canadian Scholar Press

Available for purchase at UofT bookstore or on Amazon.ca.

On course reserve at Robarts Library.

Student Evaluation:

1- Five 1-page (single spaced) reading comments/reflections (30%) – **Due Mondays 5pm**

The class will be divided into 2 groups (**Group A: Last name A to L, and Group B: Last name M to Z**) for purposes of the comments (see week-to-week topics below). The comments are an opportunity to reflect upon the readings in a way that will provide a stimulus and focus for class discussion. You should not summarize the readings. Instead you should take a position or sketch an argument or indicate what you find interesting or puzzling or problematic about some part of the readings, which can be further discussed during the seminar. Every week I will provide a few topics you may want to reflect upon as you read. However, your comments need not cover every topic. You need not try to work out a detailed argument and indeed will not have the space to do so.

You must post your comments on Blackboard by **5:00 pm on the Mondays before the class in which the material is to be discussed. Late papers will not be accepted.** I will make all papers available from that Saturday evening and you are encouraged to scan all your colleagues' posted paper before coming to the seminar, so you can form an opinion or counterargument for the posted comments. You are welcome to research and consult other sources to help form your opinions but

please quote your source.

2- Class participation, discussions/debates (5%)

Active and informed participation in class discussions: You will be expected to display familiarity with the assigned readings.

3- In-class pop-up quizzes (15%)

4- Five take-home AXIS assignments (30%) – **Due noon, on the Tuesday one week after the Tuesday lecture when the assignment was given. Assignments will be given shortly after Tuesday lectures. Late submissions will not be accepted.**

5- Final paper (20%): 4-6 pages (single spaced), **Due April 10th 6pm.** Submit electronically in word format.

Elaborate on a topic of your choice. The topic should be closely related to one of the seminar topics. You can reflect on perspectives of multiple stakeholders but you should emphasize your personal perspective. Any tentative proposal for a future market and regulatory system is welcome. You can include any changes in your attitude and opinions on the subject matter before and after the course, concrete steps you plan to go forward, and further questions you would like to explore in your future studies. **Late submissions will not be accepted.**

Schedule of Topics:

1) January 10: Welcome and Introduction

- Some questions to discuss:
 - Personal stories related to the insurance industry – what do you know about the industry/product/market/regulation? Any experience to share as a consumer/policyholder, the child of someone working in the industry, an intern working for the industry, etc?
 - If you have no direct contact with the industry, what do you think is the role of the industry in our economy and society?
 - How do you imagine the relationship between the industry and its regulators – “is vs. ought to be”?
- AXIS:
 - Introduction, general structure of AXIS
 - Students log-ins

2) January 17: Chapter 1. **Group A**

- A brief and general history of financial deregulation (1970s-80s)
- AXIS: Whole life policy modeling Part I (Regular Life Module).

3) January 24: Chapter 2. **Group B**

- Implications of new economic environment and financial deregulation on the insurance industry and the industry’s responses
- AXIS: Whole life policy modeling Part II (Regular Life Module).
- AXIS take-home assignment #1

- 4) January 31: Chapter 3. **Group A**
 - Insurance regulators' reactions to the industry changes in product offering and asset investments
 - AXIS: Understanding AXIS Reports
 - AXIS take-home assignment #2
- 5) February 7: Chapters 4 & 6. **Group B**
 - Enterprise risk management (ERM) incentives and disincentives
 - ERM technique 1: Reinsurance and "shadow (re)insurance"
 - AXIS: Universal life policy modeling Part I (Universal Life Module).
 - AXIS take-home assignment #3
- 6) February 14: Chapters 8. **Group A**
 - Common use of derivatives by the insurance industry, derivatives regulation
 - AXIS: Universal life policy modeling Part II (Universal Life Module).
 - AXIS take-home assignment #4
- 7) February 21: Reading week. No class, office hour, or TA lab office hour.
- 8) February 28: Chapters 7. **No Comments this week.**
 - ERM technique 2: Derivative hedging
 - AXIS: Introduction to Annuities Module.
- 9) March 7: Chapter 11. **Group B**
 - Modeling challenges in insurance industry: Market risk modeling of variable products
 - AXIS: Variable Annuity modeling (Annuities Module).
 - AXIS take-home assignment #5

March 13 – Last day to drop courses without academic penalties

- 10) March 14: Chapter 9. **Group A**
 - ERM technique 3: Insurance Securitization
 - AXIS: Advanced topic 1 – Statutory and GAAP Reserves Methodologies in AXIS
- 11) March 21: Chapters 14 & 15 & 16. **Group B**
 - Introduction on insurance regulation now and then
 - The current "rules-based" model and "principles-based" model; implication of the regulatory paradigm shift
 - AXIS: Advanced topic 2 – Hedging in AXIS (tentative)
- 12) March 28: Chapters 17 & 18. **Group A**
 - Two case studies on challenges insurance regulators face in the process of regulatory paradigm shift: (1) asset reporting standard ("look-through reporting") (2) liability valuation
 - AXIS: Advanced topic 3 – Solvency II in AXIS (tentative)
- 13) April 4: Chapters 21 & 22. **Group B**

- Two categories of limitations of technocrat-centric self-regulation
- Tentative proposals of change – sectoral and geographic regulation convergence? Re-establishing the sectoral “Chinese Wall”?
- Private vs. public provision of retirement protection
- Exit discussions
- AXIS: wrap-up