

 **ACTUARIAL MATHEMATICS 490-3**  
**SELECTED TOPICS IN ACTUARIAL SCIENCE:**  
**A SURVEY OF PROPERTY AND CASUALTY ACTUARIAL TOPICS**

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**Summer 2001**  
**EVENING COURSE**

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**Instructor: H. PYLMAN**

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**Prerequisite:**

ACMA 310, Corequisite: ACMA 320, or permission of the Department.

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**Textbook:**

*Foundations of Casualty Actuarial Science* (3rd ed) by CAS, Mad River Books.

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**Calendar Description:**

This course is intended to give the flavour of P & C actual topics not available in other SFU courses. The student will also be given an opportunity to develop some skills that will help them in a business environment.

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**Outline:**

1. Ratemaking: Ratemaking Principles, Relativity structures, Indicated Rate Level Change.
  2. Insurance Accounting; Prior Year Adjustments, Deferred Policy Acquisition Costs.
  3. Reinsurance.
  4. Loss Reserving; Business Basis of Development, Triangular Data Structure, Traditional Chain-Ladder Loss Development, Bornhueter-Ferguson Methodology, Credibility-based loss reserving.
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**Grading**

Assignments - 10%  
2-Presentations - 15% each  
Midterm - 25%  
Final - 35%

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*Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the posting of marks. Please pay careful attention to the options discussed in class at the beginning of the semester.*

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*Revised March 2001 by math\_www@math.sfu.ca*