

# P&C ACTUARIAL FOUNDATIONS

## LEARNING THE INS & OUTS OF BASIC PRICING & RESERVING

Join expert instructors in learning the key concepts and techniques underlying basic P&C pricing and reserving **at your own pace**, creating a strong foundation necessary for those entering the actuarial career path or assuming actuarial responsibilities.

### TARGET AUDIENCE

- Entry-level actuaries
- Data scientists
- College students
- Insurance professionals needing deeper understanding of actuarial work products

### SAMPLE TOPICS

- Introduction to insurance
- Overall ratemaking
- Risk segmentation
- Product management
- Reserving & financial statements
- **Full syllabus** attached

### DELIVERY METHOD

- 35 on-demand streaming episodes, including concept checks and section quizzes
- Hosted in an easy-to-use learning management system
- Per student or enterprise pricing available

## MEET THE INSTRUCTORS



### **Michael McPhail, Managing Member, Casual Fellow**

Michael is a Fellow of the Casualty Actuarial Society (FCAS) with over 14 years of pricing and reserving experience. He has held executive/senior-level positions at a top 10 U.S. insurer and a global consulting firm. Michael owns Casual Fellow, which has trained more than 1,000 actuarial candidates through both online and live seminars. Michael also taught Mathematical Interest Theory at Trinity University in San Antonio, TX.



### **Geoff Werner, Managing Member, Werner Advisory**

Geoff is an FCAS with over 30 years of experience focused on insurance pricing and product innovation. He has held executive-level positions at a top 10 U.S. insurer, two global consulting firms and a leading telematics service provider. Geoff co-authored the textbook the CAS uses to teach pricing to all actuarial candidates. He has extensive experience training clients on actuarial topics, predictive modeling software, telematics, etc.

## RELATED PRODUCTS

**P&C Insurance Foundations:** A condensed course covering similar topics for insurance professionals who want to understand the concepts but won't be responsible for doing the analysis. Intended audience includes product managers, executives, marketing, etc. Delivered **live in-person or remotely**.

**Rising Fellow CAS Exam 5 Online Course:** An intense preparatory course for actuarial candidates sitting for CAS Exam 5. **Delivered online** with on-demand videos and downloadable study aids. More details can be found at [www.risingfellow.com](http://www.risingfellow.com).

**For more information or to enroll, contact us at:**

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# P&C INSURANCE ACTUARIAL FOUNDATIONS - SYLLABUS

## INSURANCE FOUNDATIONS

Episodes		What you will learn
1	Insurance Basics	Ownership structures, distribution channels, policy types, operational functions
2	Key Terms	Overview of key insurance terms
3	Key Metrics	Key performance metrics and the Fundamental Insurance Equation
4	Capital Modeling/Reinsurance	Roles of capital modeling and reinsurance
5	Rating Manual	Components of a rating manual and calculating an insurance premium

## OVERALL RATEMAKING

Episodes		What you will learn
6	Intro to Ratemaking	Outline how to determine an "actuarially sound rate"
7	Ratemaking Data	Types of data used by actuaries and different aggregations (e.g., AY, CY, PY, RY)
8	Premium at Present Rates	Approaches to adjust historical premium to reflect subsequent rate changes
9	Premium Trend	Methods to reflect changes in historical average premium due to distributional shifts
10	Extraordinary Losses	Accounting for extraordinary losses, including modeled catastrophes
11	Loss Development	Adjusting historical losses to ultimate levels using the loss development method
12	Loss Trend	Projecting historical losses to reflect changes in the frequency or severity of claims
13	Benefit Level Changes	Adjusting historical losses to account for changes in benefits
14	Loss Adjustment Expenses	Including allocated and unallocated loss adjustment expenses
15	UW Expenses & Profit	Determining UW profit and fixed/variable expense provisions
16	Overall Indications	Calculating indications using loss ratio and pure premium approaches
17	Credibility	Quantifying indication reliability and incorporating complements of credibility

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### RISK SEGMENTATION

Episodes		What you will learn
18	Risk segmentation Intro	How risk segmentation (or lack thereof) drives favorable (or adverse) selection
19	Univariate Approaches	Mechanics and limitations of traditional loss ratio and pure premium approaches
20	Predictive Modeling	Using GLMs and decision trees for more accurate risk segmentation
21	Special Analysis	Other techniques to price territorial rate, deductibles, and increased limits factors

### PRODUCT MANAGEMENT

Episodes		What you will learn
22	Portfolio Management	Managing a portfolio holistically to achieve competing profit and market goals
23	Action Levers	Use Claims, UW, Product, Marketing/Sales or Pricing actions to achieve overall profitability and marketing goals
24	Pricing Actions Advanced	Scenario testing or price optimization for better decision-making
25	Implementation	Calculating proposed rates, relativities, and fees; incorporating rate capping
26	Regulation	Role of rate regulation, including practical considerations for handling effectively

### FINANCIAL REPORTING & RESERVING

Episodes		What you will learn
27	Financial Statements	Fundamentals of an insurer's balance sheet & income statement; components of a reserve
28	Loss Development Method	Mechanics underlying the loss development method
29	B/F Reserving Method	Mechanics underlying the Bornhuetter/Ferguson method
30	Cape Cod Method	Mechanics underlying the Cape Cod method
31	Frequency/Severity Method	Mechanics underlying the frequency/severity method
32	Claims & Reserving Interaction	Claims department changes and the impact on reserving
33	Monitoring Reserve Estimates	Actual vs. expected analysis
34	Loss Variability	Estimating the variability in reserves
35	Financial Planning	Planning out-year underwriting profit; interaction between pricing & reserving

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