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Fran Sarrel  
General Officer, Syllabus and Examination Working Group

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**TO:** CAS Candidates and Educators  
**FROM:** Fran Sarrel, General Officer, Syllabus and Examination Working Group  
**DATE:** April 6, 2023  
**RE:** Changes for the October/November 2023 CAS Source Materials

The CAS has approved the following reference changes for the October/November 2023 syllabi and Content Outlines. Other changes that may be made, but which are not addressed here, include modifications to Learning Objectives/Domains & Tasks and Knowledge Statements, as well as additional edition changes to current citations. Those changes, if any, will be included in the individual exam's October/November 2023 syllabus or Content Outline.

### **Exams MAS-I, MAS-II and Exam 5**

With the introduction of the [Admissions Transformation Plan](#), the new Content Outlines (formally known as syllabi) for Exams MAS-I, MAS-II and Exam 5 will be the basis for the October/November 2023 exam administrations. The following changes have been made to each of these Content Outline's references and are available on the CAS website.

### **Exams 6U/C/I and 8**

The October/November 2023 syllabi will be posted in May 2023 and the CAS Study Kits will be available July 2023. Candidates should be guided by the **final** syllabi/Content Outlines for the Learning Objectives/Domains & Tasks, Knowledge Statements, and Text References for each examination and to not rely solely on the advanced notice provided in this memorandum. Exams 6U, 6C, 6I and 8 will all continue to use the syllabus format for the October/November 2023 administration.

### **Exam MAS-I**

- **Delete:**
  - Cowpewart, P. and Metcalfe, A., *Introductory Time Series with R*, Springer, 2009.



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- **Modify:**

- Dobson, A., and Barnett, A., An Introduction to Generalized Linear Models, 4th edition, Chapman and Hall/CRC Press, 2018 is updated from the 3rd Edition or 4th Edition, 2008/2018.
- Hogg, R.V., McKean, J.W., and Craig, A.T., Introduction to Mathematical Statistics, 8th edition, Prentice Hall, 2018 is updated from the 7th Edition, 2013.
- James, G., et al., An Introduction to Statistical Learning, with Application in R, 2nd edition, Springer, 2021 is updated from the 1st Edition, 2013, Corr. 8th printing, 2017.

### Exam MAS-II

- **Delete:**

- Ford, P., “MCMC Algorithms,” CAS Study Note, Version 0.8, November 2019.
- McElreath, R., Statistical Rethinking: A Bayesian Course with Examples in R and Stan, 2nd edition, CRC Press, March 2020.

- **Modify:**

- James, G., et al., An Introduction to Statistical Learning, with Application in R, 2nd edition, Springer, 2021 is updated from the 1st Edition, 2013, Corr. 8th printing, 2017.
- West, B. T.; Welsh, K. B.; and Galecki, A. T., Linear Mixed Models: A Practical Guide Using Statistical Software, 3rd Edition, CRC Press, 2022 is updated from the 2nd Edition, 2015.

- **Add:**

- Cowpertwait, P., and Metcalfe, A., Introductory Time Series with R, Springer, 2009.
- Goldburd, M., et al., “Generalized Linear Models for Insurance Rating,” CAS Monograph #5, 2nd edition, 2020.

### Exam 5 – No changes to readings

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## **Exam 6-Canada**

The Canadian Institute of Actuaries advises us of changes to the syllabus for their nation-specific exam. The planned changes are as follows.

- **Delete:**

- Canadian Institute of Actuaries, “Educational Note: Application of IFRS 17 Insurance Contracts,” October 2021, Introduction and Chapters 1, 2, 5, 6, 7, and 9.
- Canadian Institute of Actuaries, “Educational Note: Consideration of Future Income Taxes in the Valuation of Policy Liabilities,” July 2005.
- Insurance Bureau of Canada, “Options for Managing Flood Costs of Canada’s Highest Risk Residential Properties,” June 2019, pp. 1-36.
- Insurance Bureau of Canada, “The financial management of flood risk,” 2015.

- **Modify:**

Update the following papers to more recent editions:

- Understanding BCAR For Canadian Property/Casualty Insurers,” August 12, 2022
- Canadian Council of Insurance Regulators, Final 2023 IFRS 17 P&C Insurance Return, Instructions and Forms.
  - III – Definitions, 2022-10
  - IV - Detailed Instructions, 2022-12
- Canadian Institute of Actuaries
  - “Educational Note: Assessing Eligibility for the Premium Allocation Approach Under IFRS 17 for Property & Casualty and Life & Health Insurance Contracts,” June 2022.
  - “Educational Note: IFRS 17 – Actuarial Considerations Related to Liability for Remaining Coverage in P&C Insurance Contracts,” June 2022.



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- “Educational Note: IFRS 17 – Actuarial Considerations Related to Reinsurance Contracts Issued and Held,” September 2022.
  - “Educational Note: IFRS 17 Discount Rates and Cash Flow Considerations for Property and Casualty Insurance Contracts,” November 2022.
  - “Educational Note: 2022 Guidance to the Appointed Actuary for Property and Casualty Insurers,” September 2022.
  - “Educational Note: Financial Condition Testing,” January 2023.
  - “Educational Note: IFRS 17 Risk Adjustment for Non-Financial Risk for Property and Casualty Insurance Contracts,” June 2022. (Candidates are responsible for the Excel illustrations attached to the Educational Note).
  - In KPMG, “Research Report – Best Practices for Actuarial Involvement in the Regulatory Oversight of Property and Casualty Insurance Rates,” December 2012, pp. 21-31.
    - Note that Alberta has been added to the excluded simplified guidelines (along with B.C. and Ontario).
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- **Add:**
    - Canadian Institute of Actuaries, “Comparison of IFRS 17 to Current CIA Standards of Practice” June 2022, excluding 3.2, 5.3, 7.2, 8.1.2, appendix A, appendix B, and appendix D.
    - Canadian Institute of Actuaries, “Educational Note: Role of the Appointed Actuary Under IFRS17,” Dec 2022.
    - Insurance Bureau of Canada, “Adapting to Rising Flood Risks – An Analysis of Insurance Solutions for Canada,” August 2022, Section 1-3, 5-8.
    - In “Landmark Legal Insurance Cases in Canada” add *Tomec v. Economical*.
    - Office of the Superintendent of Financial Institutions Canada, “P&C Minimum Capital Test and Branch Adequacy of Assets Test Quarterly Return (PC4),” Approved by the Canadian Council of Insurance Regulators, 2023.



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## Exam 6-United States

- **Delete:**
  - Baribeau, A.G., “Demystifying the Regulatory Web,” Actuarial Review, March/April 2016.
  - Karapiperis, Dimitri; Birnbaum, Birny; Brandenburg, Aaron; Castagna, Sandra; Greenberg, Allen; Harbage, Robin; and Obersteadt, Anne, Usage-Based Insurance and Vehicle Telematics: Insurance Market and Regulatory Implications, National Association of Insurance Commissioners, CIPR Study, March 2015, pp. 1-16 (excluding section on Tower Watson’s DriveAbility) and 42-60.
  
- **Modify:**
  - Update the following papers to the 2022/23 editions:
    - 2022 Insurance Expense Exhibit.FI
    - Committee on Property and Liability Financial Reporting, American Academy of Actuaries, “A Public Policy Practice Note, Statements of Actuarial Opinion on Property & Casualty Loss Reserves, 2022”
    - Emmanuel, J. N. and Lerner, Z. N., editors, “Excess and Surplus Lines Laws Manual,” Locke Lord LLP, revised 01/2022.
    - Horn, D. and Webel, B., “Private Flood Insurance and the National Flood Insurance Program,” updated January 9, 2023.
    - National Association of Insurance Commissioners, *Accounting Practices and Procedures Manual, 2022*. (This material is available in Appendix IV of the COPLFR P&C Practice Note.)
      - Preamble
      - Statement of Statutory Accounting Principles: 5R, 9, 53, 55, 62R, 63, 65, 66
    - National Association of Insurance Commissioners, “NAIC Insurance Regulatory Information System (IRIS) Ratios Manual.”
    - National Association of Insurance Commissioners Annual Statements and Annual Statement Examples, 2022.



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- In Feldblum, S., “Statutory Surplus: Computation, Pricing and Valuation,” CAS Study Note, June 2003, pp. 1-10, including errata. Candidates are not responsible for the endnotes, note addition of pp. 1-10.
  - In Vaughn, T., “The Economic Crisis and Lessons from (and for) U.S. Insurance Regulation,” Journal of Insurance Regulation, Fall 2009, pp. 6-13., note pages change to pp 6-13.
  - **Add:**
    - American Academy of Actuaries, “Estimating the Uncollectible Reinsurance Reserve for Property/Casualty Companies New GAAP Requirements,” July 2019, pp. 4-15.
    - American Academy of Actuaries, “Retained Property Casualty Insurance-Related Risk: Interaction of Actuarial Analysis and Accounting”, April 2018, Chapters 1 and 4.
    - Casualty Actuarial and Statistical (c) Task Force, Regulatory Review of Predictive Models White Paper, December 2020, Sections I, IV and VII.
    - Federal Insurance Office, Annual Report on the Insurance Industry Completed Pursuant to Title V of the Dodd-Frank Wall Street Reform and Consumer Protection Act, September 2022, Sections I, IA and I-B1.

### **Exam 8**

There are no reference changes for the Exam 8 October/November 2023 Syllabus.

### **Exam 6-International**

The reference changes for Exam 6-International are not yet finalized. This document will be updated when the information becomes available.