



BEPP 452/STAT 452. BEPP 852/STAT 852
Fundamentals of Actuarial Science II
Spring 2014

Textbook: Dickson, Hardy, Waters: Actuarial Mathematics for Life Contingent Risks
(Bookstore) First or second edition.

Course pack: Same as BEPP / STAT 451

Office hours: Tuesdays, Thursdays, 3:00-5:00, 459 JMHH

Note: If you hit “**Reply**” on an e-mail from me to the class, you are replying
to the whole class.

- Lesson 1: Dickson chapter 5: Basic annuities
Jan 16
- Lesson 2: Dickson chapter 5: Basic annuities
Jan 21
- Lesson 3: Dickson chapter 5: Annuities payable m times per year
Jan 23
- Lesson 4: Dickson chapter 5: Calculation of annuity functions
Jan 28
- Lesson 5: Dickson chapter 6: Net future loss: means and variances
Jan 30
- Lesson 6: Dickson chapter 6: Past exam questions
Feb 4
- Lesson 7: Dickson chapter 6: Gross annual premiums
Feb 6
- Lesson 8: Dickson chapter 6: Profit; extra risks
Feb 11
- Lesson 9: Dickson chapter 7: Policy values; examples
Feb 13
- Lesson 10: Dickson chapter 7: Prospective and retrospective reserves
Feb 18
- Lesson 11: Dickson chapter 7: Recursive formulas, discrete policies
Feb 20
- Lesson 12: Dickson chapter 7: Recursive formulas, examples
Feb 25
- Lesson 13: Dickson chapter 7: Asset shares
Feb 27
- Lesson 14: Dickson chapter 7: Fractional durations; non-forfeiture laws.
Mar 4

- Lesson 15: Dickson chapter 7: Modified premium reserves
 Mar 6 **Homework due: B6-2, B6-4, B6-5, B7-1, B7-6, B7-9, B7-10**
- Lesson 16: Dickson chapter 8: Joint-life and last-survivor benefits
 Mar 18
- Lesson 17: Dickson chapter 8: Two-life policies: examples
 Mar 20
- Lesson 18: Dickson chapter 8: Two-life policies: exam questions
 Mar 25 **End of mid-term material**
- Lesson 19: Dickson chapter 8: Dependent probabilities
 Mar 27 **Homework due: B9-19, B9-20, B9-21, B9-22**
- Lesson 20: **Mid-term exam.** You can have in class: your class notes, the textbook, and an
 Apr 1 SoA calculator
- Lesson 21: Dickson chapter 8: Independent probabilities
 Apr 3
- Lesson 22: Dickson chapter 8: Exam questions
 Apr 8
- Lesson 23: Application: Gun violence and life expectancies Course pack
 Apr 10
- Lesson 24: Dickson chapter 9: Introduction to pension plans
 Apr 15
- Lesson 25: Dickson chapter 9: Present value of employee benefits
 Apr 17
- Lesson 26: Dickson chapter 9: Funding plans
 Apr 22
- Lesson 27: Dickson chapter 9: Setting the Defined Contribution
 Apr 24
- Lesson 28: Examples: The practice of pension plans
 Apr 29 **Homework due: B10-10, B11-16, B11-18, B11-19**

Solutions to exam questions since 2000: www.soa.org, click: Education, Exams and Requirements, ASA, Exam MLC, Past Exams and Solutions; find the exam session and click solution.

Take-home project

Final grade: 45% mid-term
 40% take-home project
 15% assigned problems