



BEPP 452/STAT 452. BEPP 852/STAT 852
Fundamentals of Actuarial Science II
Spring 2015

Textbook: Dickson, Hardy, Waters: Actuarial Mathematics for Life Contingent Risks
(Bookstore)

Course pack: Same as BEPP / STAT 451

Office hours: Temporarily: by appointment and e-mail
Tuesdays, Thursdays, 3:00-5:00, 458 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 15
- Lesson 2: Dickson chapter 5: Annuities payable m times per year
Jan 20
- Lesson 3: Dickson chapter 5: Calculation of annuity functions
Jan 22
- Lesson 4: Dickson chapter 6: Net future loss: means and variances
Jan 27
- Lesson 5: Dickson chapter 6: Past exam questions
Jan 29
- Lesson 6: Dickson chapter 6: Gross annual premiums
Feb 3
- Lesson 7: Dickson chapter 6: Profit; extra risks
Feb 5
- Lesson 8: Dickson chapter 7: Policy values; examples
Feb 10
- Lesson 9: Dickson chapter 7: Prospective and retrospective reserves
Feb 12
- Lesson 10: Dickson chapter 7: Recursive formulas, discrete policies
Feb 17
- Lesson 11: Dickson chapter 7: Recursive formulas, examples
Feb 19
- Lesson 12: Dickson chapter 7: Asset shares
Feb 24
- Lesson 13: Dickson chapter 7: Fractional durations; non-forfeiture laws.
Feb 26
- Lesson 14: Dickson chapter 7: Modified premium reserves

Mar 2 **Homework due: B6-2, B6-4, B6-5, B7-1, B7-6, B7-9, B7-10**
 Lesson 15: Dickson chapter 8: Joint-life and last-survivor benefits
 Mar 5
 Lesson 16: Dickson chapter 8: Two-life policies: examples
 Mar 17
 Lesson 17: Dickson chapter 8: Two-life policies: exam questions
 Mar 19 **End of mid-term material**
 Lesson 18: Dickson chapter 8: Dependent probabilities
 Mar 24 **Homework due: B9-19, B9-20, B9-21, B9-22**
 Lesson 19: **Mid-term exam.** You can have in class: your class notes, the textbook, and an
 Mar 26 SoA calculator
 Lesson 20: Dickson chapter 8: Independent probabilities
 Mar 30
 Lesson 21: Dickson chapter 8: Exam questions
 Apr 2
 Lesson 22: Dickson chapter 9: Introduction to pension plans
 Apr 7
 Lesson 23: Dickson chapter 9: Present value of employee benefits
 Apr 9
 Lesson 24: Dickson chapter 9: Funding plans
 Apr 14
 Lesson 25: Dickson chapter 9: Setting the Defined Contribution
 Apr 16
 Lesson 26: Examples: The practice of pension plans
 Apr 21 **Homework due: B10-10, B11-16, B11-18, B11-19**
 Lesson 27: Open
 Apr 23
 Lesson 28: Open
 Apr 26

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