

# Stat 344, Long-term Actuarial Math, Fall 2024

TuTh 2:00-3:15 pm, 1159 WVB

## Instructor

Brian Hartman, PhD, ASA

2193 WVB, 801.422.5647

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Office Hours: M 10:30-11:30, Tu 8-9, W 9:30-10:30

## Course Aim and Goals

In this course we focus on the types and pricing of life insurance and life annuity contracts. We will cover chapters 1-7 and 18 of the book, namely survival models, life tables, insurance, annuities, premiums, reserves, and model estimation. This course covers all the long-term material in exam FAM.

## Recommended Textbook

*Actuarial Mathematics for Life Contingent Risks, 3rd Ed.*

by Dickson, Hardy, and Waters.

## Course Webpages

Learning Suite and

<http://hartman.byu.edu/docs/stat344.html>

## Course Assessment

Homework Assignments 20%

Midterm Exam 30%

Final Exam 50%

## SOA University Earned Credit

This course qualifies for the SOA University Earned Credit program for half of exam FAM. If you score at least 85% in this course and Stat 346, you will receive credit for exam FAM.

## Teaching Assistants

Davis Dowdle, [dowdle01@student.byu.edu](mailto:dowdle01@student.byu.edu)

Jaxon Wilkinson, [jw2276@student.byu.edu](mailto:jw2276@student.byu.edu)

## Open Lab Hours in WVB 1155

	Mon	Tue	Wed	Thur	Fri
10:00		DD		DD	
11:00	JW		JW	DD/JW	JW
12:00			JW	JW	JW
1:00	DD		DD/JW	JW	JW
2:00	DD		DD/JW		
3:00			JW		
4:00			JW		

## Exams

Exams are closed-book and closed-note. The midterm will be in class on October 17<sup>th</sup>. The final exam will be in class at our assigned time, currently Tuesday, December 17<sup>th</sup>, 3-6 pm.

## Homework

You will have approximately biweekly homework assignments. Homework is due either in class or via Learning Suite on the due date. No late homework will be accepted. I will drop your lowest homework grade.

## Course Schedule

Week	Topics Covered	Assignments
2-Sep	Insurance Coverages	
9-Sep	Mortality Models	
16-Sep	Mortality Models	
23-Sep	Life Insurance	HW #1
30-Sep	Life Insurance	
7-Oct	Life Insurance	
14-Oct	Review & Midterm	HW #2
21-Oct	Life Annuities	
28-Oct	Life Annuities	
4-Nov	Premiums	HW #3
11-Nov	Premiums	
18-Nov	Policy Values	HW #4
25-Nov	No class - Thanksgiving	
2-Dec	Policy Values	HW #5
9-Dec	Policy Values	HW #6

## Honor Code

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and my own expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

## Preventing & Responding to Sexual Misconduct

In accordance with Title IX of the Education Amendments of 1972, Brigham Young University prohibits unlawful sex discrimination against any participant in its education programs or activities. The university also prohibits sexual harassment—including sexual violence—committed by or against students, university employees, and visitors to campus. As outlined in university policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by the university.

University policy requires all university employees in a teaching, managerial, or supervisory role to report all incidents of Sexual Misconduct that come to their attention in any way, including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Incidents of Sexual Misconduct should be reported to the Title IX Coordinator at [t9coordinator@byu.edu](mailto:t9coordinator@byu.edu) or (801) 422-8692. Reports may also be submitted through EthicsPoint at <https://titleix.byu.edu/report> or 1-888-238-1062 (24-hours a day).

BYU offers confidential resources for those affected by Sexual Misconduct, including the university's Victim Advocate, as well as a number of non-confidential resources and services that may be helpful. Additional information about Title IX, the university's Sexual Misconduct Policy, reporting requirements, and resources can be found at <http://titleix.byu.edu> or by contacting the university's Title IX Coordinator.

## Student Disability

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability

which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 422-2767. Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. The UAC can also assess students for learning, attention, and emotional concerns. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.

## Mental Health Services

Barriers to learning are created by stress, anxiety, family and relationship concerns, and personal crises. If stressful life events or mental health concerns are inhibiting your ability to participate in daily activities or leading to diminished academic performance, please contact the BYU Counseling and Psychological Services (CAPS; 1500 WSC, [801-422-3035](tel:801-422-3035), [caps.byu.edu](http://caps.byu.edu)). CAPS provides individual, couples and group counseling to students. These services are confidential and are provided by the university at no added cost to you. Professional psychologists and counselors who specialize in helping college students are available 24-hours a day to assist students in crisis; if you have an emergency during non-business hours (5pm-8am), please contact BYU Police Dispatch ([801-422-2222](tel:801-422-2222)) who will put you in touch with a counselor.

## Sexual Assault Survivor Resources

If you or someone you know experienced sexual assault, BYU's Sexual Assault Survivor Advocacy Services (SASAS) can help. SASAS can provide information, support, and connect you to the resources you may need. SASAS services are free and confidential.

Phone: 801.422.9071

Email: [advocate@byu.edu](mailto:advocate@byu.edu)

Web: <https://advocates.byu.edu/>

Location: 1500 WSC

National Sexual Assault Hotline: 1-800-656-4673