Name:

Fill in your class schedule, any regular work/ministry/exercise/activities, and when you plan to fit your study time in each week. I recommend that you commit to finding time between 7am and 11pm to complete your work and reserve 11pm to 7am as sleeping/bible study/etc. time.

Study times should be at least 45 minutes in length. Identify at least one hour that you will use for cumulative review each week. If you know that you will likely “miss” one of your study sessions each week, plan an extra 2+ hours for study.

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|  | Thursday | Friday | Saturday | Sunday | Monday | Tuesday | Wednesday |
| 7am |  |  |  |  |  |  |  |
| 8am |  |  |  |  |  |  |  |
| 9am |  |  |  |  |  |  |  |
| 10am |  |  |  |  |  |  |  |
| 11am |  |  |  |  |  |  |  |
| Noon |  |  |  |  |  |  |  |
| 1pm |  |  |  |  |  |  |  |
| 2pm |  |  |  |  |  |  |  |
| 3pm |  |  |  |  |  |  |  |
| 4pm |  |  |  |  |  |  |  |
| 5pm |  |  |  |  |  |  |  |
| 6pm |  |  |  |  |  |  |  |
| 7pm |  |  |  |  |  |  |  |
| 8pm |  |  |  |  |  |  |  |
| 9pm |  |  |  |  |  |  |  |
| 10pm |  |  |  |  |  |  |  |

Identify your approximate test date:

Identify when you want to be focusing on just practice exams:

Determine how you will assess your progress each week to see if you are on schedule to be ready for your exam:

Complete the following three pages. Evaluate your proposed timeline. Will your current study plan allow you to have enough time to spend on just practice exams prior to your exam date?

Estimate your current % of understanding for each topic. Estimate the number of additional hours you need to invest in the topic to get to A-level understanding. Use the number of additional hours needed to determine a target completion date for each topic.

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| Completion Date: | 1. **Time Value of Money (5-15%)**  |
| **Learning Objectives**  |
| The Candidate will understand and be able to perform calculations relating to present value, current value, and accumulated value.  |
| **Learning Outcomes**  |
| %hours%hours%hours | The Candidate will be able to: 1. Define and recognize the definitions of the following terms: interest rate (rate of interest), simple interest, compound interest, accumulation function, future value, current value, present value, net present value, discount factor, discount rate (rate of discount), convertible m-thly, nominal rate, effective rate, inflation and real rate of interest, force of interest, equation of value.
2. Given any three of interest rate, period of time, present value, and future value, calculate the remaining item using simple or compound interest. Solve time value of money equations involving variable force of interest.
3. Given any one of the effective interest rate, the nominal interest rate convertible m-thly, the effective discount rate, the nominal discount rate convertible m-thly, or the force of interest, calculate any of the other items.
4. Write the equation of value given a set of cash flows and an interest rate.
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| Completion Date: | 2. **Topic: Annuities/cash flows with non-contingent payments (20-30%)**  |
| **Learning Objectives**  |
| The Candidate will be able to calculate present value, current value, and accumulated value for sequences of non-contingent payments.  |
| **Learning Outcomes**  |
| %hours | The Candidate will be able to: 1. Define and recognize the definitions of the following terms: annuity-immediate, annuity due, perpetuity, payable m-thly or payable continuously, level payment annuity, arithmetic increasing/decreasing annuity, geometric increasing/decreasing annuity, term of annuity.
2. For each of the following types of annuity/cash flows, given sufficient information of immediate or due, present value, future value, current value, interest rate, payment amount, and term of annuity, calculate any remaining item.
* Level annuity, finite term.
* Level perpetuity.
* Non-level annuities/cash flows.
* Arithmetic progression, finite term and perpetuity.
* Geometric progression, finite term and perpetuity.
* Other non-level annuities/cash flows.
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| Completion Date: | 3. **Topic: Loans (15-25%)**  |
| **Learning Objectives**  |
| The Candidate will understand key concepts concerning loans and how to perform related calculations.  |
| **Learning Outcomes**  |
| %hours | The Candidate will be able to: 1. Define and recognize the definitions of the following terms: principal, interest, term of loan, outstanding balance, final payment (drop payment, balloon payment), amortization.
2. Calculate:
* The missing item, given any four of: term of loan, interest rate, payment amount, payment period, principal.
* The outstanding balance at any point in time.
* The amount of interest and principal repayment in a given payment.
* Similar calculations to the above when refinancing is involved.
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| Completion Date: | 4. **Topic: Bonds (15-25%)**  |
| **Learning Objectives**  |
| The Candidate will understand key concepts concerning bonds, and how to perform related calculations.  |
| **Learning Outcomes**  |
| %hours%hours | The Candidate will be able to: 1. Define and recognize the definitions of the following terms: price, book value, market value, amortization of premium, accumulation of discount, redemption value, par value/face value, yield rate, coupon, coupon rate, term of bond, callable/non-callable, call price, call premium, accumulated value with reinvestment of coupons.
2. Given sufficient partial information about the items listed below, calculate any of the remaining items
* Price, book value, market value, accumulated value with reinvestment of coupons, amortization of premium, accumulation of discount. (Note that valuation of bonds between coupon payment dates will not be covered).
* Redemption value, face value.
* Yield rate.
* Coupon, coupon rate.
* Term of bond, point in time that a bond has a given book value, amortization of premium, or accumulation of discount.
1. Calculate the price of a callable bond to achieve a specified minimum yield
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| Completion Date: | 5. **Topic: General Cash Flows, Portfolios, and Asset Liability Management (20-30%)**  |
| **Learning Objectives**  |
| The Candidate will understand key concepts concerning yield curves, rates of return, measures of duration and convexity, cash flow matching and immunization, and how to perform related calculations.  |
| **Learning Outcomes**  |
| Don’t forget to read the study note.%hours%hours | The Candidate will be able to: 1. Define and recognize the definitions of the following terms: yield rate/rate of return, current value, duration and convexity (Macaulay and modified), portfolio, spot rate, forward rate, yield curve, cash flow and duration matching, and immunization (including full immunization and Redington immunization).
2. Calculate:
* The duration and convexity of a set of cash flows.
* Either Macaulay or modified duration given the other.
* The approximate change in present value due to a change in interest rate,
* Using 1st-order linear approximation based on modified duration.
* Using 1st-order approximation based on Macaulay duration.
* The present value of a set of cash flows, using a yield curve developed from forward and spot rates.
1. Construct an investment portfolio to:
* Protect the value of an asset-liability portfolio using either Redington or full immunization
* Exactly match a set of liability cash flows.
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* Read “How I Passed My Final SOA Exam” by Michael McDermid from *Actuary of the Future* Issue 30, May 2011. (see <https://www.soa.org/globalassets/assets/library/newsletters/actuary-of-the-future/2011/may/afn-2011-iss30-mcdermid.pdf>)
* Read “Finding More Time in a Day” by Mindy Moss (see <https://www.casact.org/newsletter/article/finding-more-time-day-tips-and-tricks-get-those-study-hours>)
* Review *Actuarial Exam Tactics*

Give a detailed, specific summary of how you plan to ensure that your study is both effective and efficient this semester. Consider including comments on time limits, goals for individual sessions, start-up costs, self-imposed pressure, etc.