**Kellogg ACF Placement Exam: Complete Interactive Study Guide**

**Quick Start Setup Wizard**

**Step 1: Set Your Timeline**

**When is your ACF exam?**

**Today's Date:**

**Days Until Exam**:

**Step 2: Choose Your Intensity Level**

**Intensive (7-10 days)**: 2-3 hours/day, accelerated pace

**Standard (14 days)**: 1-2 hours/day, balanced approach **Extended (21 days**): 45-60 min/day, steady progression

**Step 3: Initial Self-Assessment**

Rate

your comfort (1-5) with:

• Time Value of Money:

• Portfolio Theory:

• Financial Statements:

• Excel Functions:

• Bond Valuation:

**Your Personalized Progress Dashboard**

ACF EXAM READINESS TRACKER

Overall Progress:

TOPIC MASTERY:

TVM & PV

0%

0%

O Portfolio Theory

0%

Returns & Bonds

0%

Balance Sheet B

10%

Statement Links

0%

O Excel Finance

0%

O Annuities

0%

O Ratio Analysis

0%

O Capital Budgeting [

0%

Daily Quiz Streak: 0 days

Weakest Area: [To be determined]

Recommended Focus**:** Start with TVM

**TOPIC 1: Present Value and Time Value of Money**

**Learning Objectives**

After this module, you will:

• Calculate PV and FV for any cash flow scenario

• Apply TVM concepts to real investment decisions

• Use Excel's financial functions efficiently

• Solve complex multi-period problems

**Core Concepts**

**Time Value of Money (TVM)**: Money today is worth more than the same amount in the future due to:

1. **Opportunity Cost**: Can invest and earn returns

2. **Inflation:** Purchasing power erosion

3. **Risk**: Future receipts uncertain

**Essential Formulas**

**Present Value:** *PV*

=

FV (1+r)n

**Future Value:** *FV* = *PV* × (1+r)n

Where:

• PV Present Value

FV Future Value

• r = Discount/Interest rate per period

n = Number of periods

**Common Mistakes to Avoid**

• X Mixing annual and monthly rates

Forgetting to match time periods

• X Using nominal vs. real rates incorrectly

**Excel Implementation**

excel

=PV(rate, nper, pmt, [fv], [type])

=FV(rate, nper, pmt, [pv], [type])

**Worked Examples**

**Example 1: Basic PV Calculation** Find the present value of $5,000 received in 3 years at 6% annual rate.

*Solution: PV*

=

5,000 5,000 (1.06)3 1.191

**=**

$4, 198.10

**Example 2: Multiple Cash Flows** Calculate PV of: $1,000 (Year 1), $2,000 (Year 2), $3,000 (Year 3) at 8%

*Solution: PV*

=

+

1.08

1,000 2,000 3,000

+ (1.08)2 (1.08)3

*PV*=

=

925.93+1, 714.68 +2, 381.50 = $5,022.11

**Practice Problems**

1. **Quick Drill**: What is the PV of $1,000 in 2 years at 5%?

2. **Application**: A bond pays $50 annually for 10 years plus $1,000 at maturity. Value at 4%?

3. **Excel Challenge**: Compare monthly vs. annual compounding on $10,000 at 12% for 5 years

**Interactive Practice Tools**

Wayground TVM Quiz

• UTK Chapter 3 Quiz

• Excel-Easy Financial Functions

**Perplexity Labs Practice Generator**

*Prompt:* "Generate 20 TVM problems progressing from simple single cash flows to complex annuity

combinations with solutions"

**TOPIC 2: Portfolio Expected Return and Risk**

**Learning Objectives**

• Calculate portfolio expected returns

• Measure portfolio risk (variance/standard deviation)

• Understand diversification benefits

Apply modern portfolio theory

**Essential Formulas**

*n*

**Portfolio Expected Return: *E****(Rp)* =

wi

?\_1 W; × *E(R;)*

**Two-Asset Portfolio Variance:** 2 = wo+*w202* + 2w1w2P120102

**Worked Examples**

*Ρ*

**Example 1: Expected Return** Portfolio: 60% Stock A (E(R)=12%), 40% Stock B (E(R)=8%)

*Solution: E(Rp*) = 0.6(12%) + 0.4(8%) = 10.4%

**Example 2: Portfolio Risk** σ\_A = 20%, σ\_B = 15%, p = 0.3, weights 50/50

*Solution: σ2* = (0.5)2(0.2)2 + (0.5)2 (0.15)2 +2(0.5)(0.5)(0.3)(0.2)(0.15) op

*p*

**Interactive Tools**

• MoneyOwl Portfolio Analysis

• Portfolio Visualizer

=

**TOPIC 3: Investment Returns (Including Bonds)**

**Learning Objectives**

• Calculate holding period returns

• Understand bond pricing and yields

14.23%

=

*P1*-*Po*+*D Ро*

+

F (1+y)n

• Apply duration concepts

• Compare YTM vs. current yield

**Essential Formulas**

**Holding Period Return:** *HPR*

*C*

**Bond Price**: *P* = Σt=1 (1+y)t

**Interactive Tools**

• Fidelity Bond Quiz

• Tutor2U Bond Calculations

**TOPIC 4: Balance Sheet Components**

**Learning Objectives**

• Classify assets, liabilities, and equity

Distinguish current vs. non-current items

• Understand the accounting equation

•

Apply classification to real examples

**Key Classifications**

**Assets = Liabilities + Equity**

**Current Assets** (< 1 year):

• Cash & equivalents

• Accounts receivable

• Inventory

• Prepaid expenses

**Non-Current Assets**:

• PP&E

• Intangibles

• Long-term investments

**Interactive Tools**

• Wayground Financial Statements Quiz

• Quizizz Balance Sheet Components

**TOPIC 5: Income Statement & Balance Sheet Interactions**

**Learning Objectives**

• Trace net income to retained earnings

• Understand statement articulation

• Map transaction impacts across statements

**Key Relationship**

REend = REbegin + Net Income - Dividends

**Interactive Tools**

• Quizlet Statement Interactions

**TOPIC 6: Excel for Finance**

**Essential Functions**

excel

Time Value: PV(), FV(), PMT(), RATE(), NPER() Investment: NPV), IRR(), XNPV)), XIRR() Statistics: AVERAGE(), STDEV(), CORREL()

**Interactive Tutorials**

• Excel-Easy Financial Functions

• Financial Edge 30+ Functions

**TOPIC 7: Annuities & Perpetuities**

**Essential Formulas**

**Ordinary Annuity PV:** *PVA PMT* ×

1-(1+r)"

-

*r*

**Perpetuity PV:** *PVP*

*PMT*

=

*r*

**TOPIC 8: Basic Ratio Analysis**

**Key Ratios**

**Liquidity:**

• Current Ratio = Current Assets / Current Liabilities

• Quick Ratio = (CA - Inventory) / CL

**Leverage:**

• Debt-to-Equity = Total Debt / Total Equity

• Interest Coverage = EBIT / Interest

**TOPIC 9: Capital Budgeting**

**Essential Formulas**

**NPV:** NPV = −Co + Σt=1 (1+r)2

**Decision Rules:**

• NPV > 0: Accept

*CFt*

Σt=1(1+r)2

• IRR > Required Return: Accept

**Daily 5-Minute Quiz System**

**Day 1 Quiz - Pure TVM Focus**

**Time: 5 minutes**

1. **Quick Calc**: PV of $2,000 in 4 years at 7%?

2. **Concept**: Why is money today worth more than tomorrow?

3. **Excel**: Which function calculates loan payments?

4. **Application**: Should you take $10,000 now or $12,000 in 2 years (r=8%)?

5. **Review***:* Define discount rate

**Day 2 Quiz - TVM + Annuities**

[Continues for all 14 days with progressive integration]

**Your 14-Day Study Schedule**

**Week 1: Foundation Building**

**Day 1-2**: TVM mastery + Daily Quiz **Day 3-4:** Portfolio theory + Risk **Day 5-6**: Financial statements **Day 7**: Integration review

**Week 2: Advanced Application**

**Day 8-9**: Bonds & returns **Day 10-11**: Ratios & analysis **Day 12-13**: Capital budgeting **Day 14**: Final

review & confidence

**Comprehensive Assessment Tools**

• FINRA Financial Knowledge Quiz

• KIS Finance Quiz

• Study.com TVM Practice

**Success Metrics & Milestones**

**Week 1 Targets:**

• Complete 80%+ on topic quizzes

• Master Excel PV/FV functions

• 7-day quiz streak

**Week 2 Targets:**

• 85%+ on integrated problems

• Complete all practice tools

• 90%+ on comprehensive assessment

**Final Success Tips**

1. **Start each topic with assessment** - identify gaps immediately

2. **Practice immediately** - don't wait between learning and doing

3. **Track everything** - monitor quiz scores for focused review

4. **Use all tools** - Perplexity for concepts, Labs for practice

5. **Stay consistent** - daily quizzes maintain momentum

**Remember:** The ACF exam tests both technical skills and financial intuition. This guide provides the

structure - your consistent practice brings success!

**Need Help?**

• **Conceptual Questions:** Use Perplexity to research deeper

• **Practice Problems:** Perplexity Labs generates custom sets

• **Excel Help**: Julius Al for complex models

• **Quick Review**: ChatGPT for concept clarification

**You've got this!**