Corporate Finance & Financial Modelling

Connect business decisions to cash flows, financing choices, forecasts, and valuation.

CLARAFIS | ADVANCED COURSE

Explore capital decisions, forecasting, model structure, scenarios, and valuation logic.

Before you start
No specialist background is required beyond the stated level. Work through one module at a time, write down your assumptions, and try each exercise before reading its explanation.

Course map: Time value and cash flow; investment decisions; financing and cost of capital; forecast drivers; integrated models; valuation and sensitivity.

How to learn from this course

Read in order and connect each idea to a realistic example. Keep a small notebook of definitions, calculations, and questions. When numbers appear, show the steps and label assumptions. The examples use simplified fictional situations so you can focus on the method.

What you will be able to do

Explore capital decisions, forecasting, model structure, scenarios, and valuation logic.

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Important
This course provides general education. It is not individualized financial, tax, legal, accounting, or investment advice. Laws, products, standards, and protections differ by jurisdiction and can change. Verify current details with qualified local sources.

1. Corporate finance and time value

MODULE 1

Key idea

Corporate finance studies how organizations fund operations, invest resources, and manage financial risk. Money at different dates is not directly comparable. Present value discounts future cash flows; future value compounds current amounts. The discount rate reflects assumptions and risk, so it must be justified and used consistently.

Worked example
At a 10% annual rate, 110 received one year from now has present value 110/1.10 = 100. This is a mathematical example, not a market rate or a decision rule.

Try it yourself

Identify the cash flow, date, and rate needed to compare two project options. Explain how changing the rate changes present value.

Key terms

Review the glossary at the end and add any new terms you encounter.

2. Evaluate investment projects

MODULE 2

Key idea

Capital budgeting compares expected incremental cash flows with an initial investment. Net present value (NPV) discounts future cash flows and subtracts the initial outlay. Internal rate of return is the rate that sets NPV to zero, but can mislead with unusual cash flow patterns or scale differences. Use scenarios and strategic context.

Worked example
A project costs 100 today and returns 60 in each of the next two years. At 10%, NPV = -100 + 60/1.10 + 60/1.10^2, about 4.13. Assumptions dominate the apparent precision.

Try it yourself

Calculate NPV for the same project at 15%. Describe why a positive base-case NPV alone does not guarantee a good decision.

Key terms

Review the glossary at the end and add any new terms you encounter.

3. Financing choices and cost of capital

MODULE 3

Key idea

Organizations may use retained earnings, debt, or equity. Each has costs, rights, constraints, and risks. More debt can increase fixed obligations and financial distress risk; issuing equity can dilute ownership. Weighted average cost of capital combines financing costs only when assumptions and weights fit the valuation use.

Worked example
A simplified capital structure that is 40% debt at 6% and 60% equity at 12% has a pre-tax weighted cost of 9.6%. Taxes, market weights, and other assumptions are omitted.

Try it yourself

List three questions to investigate before recommending a financing mix, including maturity and downside capacity.

Key terms

Review the glossary at the end and add any new terms you encounter.

4. Build an operating forecast from drivers

MODULE 4

Key idea

A forecast should connect business drivers to financial statements. Revenue may follow volume times price; costs may follow units, rates, or capacity. Separate historical actuals from forecast assumptions. Make units and dates explicit, and distinguish input cells from formulas. Avoid forecasting every line as a fixed percentage without a business reason.

Worked example
If volume is 10,000 units and average price is 25, revenue is 250,000. If volume grows 5% and price falls 2%, the new revenue is 10,500 x 24.50 = 257,250, up 2.9%.

Try it yourself

Create a driver tree for a fictional subscription service: customers, monthly price, churn, and support cost. Label each input and source.

Key terms

Review the glossary at the end and add any new terms you encounter.

5. Integrate statements and test the model

MODULE 5

Key idea

A three-statement model links profit to retained earnings, working capital to cash flow, and financing to debt and interest. Cash should reconcile across periods; the balance sheet should balance. Use explicit checks, scenario switches, and clear sign conventions. A model is a structured set of assumptions, not a prediction machine.

Worked example
If receivables rise by 15, that increase generally uses cash in an indirect operating cash flow bridge. Confirm the sign convention and reporting framework used in the model.

Try it yourself

Build a small model with revenue, operating cost, depreciation, tax assumption, working capital, and cash. Add a balance check and a scenario for lower sales.

Key terms

Review the glossary at the end and add any new terms you encounter.

6. Valuation, sensitivity, and communication

MODULE 6

Key idea

A discounted cash flow valuation estimates value from forecast cash flows and a terminal value. Comparable-company methods use peer metrics and require consistent definitions. Sensitivity analysis shows how outputs change under different assumptions; it does not assign certainty. Document sources, dates, limitations, and conflicts of interest.

Worked example
If terminal value forms most of a DCF result, a small change in long-term growth or discount rate can materially move value. Show a sensitivity table instead of presenting a single precise figure.

Try it yourself

Write a model review note: key drivers, three downside risks, the most sensitive assumption, and one limitation of the chosen valuation method.

Key terms

Review the glossary at the end and add any new terms you encounter.

Practice case

Try the problem before reading the explanation below. Show each step and state any assumptions you make.

Case
A project requires 500 now and is expected to return 220, 220, and 180 at the ends of years 1, 2, and 3. At a 10% discount rate, calculate approximate NPV: -500 + 220/1.1 + 220/1.1^2 + 180/1.1^3. Then name two assumptions that would need evidence.

Worked answer

Approximate present values are 200.00, 181.82, and 135.24. NPV is about 17.06. Evidence would be needed for unit volume and price, operating costs, timing, taxes, working capital, project life, and the discount rate. The estimate is highly assumption-dependent and is not a recommendation to invest.

Reflection
Which assumption matters most? What additional information would you want before applying this method to a real situation?

Glossary and next steps

Net present value present value of forecast cash flows less initial investment.

Discount rate rate used to translate future cash flows into present value.

Terminal value estimated value beyond an explicit forecast period.

Cost of capital required return associated with financing and risk assumptions.

Working capital operating short-term resources and obligations.

Sensitivity analysis testing output changes as assumptions vary.

Scenario a coherent set of assumptions describing a possible future.

Keep learning

Review the worked examples, then repeat the exercises using new fictional numbers. For real decisions, consult current primary documents and reliable local authorities. Keep a record of where information came from and when you checked it.

Financial education notice
No product, security, account, loan, or course example is a recommendation. This material does not consider an individual’s circumstances, objectives, or risk tolerance.

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