

Economic Modeling

General Objectives:

The evaluation and selection of engineering and construction projects is often based on the calculation of indicators obtained from the estimation of financial flows, discounted at the cost of capital rate. However, often the models and computer tools available for this evaluation prove to be complex and difficult to implement.

This course aims to introduce, develop and discuss the methods necessary for the financial and economic evaluation of projects, develop methodologies and criteria for the analysis of projects, both in the economic and financial aspects, financing analysis, calculation of risk capital.

Specific Objectives:

At the end of the course trainees will be able to:

- Identify the various types of investment;
- Draw up a business plan;
- Calculate the impact of income tax;
- Financing analysis;
- Calculation of NPV, IRR;
- Manage risk;
- Structuring balance sheets;
- Analyze credit risk.

Recipients:

To all professionals working with projects, investment, DF'S analysis and venture capital analysis.

Duration:

30 Hours

Content Program:

Module I - Main Concepts and Indicators of economic scenarios their influences on the market.

- Sensitivity analysis;
- Risk analysis;
- Price system;
- Sectoral analysis;
- Economic-social analysis.

Module II - Future investments

- Future value of an investment;
- Create a model for investment calculation using data validation;
- Use the target achievement tool to analyze an investment;
- Evaluation in Excel.

Module III - Analysis of an Investment

- Net Present Value;
- Investment analysis from NPV;
- Net present value profile;
- Calculation of the Internal Rate of Return (IRR);
- Valuation in Excel.

Module IV - Business Valuation Criteria (4 hours)

- Profitability criteria used in predictive investment analysis;
- Profitability criteria used in management accounting analysis;
- Systematic use of the criteria and presentation of results.

Module V - Risks - Analysis and Control (4 hours)

- Definition of risk;
- Risk classification;
- Interest rates and risk;

- Risk structure and control;
- Risks in the different phases of the project.

Module VI - Diagnosis of the project's forecast solvency

- Forecasting financial statements;
- Their importance in monitoring and controlling the performance of the project/company;
- Operating Account (Income Statement);
- Balance Sheets;
- Cash Flow Statement;
- Financial Plan;
- Key ratios and indicators;
- Evaluation of Projects after their realization;
- Practical exercises.