



AI272U Investeringsanalys för fastighetstillämpningar 7,5 hp

Real Estate Investment Analysis

Fastställande

Kursplan för AI272U gäller från och med HT12

Betygsskala

P, F

Utbildningsnivå

Avancerad nivå

Huvudområden

Samhällsbyggnad

Särskild behörighet

Higher education in engineering, economics or equivalent knowledge through work experience.

Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

Lärandemål

The overall aim of this course is to provide students with the mathematical and practical tools needed to evaluate different investment alternatives, i.e. provide students with basic theoretical and practical knowledge of investment decision making, with emphasis on direct equity investments in income-producing real estate. Furthermore, this course prepares students for further studies in real estate finance and economics.

Kursinnehåll

Students should after the course be able to answer questions like

- What investments should the investor make (the investor's investment decision)?
- How do investors determine the price they are willing to pay for an office building?

To be able to answer these questions, one need to be able to:

- Identify and explain the basic steps in the investment process.
- Derive and understand the origin of the major formulas used in present value calculations.
- Evaluate different investment alternatives.
- Critically assess different investment criteria.
- Define and compute different return measures.
- Develop MS Excel spreadsheets for investment decision making.

Kursupplägg

The course consists of three major blocks:

- Present value mathematics.
- Investment decision making.
- Discounted Cash Flow models in MS Excel.

Block 1 Present value mathematics

- The time value of money.
- Net Present Value, NPV, and the opportunity cost of capital
- The basic formulas and procedures for converting future cash flow to present value, given the appropriate discount rates.
- The basic formulas and procedures for other, related mathematical formulas to compare cash flows occurring at different points of time
- The origin and derivation of these mathematical formulas, in such a way that they can be applied with some flexibility to new situations.

Block 2 :Investment decision making

- Capital budgeting techniques.

- Investment decision making using the Net Present Value, NPV, rule.
- The concept of Internal Rate of Return, IRR, and some pitfalls in using the IRR as an investment criteria.
- Other investment decision making rules and comparison with the NPV.
- Sensitivity analysis.
- Calculations in nominal and real terms.

Block 3 Discounted Cash Flow models in MS Excel

- The components and terminology of the typical property investment projection cash flow proforma.
- Building up a cash flow model in MS-excel, that can be used for investment decision making
- Some major practical considerations in applying Discounted Cash Flow models for real estate properties.
- Some major practical considerations in estimating the appropriate discount rate to use.

Contents in brief

Present value mathematics; Discounted cash flow models; Investment decision criteria; Modelling in MS excel; Sensitivity analysis.

Kurslitteratur

Berk, J. and DeMarzo P., Corporate Finance, latest edition, global edition, Pearson.

Examination

- PRO1 - Projektuppgift, 2,5 hp, betygsskala: P, F
- TEN1 - Tentamen, 5,0 hp, betygsskala: P, F

Examinator beslutar, baserat på rekommendation från KTH:s handläggare av stöd till studenter med funktionsnedsättning, om eventuell anpassad examination för studenter med dokumenterad, varaktig funktionsnedsättning.

Examinator får medge annan examinationsform vid omexamination av enskilda studenter.

När kurs inte längre ges har student möjlighet att examineras under ytterligare två läsår.

Etiskt förhållningssätt

- Vid grupparbete har alla i gruppen ansvar för gruppens arbete.
- Vid examination ska varje student ärligt redovisa hjälp som erhållits och källor som använts.
- Vid muntlig examination ska varje student kunna redogöra för hela uppgiften och hela lösningen.