

**PROJECT EVALUATION**  
**Class E1**  
2015/1016 – 2<sup>nd</sup> Semester  
**PROGRAM**

**Chapter 1 – Basic Concepts**

1. Notion of Real Investment
2. Analysis of Real Investments
3. Opportunity Cost of Capital
4. Uncertainty and Future Financial Flows
5. Financial Flows and Incremental Logic
6. Net Present Value – NPV
7. *Case Studies*

**Chapter 2 – Investment and Entrepreneurial Strategy**

1. Preliminary Aspects
2. Strategic Process
3. Strategic Process and Investment Analysis
4. *Case Studies*

**Chapter 3 – Capital Investment**

1. Basic Notion of Capital Investment
2. Fixed- Capital – Asset
3. Working Capital
4. Residual Value
5. Physical and Financial Maps
6. Investment Duration
7. Importance of Strategic Analysis
8. *Case Studies*

**Chapter 4 – Financial Flows of Investment/Financial Statements**

1. Strategic Analysis and Activity Level
2. Capital Budgeting
3. Financial Statements
4. General Conditioning of Financial Flows
5. Operational Cash-Flow, Free Cash Flow and Global Cash-Flow
6. Flow of Cash, Free Cash-Flow and Global Cash-Flow of Shareholders
7. *Case Studies*

**Chapter 5 – Financing of Projects**

1. Investment Decision and Financial Decision
2. Level of Indebtedness and Cost of Equity and Debt
3. Capital Structure Decision – Classic Vision

4. Capital Structure Decision – Other Visions
5. Dividend Policy and Capital Structure
6. Cost of Invested Capital
7. *Case Studies*

### **Chapter 6 – Project Selection**

1. Evaluation Models – NPV, IRR, MIRR, Payback Period, IR, APV
2. Sequential NPV Profile
3. *Case Studies*

### **Chapter 7 – Decision under Uncertainty**

1. Uncertainty and Risk
2. Incorporation of Risk in Investment Analysis
3. Sensitivity Analysis
4. Scenario Analysis
5. *Case Studies*

### **Chapter 8 – Inflation in Investment Analysis**

1. Basic Concepts – Inflation, Uncertainty and Discount Rate
2. Inflation Impact on Investment Analysis
3. Additional Notes About Inflation Impact

#### **ASSESSMENT:**

- Intermediate Test (1/3) + Written Test (2/3) = **40%**.
  - Written Test is about all subjects of the Program (May 2016). Access condition: have missed a maximum of 4 classes.
- Exam (EN or ER) = **60%**.
- The final mark can be obtained by 2 ways. From both alternatives the higher mark is selected.
  - (1) Only the Exam (EN or ER) **or**
  - (2) Exam (EN or ER) (60%) and the Intermediate Test & Written Test (40%).

#### **Main BIBLIOGRAPHY**

Crundwell, F. K. (2008). *Finance for Engineers - Evaluation and Funding of Capital Projects*, Springer.