# CH0401 Process Engineering Economics

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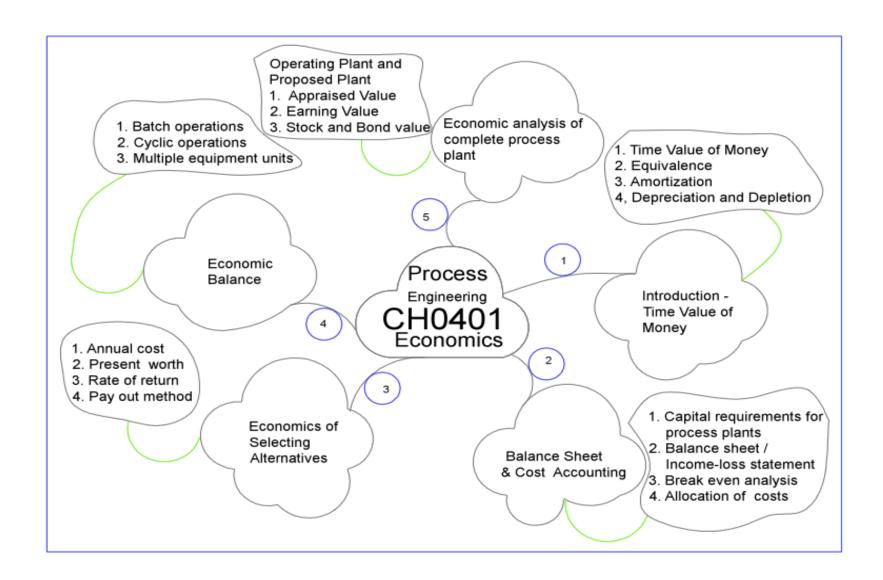


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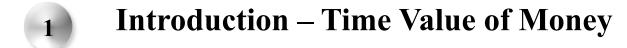
### **Process Engineering Economics**

- 1 Introduction Time Value of Money
- 2 Balance Sheet and Cost Accounting
- 3 Economic of Selecting Alternatives
- 4 Economic Balance in Cyclic operation
- 5 Economic Analysis of Complete Process Plants

### Process Engineering Economics – Syllabus



#### **Process Engineering Economics**



- Balance Sheet and Cost Accounting
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## Process Engineering Economics – Why?

#### Is a process engineer need the economics!

- The determination of optimum operating conditions for minimum cost
- The study of alternates to replace process to improve quality or yield
- The study of the economic feasibility of new processes and products
- The evaluation and economic analysis of research developments

To perform these functions the process engineer uses certain economic principles and accounting techniques as a tool



## Process Engineering Economics – Why? (Contd...)

#### Where the data's are available?

The raw data for economic studies are obtained from the company accountants for the past operations and additional data are obtained from the engineer's, salesman or technical experts for complete operations.

The process engineer relying on his experience and judgment estimates missing data and employs all the available information for making the economic analysis.

#### Process Engineering Economics – *Time Value of Money*

- Time value of Money
- Equivalence
- Equations for economic studies
- Amortization
- Depreciation
- Depletion