مادة بحوث العمليات الإدارية

مقدّم لكِ من قبل: رفال مدني

ملخص الفصل الأول

مقدمة عن بحوث العمليات الإدارية

رابط المقرر

Summary of

Introduction To Operation Research

Operation Research (Management Science) is the application of a scientific approach to solve management problems in order to help managers make better decisions.

Management Science Process

1 **Observation**
Identifying a problem that is exist in a system

2 **Problem Definition**
Defining the problem clearly by showing factors that are related to the problem

3 **Model Construction**
Developing the functional relationship between factors

Feedback

4 **Solution**
Solving models using Operation Research Techniques

5 **Implementation**
Actual use of the solution

Model is an abstract representation of an existing problem, which consist of a set of mathematical relationships.

Parameter (constant) are known values, often derived from data.

Constraint (resource) are boundaries that limit the use of source, for example, time, certain amount, or effort.

Variable is a symbol that can represent any value.

- Dependent variable
- Independent variable

The Break-Even point is the point where total cost equals revenue. It illustrates how many units need to be sold to earn profit. At this point, profit is zero.

$$volume\ (units) = \frac{fixed\ cost}{price - variable\ cost}$$

Fixed Cost: constant costs during the production level or number of units produced.

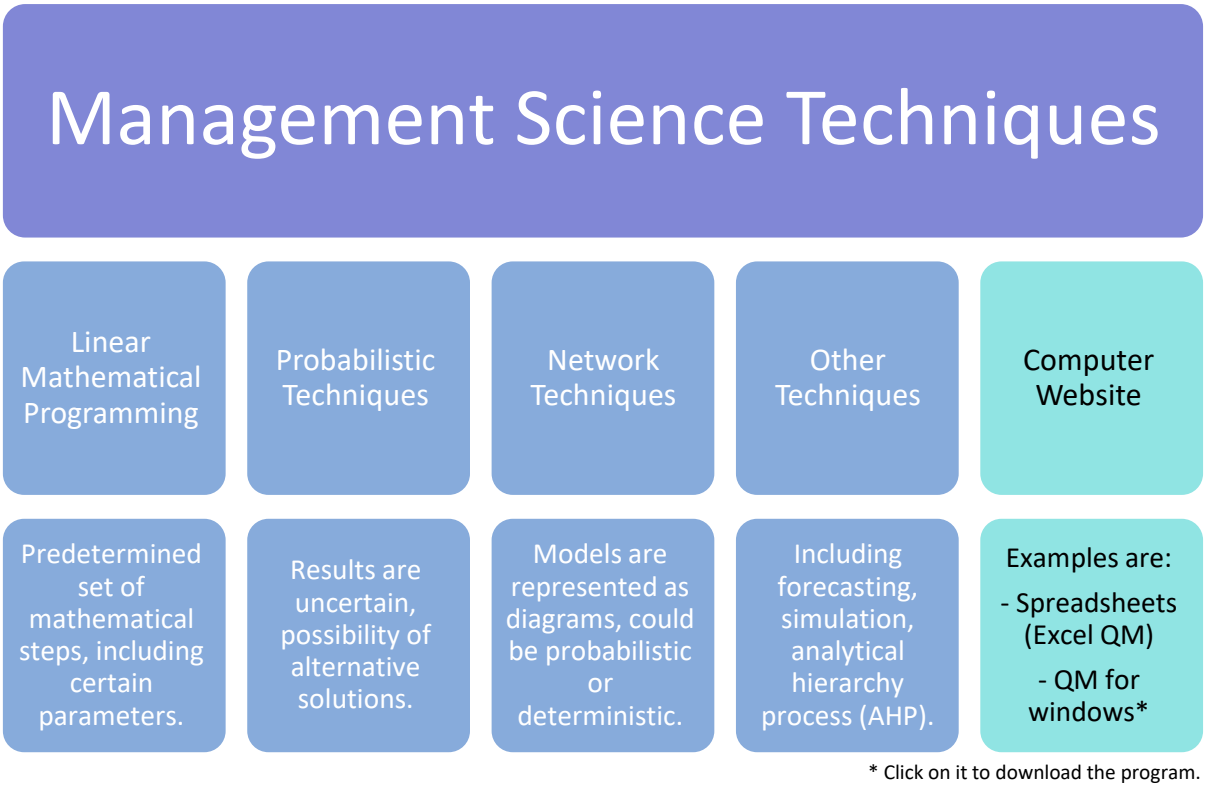
Variable Cost: cost related to the production of one unit.

Volume (Units): the number of products produced.

Total Cost: fixed cost – total variable cost.

Profit: price (selling price) – total cost.

As a..	**Variable Cost**	**Fixed Cost**
product	Constant per unit	Decrease as units increase
money	Increase as units increase	Constant through the production level



* Click on it to download the program.