

# THE FUNDAMENTALS OF EQUIPMENT ECONOMICS

## OVERVIEW

Mike Vorster is a well-known, respected thought-leader in the equipment management space, and the author of *Construction Equipment Economics*. Caterpillar has worked with Mike Vorster to bring to market **The Fundamentals of Equipment Economics** – a video-based training program designed to lower costs and improve business performance by building expertise in costing and lifecycle management.

This course teaches vital information that will help equipment managers and those involved in overseeing the equipment at their company accelerate their careers and drive increased value to their business. The course covers a diverse range of topics that will help individuals better approach business decisions.

## COURSE CONTENT

This course consists of eight main parts, each broken down into multiple sessions. There are 25 video sessions in total, each no longer than 20 minutes. Registrants will have the ability to complete the curriculum package at their leisure, within expected completion within 1 year of course enrollment.

## PREREQUISITE QUALIFICATIONS

This course is a good fit for aspiring professionals who meet the following criteria:

- Experience in an industry that relies on heavy equipment to drive revenue
- Has some level of influence in your company's decision to repair, rebuild or replace a machine
- Has a solid understanding and/or curiosity about the following topics:
  - Operating costs and owning costs
  - Managing equipment lifecycle cycle and optimum fleet age
  - When to repair/rebuild/replace a machine
- Is looking to expand your knowledge of equipment management topics to drive increased value to your company's business
- Is part of a company that is open to adopting new practices to better manage major equipment decisions

## COURSE MASTERY MATERIALS

- Study Guide
  - To help guide learning, registrants will have access to a printable, downloadable study guide.
- Post-Chapter Quizzes
  - At the end of each section, users will be prompted to complete a quiz to prove their mastery of the course content following each of the eight course chapters.
  - A score of 80% or higher is required for passing.
  - Quizzes can be taken more than once in order to achieve a passing score.

## COURSE LAYOUT:

Chapter / Session Details	Video Length
<b>Part 0: Overview</b>	12:39
<b>Part 1: Management Topics</b>	
Session 1 - Four Critical Success Factors	12:34
Session 2 - Six Basic Functions	7:49
Session 3 - Organization Structure	15:30
Session 4 - The Flow of Funds	14:00
<b>Part 2: Owning and Operating Costs</b>	
Session 1 - Definitions/Characteristics	7:36
Session 2 - The Risks/How to Use the Differences	8:54
<b>Part 3: Owning Costs</b>	
Session 1 - Owning Cost Categories // Administrative and Finance Costs	10:07
Session 2 - Depreciation and Interest Charges	19:36
Session 3 - Residual Market Value	11:21
Session 4 - Gain or Loss on Sale // Owning Cost per Hour and Life	11:31
<b>Part 4: Operating Costs</b>	
Session 1 – Operating Cost Categories // Relatively Constant Categories	11:24
Session 2 – Repair Parts and Labor // The RPL Curve	21:32
Session 3 – Estimating from First Principles/Operating Cost per Hour and Life	10:06
<b>Part 5: Rate and Cost Management</b>	
Session 1 – Why Have a Rate? // Calculating a Rate	15:17
Session 2 – Cost Control Principles // Streamline the Equipment Account	11:14
Session 3 – The Impact of Utilization // Utilization and Job Charges	20:31
<b>Part 6: Economic Life and Minimum Cost</b>	
Session 1 – Economic Life and Minimum Lifecycle Cost // What are the Key Variables?	17:26
Session 2 – The Cumulative Cost Model // The Churn Chart	19:29
Session 3 – The Repair/Rebuild/Replace Decision	15:17
<b>Part 7: Reliability</b>	
Session 1 – Inspection and Prevention // Reliability and Availability	17:33
Session 2 – The Bathtub Curve // Delta, KPIs and Graphics	13:08
Session 3 – Age, Cost and Reliability	8:57
<b>Part 8: The Fundamentals</b>	
Session 1 – Understand the Stakeholder Needs // Define the Quantitative Tools	10:28
Session 2 – Move the Needle // Find and Attack the Causes of Cost	11:04

## CONTACT INFORMATION

For questions regarding the course, contact:

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