

## Online Lectures for the CRE Class

How to Use the Alpha TC Website (17:20)

**CRE Introduction** 

How to sign up for an ASQ exam (7:09)

Test Taking Strategies Module I and critical stacks (58:33)

Test Taking Strategy Module II (1:06:08)

**Memory Maps (Flow Charts)** 

Introduction to Transformation (1:30:48)

Fundamental Theories (Rev B) (1:05:28)

Fundamentals and Project Selection (1:30:17)

Central Limit Theorem (1:03:00)

Deming Story (36:48)

Variables Data SPC (X bar R) (1:11:22)

X-Bar R-SPC Spreadsheet (21:16)

**Fundamental Quality Tools (32:59)** 

Short Run SPC (32:24)

Measurement Systems Analysis (MSA)(1:20:18)

Median Chart SPC (18:23)

X Bar S Chart SPC (05:25)

p and np Chart SPC (49:18)

U and C Chart SPC (25:11)

**Controlling Processes (1:04:22)** 

Risk Management (41:23)

Capability Study (1:09:04)

Z Statistic Capability (24:45)

**Probability Statistics (32:21)** 

Permutations and Combinations (15:40)

Non Normal Distributions (1:06:14)

Z Statistic Inference (Sigma Changes) (1:15:49)

t Statistic Inference (26:55)

**Inference Paired t Test (9:15)** 

Confidence Intervals for the Mean (20:31)

Confidence Interval of Variance (6:25)

**Confidence Intervals for Proportions (5:30)** 

Uncertainty-Analysis (47:11)

Hypothesis Testing (23:48)

F Statistic Inference (35:02)

Chi Squared Inference (45:21)

**ANOVA Inference (47:49)** 

**Inference Studies for Proportions (8:40)** 

**Linear Regression Analysis (49:29)** 

Correlation Analysis (17:07)

**Statistical Analysis in Linear Regression (36:45)** 

Linear Regression Example (28:39)

Reliability Engineering (Bathtub Curve) (24:11)

Reliability Engineering (Vocabulary) (29:02)

Reliability Engineering (Block Diagrams)(21:41)

Standby Parallel Systems (use Spreadsheet) (22:13)

Introduction to Statistical Design of Experiments (DOE)(1:17:00)

Full Factorial Design of Experiments (DOE)(51:25)

Fractional Factorial Design of Experiments (24:26)

**Screening Design of Experiments (8:13)** 

Taguchi Design of Experiments (34:50)

DOE Latin Square Designs (6:33)

DFSS IDOV, DMADV and DMADOV (1 of 7)(1:04:18)

DFSS Design for X, French Model (2 of 7)(31:31)

**DFSS Taguchi Module (3 of 7)(1:21:00)** 

**DFSS Porter's 5 Competitive Forces (4 of 7) (20:55)** 

DFSS Portfolio and Set Based (5 of 7) (26:55)

**DFSS TRIZ (6 of 7) (27:28)** 

DFSS Sys Design, CPM, Pugh Analysis (7 of 7) (26:33)

**Chapter 2 CRE Test Review** 

**Chapter 3 CRE Test Review** 

**Chapter 4 CRE Test Review** 

**Chapter 5 CRE Test Review** 

**Chapter 6 CRE Test Review** 

**Chapter 7 CRE Test Review** 

**Chapter 8 CRE Test Review** 

**Chapter 9 CRE Test Review** 

**CRE Practice Exam** 

**CRE Final Exam**