

## Minitab Public Training 2012 in Hong Kong

- Course:** Minitab Statistical Software, Manufacturing (Advanced Level)
- Date:** 17 – 18 & 20 – 21 April, 2012. (Tue, Wed, Fri, Sat. - 4 full days)
- Time:** 9:00a.m. – 5:00p.m.
- Location:** Six Sigma Institute Ltd.  
Unit 1627, 16/F, Star House, 3 Salisbury Road,  
Tsim Sha Tsui, Kowloon. **(Computers will be provided)**
- Course fee for 4 days:** HK\$11,700.00 (US\$1,500.00)  
*Minitab regular price: US\$1,700.00*  
**Includes:** lunch, attendance certificate & training materials
- Discount:** **Early Bird Special** – *Deadline: 18 March, 2012.*  
Receive a **10% discount** if registered and pre-paid by deadline.  
**Group Special** – *Deadline: 12 April, 2012.*  
Receive a **5% discount** for a group of three or more from the same company.
- Minitab Trainer:** Dr. Scott Kowalski  
<http://www.minitab.com/en-US/training/instructor-led/trainers.aspx>
- Language:** English

### Who should attend

Minitab Statistical software users, Green Belts, Black Belts, Supervisor, Managers, Engineers, Executives, Manufacturing Quality concerned personnel and anyone who wants a better understanding of statistical procedures and application.

### Course Overview

- Day 1:** Advanced Regression and ANOVA 9:00a.m. to 5:00p.m. Tuesday, 17 April, 2012.
- Day 2:** DOE in Practice 9:00a.m. to 5:00p.m. Wednesday, 18 April, 2012.
- Day 3:** Response Surface Designs 9:00a.m. to 5:00p.m. Friday, 20 April, 2012.
- Day 4:** Formulations and Mixture Designs 9:00a.m. to 5:00p.m. Saturday, 21 April, 2012.

## Course Descriptions

### Day 1 – Advanced Regression and ANOVA

Continue to build on the fundamental statistical analysis concepts taught in the Basic Statistics course by learning additional statistical modeling tools that help to uncover and describe relationships between variables. Hands-on examples illuminate how modeling tools help reveal key inputs and sources of variation in your processes. Learn how to use statistical models to investigate how processes may behave under varying conditions. This course provides techniques to help you better understand your processes and to focus and verify your improvement efforts.

**Topics covered in the training material include:** Multiple and Stepwise Regression; GLM with Covariates, Nesting and Random Factors; MANOVA; Binary and Nominal Logistic Regression

**Prerequisites:** *Introduction to Minitab and Basic Statistics*

### Day 2 – DOE in Practice

Learn how to handle common DOE scenarios where classic factorial or response surface design and analysis techniques are neither appropriate nor possible due to the nature of the response variable or the data collection process. Develop techniques for experimental situations often encountered in practice such as missing data and hard-to-change factors. Understand how to account for variables (covariates) that may affect the response but cannot be controlled in the experiment. Explore the opportunities to minimize costs or variability while simultaneously optimizing an important product or process characteristic. Learn how to find and quantify the effect that factors have on the probability of a critical event, such as a defect, occurring.

**Topics covered in the training material include:** ANCOVA, Unbalanced Designs, Split-Plot Designs, Multiple Response Optimization, Binary Logistic Regression

**Prerequisites:** *Introduction to Minitab, Basic Statistics, and Factorial Designs*

### Day 3 – Response Surface Designs

Expand your knowledge of basic 2 level full and fractional factorial designs to those that are ideal for process optimization. Learn how to use Minitab's DOE interface to create response surface designs, analyze experimental results, and find optimal factor settings. Learn how to experiment in the real world by using techniques such as sequential experimentation that balance the discovery of critical process information while being sensitive to the resources required to obtain that information. Learn how to find factor settings that simultaneously optimize multiple responses.

**Topics covered in the training material include:** Central Composite and Box-Behnken Designs, Calculations for Steepest Ascent, Overlaid Contour Plots, Multiple Response Optimization

**Prerequisites:** *Introduction to Minitab, Basic Statistics, and Factorial Designs*

### Day 4 – Formulations and Mixture Designs

Learn the principles of designing experiments and analyzing the resulting data for processes that are comprised of the mixing and blending of ingredients such as those commonly found in the chemical, food, and beverage industries. By utilizing Minitab's easy to understand interface, create experiments designed to study and uncover important process information related to mixture processes with the minimal amount of experimental resources. Learn how to interpret graphical and statistical output to understand a mixture's blending properties and to choose the appropriate mixture of ingredients needed to optimize one or more critical process characteristics.

**Topics covered in the training material include:** Simplex Lattice and Centroid Designs, Upper and Lower Constraints, Extreme Vertices Designs, Pseudocomponents, Response Trace Plots, Mixtures with Process Variables, Mixture Amounts

**Prerequisites:** *Introduction to Minitab, Basic Statistics, and Factorial Designs*

**Course Registration**

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<b>Date &amp; Time</b>	:	17 – 18 & 20 – 21 April, 2012, 9:00a.m. – 5:00p.m. ( <b>4 full days</b> )
<b>Venue</b>	:	Six Sigma Institute Ltd. Unit 1627, 16/F, Star House, 3 Salisbury Road, Tsim Sha Tsui, Kowloon. ( <b>Computers will be provided</b> )
<b>Course Fee for 4 days</b>	:	HK\$11,700.00 (US\$1,500.00) <i>Minitab regular price: US\$1,700.00</i> <b>Includes:</b> lunch, attendance certificate & training materials
<b>Discount</b>	:	<b>Early Bird Special</b> - Receive a <b>10% discount</b> if registered and pre-paid by deadline. <b>Deadline: 18 March, 2012.</b>  <b>Group Special</b> - Receive a <b>5% discount</b> for a group of three or more from the same company. <b>Deadline: 12 April, 2012.</b>

First Name : \_\_\_\_\_

Last Name : \_\_\_\_\_

Title : \_\_\_\_\_

Organization : \_\_\_\_\_

Department : \_\_\_\_\_

Address : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tel : \_\_\_\_\_

Fax : \_\_\_\_\_

E-mail : \_\_\_\_\_

**For enquiries**, please feel free to contact Miss Iza Ng on (852) 3520 0520 and/or email your questions to [iza.ng@techmax.com.hk](mailto:iza.ng@techmax.com.hk).

**Registration Methods**

Please complete the course registration form and return to us by fax (fax# 852.3520.0550) or email to [training@techmax.com.hk](mailto:training@techmax.com.hk). Upon receipt of this course registration form, Techmax will send the applicant an acknowledgement of registration by email.

**Method of payment:**

Please send payment by cheque made payable to "Techmax Information Technology (HK) Limited", to 703 Hang Bong Commercial Centre, 28 Shanghai Street, Kowloon, Hong Kong. Attn: Miss Iza Ng.

**Please note:**

- 1) Full payment must be received in advance of the course. The reservation will be cancelled if there is no provision of evidence that the course fee is paid on or before 12 April, 2012; for Early Bird Special applicants, please pre-paid by 18 March, 2012.
- 2) Cancellation Policy for applicant who withdraws the course with any reason prior to the class.
  - More than 3 weeks prior to the class, the applicant receives a full refund.
  - Between 2 – 3 weeks prior to the class, the applicant receives a 50% refund.
  - Less than 2 weeks prior to the class, the applicant receives no refund.
- 3) An applicant may nominate a person to attend the course on his/her behalf (should notify Techmax prior to the class)
- 4) Techmax reserves the right to change the venue and/or time as necessary.
- 5) Techmax reserves the right to postpone the training if typhoon signal no. 8 or above OR black rainstorm warning is hoisted. Applicants will be notified when the class will be made up OR when the course fee will be refunded.