

**The Department of Industrial Engineering at the Nelson  
Mandela Metropolitan University will be presenting a  
“Quality Assurance Short Learning Programme” in 2013.**

**Purpose of the Course**

This course aims to prepare quality practitioners to integrate theory, principles and practical components of quality assurance to effectively plan and monitor quality in a competitive manufacturing environment.

**This short course is offered primarily to employees in industry who are working in either Quality Assurance or Production. The course content with its assessment standard is benchmarked to the City & Guilds of London Institute Quality Control qualification and students that successfully completed it can be considered to be on par with those that completed City and Guilds.**

**Learning Outcomes**

***After the completion of this course the learner will be able to:***

- Explain the importance of quality
- Use cost of quality information to analyse and set quality targets
- Apply probabilities in quality analysis
- Apply relevant quality techniques to analyse quality related data for improvement purposes
- Apply SPC to monitor and control processes
- Apply techniques for the integrated planning and improvement of quality
- Application and integration of management skills to monitor project progress against the plan
- Explain elements of human motivation and behaviour that drives quality.

**Course Content**

|    |                        |     |   |
|----|------------------------|-----|---|
| 1. | Overview of Quality    | 7.  | Reliability                             |
| 2. | Probability Theory     | 8.  | TQM and Quality Models                  |
| 3. | Frequency Distribution | 9.  | Quality Systems Implementation          |
| 4. | Sampling Distribution  | 10. | Problem Solving                         |
| 5. | SPC                    | 11. | Computer Applications                   |
| 6. | Planning & Improvement | 12. | Control Charts – Variable and Attribute |

## Rules & Regulations:

- Lectures start promptly at 17:30.
- A weekly attendance register is signed by students for feedback to the sponsor.
- 2 x preparatory exams, each with duration of 90 minutes. Each one contributes 50% to the class mark. A subminimum of 40% for the class mark is required to be able to write the final exam.
- Plus 1 x 3 hour final examination, leading to a final mark which consists of a 40% class mark + 60% examination mark.
- Marks are weighted (see schedule). This means that good marks for the test will help the student to face the finals with confidence.

|                 |                         |                               |
|-----------------|-------------------------|-------------------------------|
| <b>Pass 50%</b> | <b>Credit 51% - 74%</b> | <b>Distinction 75% - 100%</b> |
|-----------------|-------------------------|-------------------------------|

- Please communicate all administrative matters via Zandra Kolesky.
- Mr Roodt may be contacted via e-mail ([Piet.Roodt@nmmu.ac.za](mailto:Piet.Roodt@nmmu.ac.za)) regarding the subject matter.
- You are encouraged to study regularly and refer to old examination papers for examples of questions.
- Payment must be made before the commencement of the course.
- This course is not recommended for shift workers, as class attendance is critical for successful completion.

We wish you all the best with this course. It is a challenging and demanding course, but achieving success will make it worth all your time and effort. Your company will be proud of you, and you will add tremendous value at your place of employment.

**Registration & Payment:**

|                      |   |
|----------------------|---|
| <b>Start</b>         | <b>14 May 2013 (for 17 weeks)</b>   |
| <b>Cost</b>          | <b>R 7 900</b>  |
| <b>Prerequisites</b> | <b>Matric Certificate with a pass in Mathematics<br/>2 years experience in Operations/Production/Quality<br/>Environment</b>                                |
| <b>Payments</b>      | <b>Cost Includes:<br/>Set of notes<br/>Textbook<br/>Calculator</b>  |
| <b>Venue</b>         | <b>M047<br/>NMMU<br/>North Campus</b>   |
| <b>Lecturer</b>      | <b>Mr Piet Roodt<br/>NMMU QA</b>  |
| <b>Time</b>          | <b>Thursdays<br/>17:30 – 20:00</b>  |
| <b>Contact</b>       | <b>Zandra Kolesky<br/>(Tel) 041 504 3967<br/>(Fax) 041 504 9645<br/>(E-mail) <a href="mailto:Zandra.kolesky2@nmmu.ac.za">Zandra.kolesky2@nmmu.ac.za</a></b> |

