

Quality and Reliability Engineering (ISYE 311)

Coursework Assessment

Individual Coursework

Out: 8th of September 2022

Due: Final full paper submission – 3rd of October 2022 (Monday) before 4 pm. You may submit either a hardcopy or soft copy before the deadline.

Contribution to overall course mark: 25%

You have been asked to write a short-featured article for an **industrial engineering professional magazine** (e.g.: ISE). The article should be based on research and you may use **relevant journal papers** for the article. The prime requirement will be that it:

- a. is directly relevant to Quality Engineering topics;
- b. is within the scope of the course coverage

Background to the Coursework

Quality Improvement tools play an important role for many quality and non-quality professionals in organisations today, especially for problem-solving scenarios. There are seven basic tools widely reported in the extant literature developed by Dr Kaoru Ishikawa. The purpose of your individual coursework **is to pick one of the seven tools** and try to answer the following questions highlighted below.

- *What is the tool you have chosen to explore and define the tool in simple terms?*
- *What are the real benefits of the tool you have chosen? This could be derived from the analysis of a few case studies from the literature. Please supply the sources you have used for evidence purposes. You may use bullet points if you like for this question.*
- *What are the pros and cons of this tool you have chosen to study?*
- *Explain how the tool you have chosen can be applied in Khalifa University?*

- *Finally, what are the key lessons learned from the coursework?*

The article should be around **1000 words (plus or minus 200 words) in length.** Figures and Tables should be of clear quality and they should be numbered consecutively with Roman Numerals. The titles for both figures and tables should be provided. References must be in Harvard Style and carefully checked for completeness, accuracy and consistency.

For Journals: surname, initials, (year), "article title", Journal title, Volume number, Issue number, page numbers.

Example: Fox, S. (1994), "Empowerment as a catalyst for change: an example from the food industry", Supply Chain Management, Vol.2, No.3, pp. 29-33.

For books: Surname, initials, (year), book title, publisher, place of publication.

Example: Johnston, R and Clark, M. (2001), Service Operations Management, Prentice-Hall, Edinburgh.

Note: It is strongly advised not to rely too much on web-based articles or information downloaded from the internet. You may download journal articles from Khalifa University library facilities. **It is recommended to use a minimum of five journal articles for your featured article.** Also use published textbooks or conference papers but these should be on the top of five journal articles.

Note 2: Make whatever suggestions you think are sensible or practical based upon what information you have. You are not expected to be able to solve the problems, if any.

All assessments should be submitted in accordance with University regulations, giving full name, student registration number, programme details and course details. **The coursework should be submitted no later than the date given above.**