



COURSE OVERVIEW GE0751
Big Data Analysis

Course Title
Big Data Analysis

Course Reference
GE0751

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs



Course Date/Venue

Session(s)	Dates	Venue
1	February 04-08, 2024	Business Center, Concorde Hotel Doha, Doha, Qatar
2	May 13-17, 2024	Ajman Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
3	August 11-15, 2024	Jubail Hall, Signature Al Khobar Hotel, Al Khobar, KSA
4	November 10-14, 2024	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using “MS Excel” applications.

This course is designed to provide participants with a detailed and up-to-date overview of advanced data analysis. It covers the science and business operational decision analysis; the importance and benefits of utilizing quantitative data analysis for business decision making; the benefits of using MS excel for data analysis and other programs; the rules of probability, probabilities of joint event, reliability engineering and systems, parallel systems, conditional probabilities and Bayes theorem; and calculating probabilities, analysing and testing data using applied statistics.



During this interactive course, participants will learn the statistical basics and comparison based on central tendency; measuring variability and spread; the optimal production loadings and workforce scheduling; using control charts for quality control; the Six Sigma quality and customizing and reporting variable for all stakeholders; the on-line dashboards at multiple levels available for knowledge sharing; monitoring data overtime for progress reporting and trend evaluation; the experiments and the scientific method; the experimental design principles; the one factor-at-a-time versus designed experiments; and the guidelines for designing experiments.



Course Objectives

Upon the successful completion of the course, each participant will be able to:-

- Apply and gain an advanced knowledge on data analysis
- Compare data analysis, science and business operational decision analysis
- Discuss the importance and benefits of utilizing quantitative data analysis for business decision making
- Identify the benefits of using MS excel for data analysis and other programs
- Recognize the rules probability rules of probability, probabilities of joint event, reliability engineering and systems, parallel systems, conditional probabilities and Bayes theorem
- Calculate probabilities, analyze and test data using applied statistics as well as discuss statistical basics and comparison based on central tendency
- Measure variability and spread, determine optimal production loadings and optimize workforce scheduling
- Use control charts for quality control and apply six sigma quality and data analysis tools that enable views by cluster, region, industry and function type
- Customized Ad hoc reporting variable for all stakeholders and use on-line dashboards at multiple levels available for knowledge sharing
- Monitor data overtime for progress reporting and trend evaluation
- Carryout experiments and scientific method and explain experimental design principles
- Differentiate one factor-at-a-time versus designed experiments and review guidelines for designing experiments

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an advanced overview of all significant aspects and considerations of data analysis for specialists, section heads and managers from any discipline.

Course Fee

Doha	US\$ 6,500 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Abu Dhabi	US\$ 5,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar	US\$ 5,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	US\$ 5,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.



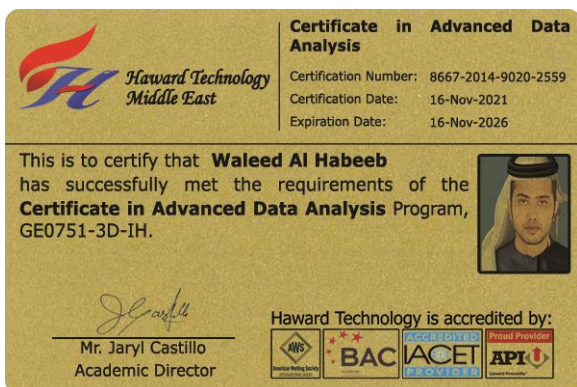
Course Certificate(s)

- (1) Internationally recognized Wall Competency Certificates and Plastic Wallet Card Certificates will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants:-





- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *



Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEUs

CEU Official Transcript of Records

TOR Issuance Date: 16-Nov-21

HTME No. 8667-2014-9020-2559

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
GE0751-3D-IH	Certificate in Advanced Data Analysis	November 14-16, 2021	16.5	1.65

Total No. of CEU's Earned as of TOR Issuance Date **1.65**

TRUE COPY



Jaryl Castillo
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by




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Certificate Accreditations


Certificates are accredited by the following international accreditation organizations: -

- 
The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

Training Methodology

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Workshops & Work Presentations
- 30% Case Studies & Practical Exercises
- 20% Software, Simulators & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.



Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Kyle Bester is a **Senior Water Engineer** with extensive years of practical experience within the **Oil & Gas, Power & Water Utilities** and other **Energy** sectors. His expertise includes **Water Reservoir, Water Tanks, Water Pumping Station, Water Distribution System, Water Network System, Water Pipes & Fittings, Water Hydraulic Modelling, Water Storage Reservoir, Operation & Maintenance of Water Networks, Hydraulic Modelling for Water Network Design, Reservoirs & Pumping Stations Design & Operation, Pumping Systems, Interconnecting Pipelines, Water Network Hydraulic Simulation Modelling, Water Supply Design, Water Balance Modelling, Water Distribution Network, Water Network System Analysis, Water Forecasts Demand, Water Pipelines Materials & Fittings, Water Network System Design, Pump Houses & Booster Pumping Stations, Potable Water Transmission, Water Distribution Network, Districts Meters Areas (DMAs), Water Supply & Desalination Plants Rehabilitation, Water Reservoirs & Pumping Stations, Water Network System Extension, Water Network System Replacement & Upgrade, Water Networks Optimization, Water Supply & Distribution Systems Efficiency & Effectiveness, Pipe Materials & Fittings, Service Reservoir Design & Operation, Pipes & Fittings, Water Network System Design & Operation, Supply Water Network Rehabilitation, Water Loss Reduction, Main Water System Construction, Main Water Line Construction, Transmission & Distribution Pipelines, Water Distribution Design & Modelling, Water Supply System, Oilfield Water Treatment, Best Practice in Sewage & Industrial Wastewater Treatment & Environmental Protection, Water Distribution Design & Modelling, Desilting, Treating & Handling Oily Water, Water Chemistry for Power Plant, Water Sector Orientation, Environmental Impact Assessment (EIA), Potable Water, Reverse Osmosis Treatment Technology and Chlorination System, Well Inventory, Monitoring & Conservation, Qualitative Analysis of Soil & Ground Water, Water Networking, Hydraulic Modelling Systems, Pumping Stations, Centrifugal Pumps, Pipelines & Pumping, Water Reservoirs, Water Storage Tanks, Extended Activated Sludge Treatment, Sewage & Industrial Wastewater Treatment & Environmental Protection, Supervising & Monitoring Sewage Works, Water Desalination Technologies, Water Distribution & Pump Station, Best Water Equipment Selection & Inspection, Hydraulic Modelling for Water Network Design, Water Utility Industry, Water Desalination Technologies & New Development, Water Hydrology, Water Conveyors, Water Networks Rehabilitation. He is currently the **Part Owner & Manager** of Extreme Water SA wherein he manages, re-designed and commissioned a water and wastewater treatment plants.**

During his career life, Mr. Bester has gained his practical and field experience through his various significant positions and dedication as the **Project Manager, Asset Manager, Manager, Water Engineer, Supervisor, Team Leader, Analyst, Process Technician, Landscape Designer** and **Senior Instructor/Trainer** for various international companies, infrastructures, water and wastewater treatment plants from New Zealand, UK, Samoa, Zimbabwe and South Africa, just to name a few.

Mr. Bester holds a **Diploma in Wastewater Treatment** and a **National Certificate in Wastewater & Water Treatment**. Further, he is a **Certified Instructor/Trainer**, an **Approved Chemical Handler** and has delivered numerous courses, trainings, conferences, seminars and workshops internationally.





Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0900	Introduction to Data Analysis
0900 – 0930	Science & Business Operational Decision Analysis
0930 – 0945	Break
0945 – 1100	Importance & Benefits of Utilizing Quantitative Data Analysis for Business Decision Making
1100 – 1230	Benefits of Using MS Excel for Data Analysis & Other Programs
1230 – 1245	Break
1245 – 1420	Exercises: Comparing Two Groups of Data
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 – 0900	Exercises: MS Excel Toolpak Analysis (Simplified Analysis)
0900 – 0930	Rules of Probability
0930 – 0945	Break
0945 – 1100	Probabilities of Joint Events
1100 – 1230	Reliability Engineering & Systems
1230 – 1245	Break
1245 – 1330	Parallel Systems & Conditional Probabilities
1330 – 1420	Bayes Theorem & Calculating Probabilities
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0900	Analyzing & Testing Data Using Applied Statistics
0900 – 0930	Statistical Basics
0930 – 0945	Break
0945 – 1100	Comparison Based on Central Tendency
1100 – 1230	Measuring Variability & Spread
1230 – 1245	Break
1245 – 1330	Determine Optimal Production Loadings
1330 – 1420	Optimizing Workforce Scheduling
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0900	Using Control Charts for Quality Control
0900 – 0930	Six Sigma Quality
0930 – 0945	Break





0945 – 1100	<i>Data Analysis Tools that Enable Views by Cluster, Region, Industry, Function, Type</i>
1100 – 1230	<i>Customized & Ad Hoc Reporting Variable for All Stakeholders</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>On-Line Dashboards at Multiple Levels Available for Knowledge Sharing</i>
1420 – 1430	<i>Recap</i>
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 – 0800	<i>Monitoring Data Overtime for Progress Reporting & Trend Evaluation</i>
0800 – 0830	<i>Experiments & the Scientific Method</i>
0830 – 0845	<i>Break</i>
0845 – 0915	<i>Experimental Design Principles</i>
0915 – 0945	<i>One Factor-at-a-Time vs Designed Experiments</i>
0945 – 1030	<i>Guidelines for Designing Experiments</i>
1030 – 1045	<i>Course Conclusion</i>
1045 – 1145	COMPETENCY EXAM
1145 – 1200	<i>Presentation of Course Certificates</i>
1200	<i>Lunch & End of Course</i>

Simulators (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using “MS Excel”.

MS-Excel

Course Coordinator

Jaryl Castillo, Tel: +974 4423 1327, Email: jaryl@haward.org

