



COURSE OVERVIEW TM0677-3D **Applied Statistics for Business and Decision Making**

Course Title

Applied Statistics for Business and Decision Making

Course Date/Venue

September 14-16, 2026/Executive Boardroom B Meeting Room, InterContinental Abu Dhabi, Abu Dhabi, UAE

Course Reference

TM0677-3D

Course Duration/Credits

Three days/1.8 CEUs/18 PDHs



Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of Applied Statistics for Business and Decision Making. It covers the role of statistics in decision making, types of data and descriptive and inferential statistics; the data collection, sampling techniques, descriptive statistics and data visualization; the probability basics, probability distributions and sampling distributions; the confidence intervals, concept and interpretation and confidence levels; and the margin of error and business applications.



During this interactive course, participants will learn the hypothesis testing methods, correlation analysis and simple linear regression; the multiple regression analysis, time series analysis and decision analysis under uncertainty; the analysis of variance (ANOVA) covering comparing multiple groups, one-way ANOVA, assumptions of ANOVA and business use cases; and the data-driven decision making covering translating analysis into action, KPI analysis, dashboard interpretation and communicating insights to stakeholders.



Course Objectives/Outcomes & Benefits for the Participants

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

- Apply and gain an in-depth knowledge on applied statistics for business and decision making
- Discuss the role of statistics in decision making, types of data, descriptive and inferential statistics
- Carryout data collection and sampling techniques, descriptive statistics and data visualization
- Recognize probability basics, probability distributions and sampling distributions
- Explain confidence intervals including concept and interpretation, confidence levels, margin of error and business applications
- Apply hypothesis testing methods, correlation analysis and simple linear regression
- Employ multiple regression analysis, time series analysis and decision analysis under uncertainty
- Discuss analysis of variance (ANOVA) covering comparing multiple groups, one-way ANOVA, assumptions of ANOVA and business use cases
- Apply data-driven decision-making covering translating analysis into action, KPI analysis, dashboard interpretation and communicating insights to stakeholders

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 overview of all significant aspects and considerations of applied statistics for business and decision making for business analysts and decision-makers, managers and department heads, finance and operations professionals, marketing and sales analysts, HR and organizational development professionals, project managers and coordinators, data analysts and reporting professionals, quality assurance and continuous improvement specialists, entrepreneurs and business owners, anyone seeking to apply statistical methods to business analysis and strategic decision-making.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

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

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.



Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations:

-  British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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.

-  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 **1.8 CEUs** (Continuing Education Units) or **18 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.

Course Fee

US\$ 3,750 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

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. Pan Kosmidis, MSc, BSc, is a **Senior IT Specialist & Management Consultant** with almost **25** years of experience in the areas of **Applied Statistics** for **Business** and **Decision Making**, **Data Collection & Sampling Techniques**, **Correlation Analysis**, **Linear Regression**, Programming with **Python & Java Specialization**, Development Environment Setup for **Python & Java**, **Python Syntax & Data Types**, **Python** Control Structures, Sentiment Analysis using **Python**, Machine Learning with **Python**, Geoprocessing Scripts Using **Python**, Face Detection with

OpenCV in **Python**, **Programming**, **Data** Structures, Artificial Intelligence (**AI**), **Systems Modeling**, **Web Dev**, **Databases**, **Mobile Dev**, **Data Analytics** for Business Leaders, **Data Quality** Management, **IT Data** Architecture, **Data** Management & Analysis using **Excel®**, **Advanced Data** Analysis, **Microsoft Data** Analysis, **Microsoft Enterprise** Systems, **Microsoft Servers**, **Microsoft Hyper-V**, **Microsoft Exchange**, **Microsoft 365 Cloud** Services (Exchange Online, Teams, OneDrive), **Microsoft Azure & Hybrid Active Directory** Environments, **AI** Fundamentals, Effective & Interactive **Dashboards**, **Predictive Analytics** Concepts, Apply **AI** Algorithms, **AI-Driven** Predictive Maintenance, Data Storytelling with **AI Insights**, Integrating Real-Time **Data Ingestion**, and **Software Tools** such as **Python**, **Java**, **JavaScript/TypeScript**, **C#/.NET**, **PHP/Laravel**, **Node.js**, **HTML/CSS**, **SQL (RDBMS & NoSQL)**, **Redis**, **RabbitMQ**, **Kafka**, **Event Store**, **Docker**, **CI/CD**, **Git** and **Methodologies & Architecture** such as **Agile (Scrum, Kanban)**, **DDD**, **CQRS**, **Clean Architecture**, **Event Sourcing**, **SOLID**, **RESTful APIs** and **CI/CD Pipelines**. Further, he is also well-versed in **Business Management**, **Financial Marketing**, **Contract Negotiation**, **Crisis Management**, **Training Programme Design & Delivery**, **Project Management**, **Business & Team Leadership**, **Financial Analysis**, **Investment & Risk Management**, **Technical & Fundamental Analysis**, **Mentoring** and **Consultancy**.

During his career life, Mr. Kosmidis has gained his practical and field experience through his various significant positions and dedication as the **Business Development Operations Director**, **Enterprise Architect**, **IT Consultant**, **Educational Consultant & Instructor**, **Investment Analyst & Trader**, **University Lecturer**, **DevOps Engineer**, **Security & Crisis Management Instructor**, **IT Specialist**, **Software Developer** and **Senior Instructor/Trainer/Lecturer** from various companies and universities.

Mr. Kosmidis is currently taking up his **Master's** degree in **Data Analytics** and **Financial Technology** and he holds a **Bachelor's** degree with (Honours) in **Computer Science** and a **Bachelor's** degree in **Business Administration & Economics**. Further, he is a **Certified Instructor/Trainer** and has delivered numerous trainings, courses, workshops, conferences and seminars internationally.

Course Program

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

Day 1: Monday, 14th of September 2026

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to Statistics in Business Role of Statistics in Decision Making • Types of Data (Qualitative versus Quantitative) • Descriptive versus Inferential Statistics • Business Use Cases (Marketing, Finance, Operations)
0930 – 0945	Break
0945 – 1030	Data Collection & Sampling Techniques Primary versus Secondary Data • Sampling Methods (Random, Stratified, Cluster) • Sample Size Determination • Bias and Data Quality Issues
1030 – 1130	Descriptive Statistics Measures of Central Tendency (Mean, Median, Mode) • Measures of Dispersion (Range, Variance, Standard Deviation) • Skewness and Kurtosis • Interpretation in Business Context
1130 – 1215	Data Visualization Charts (Bar, Pie, Histogram, Boxplot) • Choosing the Right Visualization • Identifying Patterns and Outliers • Communicating Insights Visually
1215 – 1230	Break
1230 – 1330	Probability Basics Concepts of Probability • Conditional Probability • Independent and Dependent Events • Applications in Business Decisions
1330 – 1420	Basics of Probability Distributions Discrete versus Continuous Distributions • Binomial Distribution • Normal Distribution • Business Applications of Distributions
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day One

Day 2: Tuesday, 15th of September 2026

0730 – 0830	Sampling Distributions Concept of Sampling Distribution • Central Limit Theorem (CLT) • Standard Error • Implications for Decision Making
0830 – 0930	Confidence Intervals Concept and Interpretation • Confidence Levels • Margin of Error • Business Applications (Estimation)
0930 – 0945	Break
0945 – 1100	Hypothesis Testing Fundamentals Null and Alternative Hypotheses • Type I and Type II Errors • Significance Level (α) • Decision Rules

1100 – 1215	Hypothesis Testing Methods Z-Test and t-Test • One-Sample and Two-Sample Tests • Paired Tests • Real-World Business Examples
1215 – 1230	Break
1230 – 1330	Correlation Analysis Measuring Relationships (Pearson Correlation) • Strength and Direction of Relationships • Correlation versus Causation • Business Applications
1330 – 1420	Simple Linear Regression Regression Concepts • Equation of a Line • Interpreting Coefficients • Prediction and Forecasting
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3: Wednesday, 16th of September 2026

0730 – 0830	Multiple Regression Analysis Multiple Predictors • Model Building • Interpreting Coefficients • Applications in Business Forecasting
0830 – 0930	Time Series Analysis Trend, Seasonality, and Cycles • Moving Averages • Forecasting Techniques • Business Applications (Sales, Demand)
0930 – 0945	Break
0945 – 1100	Decision Analysis Under Uncertainty Decision Trees • Expected Value Concepts • Risk versus Return Analysis • Scenario Planning
1100 – 1215	ANOVA (Analysis of Variance) Comparing Multiple Groups • One-Way ANOVA • Assumptions of ANOVA • Business Use Cases
1215 – 1230	Break
1230 – 1300	Data-Driven Decision Making Translating Analysis into Action • KPI Analysis • Dashboard Interpretation • Communicating Insights to Stakeholders
1300 – 1345	Capstone Project & Practical Application Analyzing a Business Dataset • Applying Statistical Methods • Interpreting Results • Presenting Actionable Recommendations
1345 – 1400	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course



Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:



Course Coordinator

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