



## COURSE OVERVIEW TM0015 Statistical Analysis Using SPSS

### Course Title

Statistical Analysis Using SPSS

### Course Reference

TM0015

### Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



### Course Date/Venue

Session(s)	Date	Venue
1	July 28-August 01, 2025	Hampstead Meeting Room, Marriott London Regents Park, London, UK
2	September 15-19, 2025	TBA Meeting Room, JW Marriott Hotel Madrid, Madrid, Spain
3	November 23-27, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
4	January 05-09, 2026	TBA Meeting Room, Grand Hyatt Athens, Athens, Greece

### Course Description



***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***



The focus of this course is an introduction to the statistical component of SPSS. This is an application-oriented course and the approach is practical. You'll take a look at several statistical techniques and discuss situations in which you would use each technique, the assumptions made by each method, how to set up the analysis using SPSS as well as how to interpret the results. This includes a broad range of techniques for exploring and summarizing data, as well as investigating and testing underlying relationships. You will gain an understanding of when and why to use these various techniques as well as how to apply them with confidence, and interpret their output, and graphically display the results using SPSS.



This course is designed to provide participants with a detailed and up-to-date overview of statistical analysis using SPSS. It covers the principles of research design and process; the data cleaning and preparation using the add-on data preparation module; the categorical data and summarize continuous data; measuring central tendency and dispersion; checking the form of distribution; the probability, inferential statistics and categorical variables; interpreting the measures of association and the mean differences between groups through T Test; the bivariate plots, correlations and regression and multiple regression; and the main differences between groups through one-factor ANOVA.



### Course Objectives

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

- Apply and gain an in-depth knowledge and skills on statistical analysis using SPSS
- Recognize the principles of research design and process
- Practice data cleaning and preparation using the add-on data preparation module
- Describe categorical data and summarize continuous data
- Measure central tendency and dispersion and check the form of distribution
- Analyze probability and inferential statistics and compare categorical variables
- Interpret the measures of association and identify the mean differences between groups through T Test
- Apply bivariate plots and correlations and differentiate regression and multiple regression
- Identify the main differences between groups through one-factor ANOVA

### 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 aspect and considerations of statistical analysis using SPSS for those who have worked with SPSS for Windows and wants to become better versed in the statistical capabilities of SPSS for Windows. This course targets those with limited or no statistical background. The course is also an appropriate refresher for those whose main statistical experience was gained many years ago.

### 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.

### 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: -

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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**. 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.

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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.

### 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. Eric Matthews** is a **Senior Management Consultant** with almost **40 years** of extensive experience. His expertise includes **Statistical Analysis** using **SPSS**, **Leadership & Change Management**, **Talent Management**, **Survey Skills**, **Interviewing Skills**, **Interpersonal Skills**, **Communication Skills**, **Negotiation Skills**, **Presentation Skills**, **Manager Skills**, **Supervisory & Management Skills**, **Counselling Skills**, **Leadership Skills**, **Customer Satisfaction**, **Coaching & Mentoring**, **Team Building**, **Survey Format & Design**, **Survey Data Auditing & Tabulation**, **Human Resource Management (HRM)**, **Human Resource Development (HRD) Training**, **Quality Management System (QMS)**, **Change Management**, **Project Management**, **Contract Management**, **Business Management**, **Time Management**, **Performance Management**, **Performance Appraisal**, **Managing Problem Situations & Dealing With Difficult People**, **Leading Multicultural Teams & Managing Diversity**, **Lean Thinking and Six Sigma**, **360 Feedback Assessment**, **Strategic Leader**, **Strategic Decision Making** and **Creative Problem Solving & Decision Making**. Moreover, his experience includes **Construction Safety (STOP)**, **Process Safety Management (PSM)**, **Risk Management**, **Marine Risk Assessment**, **ISO 14001 (2004) Lead Auditor**, **OSHA**, **SHEQ**, **Industrial Hygiene**, **Confined Space Entry**, **Fall Protection**, **Work Permit & First Aid**, **Forklift Operations**, **Accident & Incident Prevention**, **Site Inspection**, **HSE Leadership**, **Safety Attitude** and **Industrial Plant Safety** as well as **Pneumatic**, **Control Systems** and **Logic Boards**. He is currently the **Managing Director** of **Ken Matthews & Associates Training Consultancy**. Further, he is a **Registered** and **Certified Trainer** where-in he is delivering various training and consultancy for trainers for so many years, an **Assessor**, **Moderator**, **Verifier** and **Program Designer & Developer** as well as an **Authorized Accreditation Advisor**.

During Mr. Matthews' career life, he has shared his knowledge and practical expertise through the continuous and numerous trainings internationally. He started his profession from various challenging positions such as the **Tooling Engineer**, **Mechanical Technician**, **Sea Going Engineer**, **Safety Officer**, **Senior Lecturer/Professor**, **College Mentorship Programme Head**, **Curriculum & Project Designer**, **Learning Material Developer**, **Management Consultant**, **Trainer & Assessor** and **Moderator & Verifier**.

Mr. Matthews has **Bachelor** degree in **Industrial & Organizational Psychology** with **Honours (Cum Laude)**. Further, he is a **Certified Instructor/Trainer**; a **Certified Trainer/Assessor** by the **City & Guilds of London Institute**; a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)**; a **Registered SETA Assessor/Moderator/Skills Coach** and an active member of the **British Institute of Works Managers** and **British Institute of Personnel Managers** and delivered innumerable trainings, courses, seminars and workshops worldwide.



**Course Fee**

London/Madrid/Athens	<b>US\$ 8,800</b> per Delegate + <b>VAT</b> . This rate includes H-STK <sup>®</sup> (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK <sup>®</sup> (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

**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	<i>Registration &amp; Coffee</i>
0800 – 0815	<i>Welcome &amp; Introduction</i>
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>Introduction to Statistical Analysis</b>
0930 – 0945	<i>Break</i>
0945 – 1100	<b>Principles of Research Design &amp; Process</b>
1100 – 1230	<b>Data Cleaning &amp; Preparation: Using the Add-on Data Preparation Module</b>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>SPSS Practical Exercise</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 2**

0730 – 0930	<b>Describing Categorical Data</b>
0930 – 0945	<i>Break</i>
0945 – 1100	<b>Summarizing Continuous Data</b>
1100 – 1230	<b>Measures of Central Tendency &amp; Dispersion</b>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>SPSS Practical Exercise (cont'd)</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 3**

0730 – 0930	<b>Checking the Form of Distribution</b>
0930 – 0945	<i>Break</i>
0945 – 1100	<b>Probability &amp; Inferential Statistics</b>
1100 – 1230	<b>Comparing Categorical Variables</b>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>SPSS Practical Exercise (cont'd)</b>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Three</i>



**Day 4**

0730 – 0930	<i>Measures of Association</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Mean Differences between Groups: T Test</i>
1100 – 1230	<i>Bivariate Plots &amp; Correlations</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>SPSS Practical Exercise (cont'd)</i>
1420 – 1430	<i>Recap</i>
1430	<i>Lunch &amp; End of Day Four</i>

**Day 5**

0730 – 0930	<i>Introduction to Regression</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Mean Differences between Groups: One-Factor ANOVA</i>
1100 – 1230	<i>Multiple Regression</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<i>SPSS Practical Exercise (cont'd)</i>
1400 – 1415	<i>POST-TEST</i>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch &amp; End of Course</i>

**Practical Sessions**

Practical session 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 the “Statistical Package for the Social Sciences (SPSS) Software”.

The screenshot displays the SPSS 'Interactive Output - Overall Model System' window. On the left, a complex network diagram titled 'Overall Model System' shows numerous nodes (KPI\_1 through KPI\_25, and Leverage1 through Leverage5) interconnected by a dense web of colored lines. On the right, a table titled 'Fit Statistics for All Models' provides statistical data for each model. The table includes columns for Model for Target, RMSE, RMSPE, AIC, BIC, and R Square.

Model for Target	RMSE	RMSPE	AIC	BIC	R Square
KPI_16	299.22	0.15	1,242.26	1,311.76	0.83
KPI_5	97.58	0.27	1,002.48	1,071.98	0.82
KPI_23	190.33	0.33	1,145.44	1,214.94	0.81
KPI_3	326.16	0.16	1,260.71	1,330.21	0.79
KPI_1	0.22	0.20	-301.69	-232.20	0.79
KPI_11	0.01	0.16	-1,013.54	-944.04	0.78
KPI_4	0.00	0.14	-1,123.96	-1,054.46	0.75
KPI_7	4,670.35	0.15	1,830.30	1,899.79	0.73
KPI_10	0.00	0.12	-1,181.04	-1,111.54	0.71
KPI_6	437.67	0.12	1,323.65	1,393.14	0.55
KPI_2	303.36	0.11	1,245.21	1,314.70	0.52
KPI_13	311.23	0.12	1,250.69	1,320.18	0.51
KPI_19	2,128,596.53	0.18	3,140.40	3,209.90	0.47
KPI_25	14.93	0.12	600.80	670.29	0.47
KPI_21	0.03	0.14	-738.06	-668.56	0.46
KPI_18	139,844.45	0.12	2,557.75	2,627.24	0.46
KPI_14	256.15	0.12	1,209.01	1,278.50	0.45
KPI_12	661.44	0.14	1,412.02	1,481.51	0.45
KPI_15	261.41	0.12	1,213.36	1,282.85	0.43
KPI_24	13.52	0.13	579.52	649.01	0.42
KPI_9	13.24	0.12	574.95	644.44	0.41
KPI_20	19,412.41	0.14	2,135.18	2,204.67	0.41
KPI_22	0.03	0.14	-718.20	-648.70	0.37
KPI_17	0.15	0.15	-383.19	-313.70	0.37

**Statistical Package for the Social Sciences (SPSS) Software**

**Course Coordinator**

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