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London School of Commerce In association with the University of Suffolk

**Assignment Brief**

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| Course/Programme: | BABS Foundation | | | |
| Level: | 3 | | | |
| Module Title: | **Numeracy and Data Analysis** | | | |
| Module Leader: | Dr. Uma Mohan | | | |
| Assignment title: | Data Analysis and Forecasting | | | |
| Assignment number: |  | | | |
| Weighting: | Individual Assignment : 30% of overall module grade  End of Term Exam : 70% of overall module grade | | | |
| Date given out: | **April 2020** | | | |
| Submission date: | **26th May 2020** | | | |
| Eligible for late submission (3 working days, with penalty)? | Yes / No | | | |
| Method of submission: | X | Online only |  | Online and paper copy |
| Special instructions for submission (if any): | Data Source to be specified. | | | |
| Date for results and feedback: |  | | | |
| Employability skills assessed: | * Applications of summarising and analysing data. * Logical Reasoning. * Ability to understand and apply forecasting techniques to real life situations. | | | |
| Learning outcomes assessed: | * Identify and apply techniques for summarising and analysing data. * Show reasonableness in the calculation of answers. * Demonstrate and analyse techniques used for forecasting. | | | |

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| Referencing**:** | In the main body of your submission you must provide correct Harvard references from where you collected weather data for ten days. Append to your submission a reference list that in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, title of book, edition, publisher: place of publication). |

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| **Assignment Mark** (Assessment marks are subject to ratification at the Assessment Board.  These comments and marks are to give feedback on module work and are for guidance only until they are confirmed. ) | **Late Submission Penalties (X if appropriate)** | | **Capped at** |
| Up 72 hours late | X | **40%** |
| Over 72 hours late |  | **100%** |

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| **TASK DESCRIPTION - INDIVIDUAL ASSIGNMENT: DATA ANALYSIS TECHNIQUES** |

**Assignment brief:**

You are required to collect **the number of hours of sleep per day** for **ten consecutive days** of your choice. You can easily collect the data manually or using an electronic tracker. Once you have collected the hours of sleep data for ten days, you are required to **prepare a report** undertaking followings:

1. Arrange the data in a **table** format. (5 marks)

2. Present the data using **any two types** of charts of your choice. Example: Column chart, bar chart, scatter plot, line chart, pictograms, histograms etc. (10 marks)

3. **Calculate and discuss** the followings. Please provide the **steps** for the calculation and **highlight the final value**.

1. Mean (8 marks)
2. Median (8 marks)
3. Mode (8 marks)
4. Range (8 marks)
5. Standard Deviation (13 marks)

4. For your data, use the linear forecasting model which is **y = mx + c** to **calculate and discuss** the followings:

1. Show the steps of calculation of **m** value and discuss the answer. (15 marks)
2. Show the steps of calculation of **c** value and discuss the answer. (15 marks)
3. Using the calculated 'm' and 'c' values, forecast the number of hours of sleep for **day 11 and day 15**. (10 marks)

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| **Length Required** |

Approximately 1000 words

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| **Formatting and Layout** |

Please note the following when completing your written assignment:

1. **Writing:** Written in English using appropriate business/academic style
2. **Focus:** Focus only on the tasks set in the assignment.
3. **Length:** Approximately1000 words
4. **Document format: Individual Assignment**
5. **Cover page** - Ensure a clear title, course, name and student ID number is on the cover sheet.
6. **Table of Contents** – Provide headings with appropriate page numbers.
7. **Main Body** - Attempt all the given tasks.
8. **Reference list** using Harvard Referencing Style.

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| **marking criteria and Student FEEDBACK – Assignment** |

This section details the assessment criteria. The *extent* to which these are demonstrated by you determines your mark. The marks available for each criterion are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

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| **Common Assessment Criteria Applied** | **Marks available** | **Marks**  **Marks Awarded** |
| ***Arrange the collected hours of aleep data in a table format*** | 5 |  |
| ***Present the data using any two type of charts***  ***(Presentation of each chart is awarded 5 marks)*** | 10 |  |
| ***Calculation and Discussion of followings:***  ***Mean***  ***Median***  ***Mode***  ***Range***  ***Standard Deviation*** | 8  8  8  8  13 |  |
| ***Calculation of Followings:***  ***Steps of calculation of 'm' value and discussion***  ***Steps of calculation of 'c' value and discussion***  ***Forecasting the number of hours of sleep of day 11***  ***Forecasting the number of hours of sleep of day 15*** | 15  15  5  5 |  |
| ***Total Marks*** | 100 |  |

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| LEVEL 3 INDICATIVE PERFORMANCE INDICATORS |

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| An outstanding Distinction | 90 - 100 | | Work which fulfils all the criteria of the grade below, but at an **exceptional** standard. |
| A very strong distinction | 80 - 89 | | Work of **distinguished** quality which is based on a rigorous and broad knowledge base, and demonstrating sustained ability to analyse, synthesise, evaluate and interpret concepts, principles and data within field of study, using defined principles, techniques and/or standard formats and applications. This will form the basis for the development of sound arguments and judgements appropriate to the field of study/ assessment task. There will be strong evidence of competence across a range of specialised skills, using them to plan, develop and evaluate problem solving strategies, and of the capability to operate autonomously and self-evaluate with guidance in varied structured contexts. Outputs will be communicated effectively, accurately and reliably. |
| A clear Distinction | 71 - 79 | | Work of **very good** quality which displays most but not all of the criteria for the grade above. |
| A Distinction | 70 | | Work of highly commendable quality which clearly fulfils the criteria for the grade below, but shows a **greater degree of capability** in relevant intellectual/subject/key skills. |
| A very strong Merit | 67 - 69 | | Work of **commendable** quality based on a strong factual/conceptual knowledge base for the field of study, including an assured grasp of concepts and principles, together with effective deployment of skills relevant to the discipline and assessment task. There will be clear evidence of analysis, synthesis, evaluation and application, and the ability to work effectively within defined guidelines to meet defined objectives. There will be consistent evidence of capability in all relevant subject based and key skills, including the ability to self-evaluate and work autonomously under guidance and to use effectively specified standard techniques in appropriate contexts. |
| A strong merit | 64 - 66 | | Work of **good** quality which contains most, but not all of the characteristics of the grade above. |
| A clear Merit | 61 - 63 | | Work which clearly fulfils all the criteria of the grade below, but shows **a greater degree of capability** in relevant intellectual/subject/key skills. |
| Merit | 60 | | Work of **sound** quality based on a firm factual/ conceptual knowledge base for the field of study, demonstrating a good grasp of relevant principles/concepts, together with the ability to organise and communicate effectively. The work may be rather standard, but will be mostly accurate and provide some evidence of the ability to analyse, synthesise, evaluate and apply standard methods/techniques, under guidance. There will be no serious omissions or inaccuracies. There will be good evidence of ability to take responsibility for own learning, to operate with limited autonomy in predictable defined contexts, selecting and using relevant techniques, and to demonstrate competence in relevant key skills. |
| A very strong Pass | 55 - 59 | | Work of **capable** quality which contains some of the characteristics of grade above. |
| A strong Pass | 50 - 54 | | Work of **satisfactory** quality demonstrating a reliable knowledge base and evidence of developed key skills and/or subject based skills, but containing limited evidence of analysis, synthesis, evaluation or application. |
| A Pass | 41 - 49 | | Work of **broadly satisfactory** quality covering adequately the factual and/or conceptual knowledge base of the field of study and appropriately presented and organised, but is primarily descriptive or derivative, with only occasional evidence of analysis, synthesis, evaluation or application. There may be some misunderstanding of key concepts/principles and limitations in the ability to select relevant material or techniques and/or in communication or other relevant skills, so that the work may include some errors, omissions or irrelevancies. There will be evidence of ability to operate with limited autonomy in predictable defined contexts, using standard techniques, and to meet threshold standards in relevant key skills. |
| A bare Pass | 40 | | Work of **bare pass** standard demonstrating some familiarity with and grasp of a factual/conceptual knowledge base for the field of study, together with evidence of some ability to employ specialist skills to solve problems within area of study, but only just meeting threshold standards in e.g. evaluation and interpretation of data and information, reasoning and soundness of judgment, communication, application, or quality of outputs. Work may be characterised by some significant errors, omissions or problems, but there will be sufficient evidence of development and competence to operate in specified contexts taking responsibility for the nature and quality of outputs. |
| A marginal Fail | | 30 - 39 | Work which indicates **some evidence of engagement** with area of study in relation to acquisition of knowledge and understanding of concepts and principles, and of specialist skills, but which is essentially misinterpreted, and misapplied and/or contains some significant omission or misunderstanding, or otherwise just fails to meet threshold standards in e.g. communication, application or quality of outputs. |
| A Fail | | 20 - 29 | Work that **falls well short of the threshold standards** in relation to one or more area of knowledge, intellectual, subject based or key skills. It may address the assessment task to some extent, or include evidence of successful engagement with some of the subject matter, but such satisfactory characteristics will be clearly outweighed by major deficiencies across remaining areas. |
| A comprehensive Fail | | 0 - 19 | Work of **poor quality** which is based on only minimal understanding, application or effort. It will offer only very limited evidence of familiarity with knowledge or skills appropriate to the field of study or task and/or demonstrate inadequate capability in key skills essential to the task concerned. |
| Non-submission/Nil attempt | | 0 | Nothing, or nothing of merit, presented. |