Course Title:	**Access to Higher Education Diploma**		
Unit Title:	Application of Number: Interpreting and Presenting Information	**Unit Code**	WJF324
Unit: Level:	3	**Credit Value:**	3 (UG)
Tutor Name:	Piyali Mandaland George Kinyanjui		
Student Name:	https://www.maturskiradovi.net		

Task Number: *(if applicable)*	1		
Task Title:	Investigating, Interpreting and Presenting Statistical data		
Date Set:	28.09.2020	**Date Due:**	18.01.2021
Extension Agreed:		**Date of Return to learner:**	08.02.2020
Date of Resubmission:		**Resubmission Return to learner:**	

Student declaration of authenticity

I confirm that the assignment I have submitted is all my own work and that it has been appropriately referenced in line with the centre policy on referencing of submissions of academic work	
Signature of student:	
Date submitted:	

WORK SUBMITTED AFTER THE DEADLINE WITHOUT AN AGREED EXTENSION OR APPROPRIATE MITIGATION WILL BE CONSIDERED FOR PASS ONLY

IV declaration

I agree this assignment brief is fit for purpose and assesses the identified criteria.			
IV Signature	*Tina King*	**Date:**	**25/09/2020**

Grade Profile Achieved for Assignment		**Final unit grade, if applicable [1]***	

[1]If there is more than one assignment for a unit, the final provisional grade for the unit cannot be awarded until all assignments have been completed, and this space should be left blank.

Learning Outcomes	Assessment Criteria	Assessment Criteria Met[2]
1 Obtain and interpret mathematical and statistical information	1.1. Within a complex task, identify and evaluate possible sources of data. 1.2. Justify the choice of data collection procedures giving reasons for choosing a particular sample and methods used. 1.3. Evaluate actual or possible sources of error in collecting and recording data. 1.4. Justify the chosen methods of recording data. 1.5. Interpret the main characteristics of data in relation to the task. 1.6. Work with large sets of data summarised into a grouped frequency table, calculating the mean, median, mode, range, inter-quartile range and standard deviation; interpret/make use of the standard deviation.	Y/N
2 Present mathematical and statistical information.	2.1. Choose and use a range of appropriate and effective techniques to present data accurately e.g. describe probability situation using tree diagrams; present and interpret upper and lower boundaries of results in histograms; calculate correlation coefficient or regression line for data plotted in a scatter diagram (bivariate data). This is in addition to any basic charts/graphs, which may be appropriate to the data. 2.2. Evaluate results including justify choice and use of presentation techniques and methods for the original purpose of the task.	Y/N

[2]Where an Assessment Criteria is judged to have not been met this will result in a 'resubmission' in accordance with the QAA Grade Scheme Regulations (See Section C for guidance on Resubmission of student work).

Description of Assessment Task (mapped to Assessment Criteria)

Commentary:

The assignment is a statistical data collection and analysis research task that will require students to identify a suitable area of statistical research. Learners will acquire and interpret data. They will also design and use suitable statistical data collection tools, collate and analyse data using mathematical methods and present their findings using effective statistical techniques.

Introduction and Hypothesis

Learners will research and identify an area of statistical research in a field of their interest. It could be a NHS data from NHS Data online, any temperature data from Gov.org online or any Business/Social related data from a reliable source.

Learners will research, identify and select the most appropriate mathematical tools they will require to carry out their statistical research.

1.1. Within a complex task, identify and evaluate possible sources of data.

1.2. Justify the choice of data collection procedures giving reasons for choosing a particular sample and methods used.

Data collection

Learners will select the most appropriate mathematical solutions to data collection, recording and summarising (questionnaires or surveys, tallies and frequency tables)

Reporting

Learners will present their findings using Mathematical graphs, charts, frequency polygons, Scatter graphs, cumulative curve and box plots.

Learner will calculate mean, median, mode, inter-quartile range, deviation, and simple probabilities.

Learner will also check the accuracy of their statistical calculations using graphs and charts

Learners will describe and analyse their findings

1.3 Evaluate actual or possible sources of error in collecting and recording data.

1.4. Justify the chosen methods of recording data.

1.5. Interpret the main characteristics of data in relation to the task.

Results and Discussion

Learners will discuss their statistical research findings and offer possible solutions based on their data analysis

Learners will offer some practical recommendations to the wider Health and Social Care community based on statistical justifications and conclusions form own research

1.6. Work with large sets of data summarised into a grouped frequency table, calculating the mean, median, mode, range, inter-quartile range and standard deviation; interpret/make use of the standard deviation.

2.1. Choose and use a range of appropriate and effective techniques to present data accurately e.g. describe probability situation using tree diagrams; present and interpret upper and lower

boundaries of results in histograms; calculate correlation coefficient or regression line for data plotted in a scatter diagram (bivariate data). This is in addition to any basic charts/graphs, which may be appropriate to the data.

Self-reflection

Learners will evaluate their research project identifying their strengths and areas for development

2.2. Evaluate results including justify choice and use of presentation techniques and methods for the original purpose of the task.

Assessor's comments

Tutor Feedback		
Individual feedback and targets for improvement and any comment in relation to resubmission (if appropriate): *Please also refer to the 'What this means for the assignment' boxes on page 3 in terms of understanding the rationale for the grade judgments allocated to the different Grade Descriptor Components.*	Areas for Improvement	Tick ✓
	Spelling	
	Punctuation	
	Grammar	
	Structure	
	Referencing	
	Signposting	
	Content	

Tutor Signature:		**Date:**	

Internally Moderated by: *(if applicable)*	
Date/s:	

Student Reflections / Planning in relation to Tutor Feedback (where appropriate):
Student Target Setting for Future Assessment (where appropriate):

Template for Research Project -Writeup & Results
INTERPRETING AND PRESENTING INFORMATION

1. All your Mathematical calculations and charts MUST be based on the data sets provided or own data that has been verified by Maths tutors. A copy of two different types of data set is in Moodle/Teams Class-notebook.

2. ALL MATHEMATICAL CALCULATIONS, GRAPHS AND CHARTS MUST BE DONE MANUALLY! NOT VIA ANELECTRONIC SPREADSHEET and SUBMITTEN IN TEAMS

Assessment Criteria	
1.	**Obtain and interpret mathematical and statistical information.**
1.1	Write about different types of research data (include the different sources as well): *Which of these are you using in your project? Give some real life examples of each*

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1.2	What are the different methods of collecting research data? Give reasons for using each of those methods used. *How do you think the data you are using might have being collected?*

1.3	Write about minimum 4 types of errors in collecting and recording data. Briefly explain each of them. *How do you think any errors have been avoided in the data you are using?*

1.4	Briefly write about different methods of RECORDNIG DATA (minimum 4 methods)- include advantages and disadvantages/ shortcomings of using these methods. *How do you think your project data recorded?*

1.5	*Mention some more characteristics of the datayou are using:* *- Was the data sampled, how?* *- How reliable?* *- How up to date?* *- any limitations?*

1.6	*- Summarise the large set of data into a grouped frequency table* *- calculate the mean, median, mode, range (where appropriate)*

	- find the inter-quartile range (from the graph) or standard deviation

2.	**Present Mathematical and Statistical information.**
2.1	*Choose and use a range of appropriate and effective techniques to present data accurately e.g:* *- present and interpret results in Histograms* *- Upper and lower Quartiles in a Cumulative curve* *- state the correlation and line of Best fit, if possible, for data plotted in a Scatter diagram* *These in addition to any basic charts/graphs, Bar graph or line graph which may be appropriate to the data.*

To be done manually on Graph paper/square paper, Pictures of all thosegraphs taken and uploaded onto Turnitin / Microsoft Teams-classnotebook

2.2	*Evaluation and Conclusion:* - *Briefly discuss the main findings in your project (What conclusions can you make from your charts and graphs)* - *Justify your choice of presenting (Were these the best methods in relation to the types of data? Why?)*