Assignment 1

Submit by 5pm Friday Week 6 (28/08/2020) via the Turnitin Submission point on L@G

(Weighting 12%)

PART 1.

Select ONE aspect of your project that lends itself to a hypothesis test (see below for examples) involving a test of a proportion **or** a test of independence.

State clearly:

i. the research question you will answer;
ii. the variable(s) you will use;
iii. the statistical hypotheses you will be testing.

Examples of the type of research question you might consider:

- Is the proportion of something more than a half when you would expect it to be a half?
- Is the proportion of something greater than (or less than) some available standard or expected value?
- Are two of your categorical variables dependent on each other? Does the distribution of one depend on which value of the other is being considered?

Maximum of one half of a single-sided A4 page

PART 2.

Present a summary of the variable(s) you will use in your hypothesis testing. The summary should include summary statistics and a graphical display, and should be concise and clear in its explanation.

You should not include analyses or graphics that you do not discuss in some way. For example, **R** outputs with no explanation are **not** acceptable; extract from such outputs the information that you feel is informative. Present your information in a way that is clear for the reader.

Maximum of two single-sided A4 pages

PART 3.

Carry out the hypothesis test (either by hand or using R) and present your answer.

If by hand, show all important working used to undertake this hypothesis test (e.g. the test statistic used, the expected values calculated and so on). **Full working must be shown to achieve full marks.** Be sure to include an interpretation of your results in everyday language.

If on R, show all important computer syntax (code) and output. Make reference to the relevant parts of the R output when interpreting your results. Be sure to include an interpretation of your results in everyday language.

Maximum of one single-sided A4 page plus relevant R output if applicable.

INCLUDE YOUR NAME, STUDENT NUMBER, AND SIGNATURE ON YOUR SUBMITTED WORK – USING A COVER PAGE WOULD BE A GOOD IDEA.