## KentVision Code and title of the module

SACO5000 Practical Data Analysis and Interpretation

## Division and School/Department or partner institution which will be responsible for management of the module

Division of Human and Social Sciences, School of Anthropology and Conservation

## The level of the module (Level 4, Level 5, Level 6 or Level 7)

Level 5

## The number of credits and the ECTS value which the module represents

15 credits (7.5 ECTS)

## Which term(s) the module is to be taught in (or other teaching pattern)

Autumn or Spring

## Prerequisite and co-requisite modules and/or any module restrictions

Cannot be taken with WCON5380 and ANTB5990

## The course(s) of study to which the module contributes

***Compulsory to:***

* BSc Wildlife Conservation
* BSc Human Biology and Behaviour
* Bio Anth pathway within the BSc Anthropology

***Optional on:***

* BSc Anthropology
* BA Environmental Social Sciences
* BA Environment and Sustainability
* BSc Human Geography

Not available as an elective module

## The intended subject specific learning outcomes. On successfully completing the module students will be able to:

8.1 Understand the theoretical normal distribution, null hypotheses, type I and II errors and their application to data analysis

8.2 Demonstrate an in-depth understanding of statistics and data handling, including use of appropriate computer software

8.3 Use parametric and non-parametric tests, including t-tests, Mann-Whitney, Chi-Square, Analysis of Variance (ANOVA), Kruskal-Wallis, regressions and correlations

8.4 Understand scientific methods including hypothesis building, data collection, data analysis, and critical interpretation.

## The intended generic learning outcomes. On successfully completing the module students will be able to:

9.1 Think critically

9.2 Communicate information through the development of writing and analytical skills

9.3 Manage their time to facilitate study and learning

9.4 Organise information in a clear way

9.5 Demonstrate skills in quantitative data handling and analysis.

## A synopsis of the curriculum

This module is designed to introduce and re-affirm statistical concepts, and their correct use. This module is delivered through combined lecture/practicals using computer software. Introductory topics will include types of data, descriptive statistics such as measures of central tendency, frequency distributions, the normal distribution, variance (standard error, standard deviation), and how sample parameters and null hypotheses apply in real data. Inferential statistics include analysis of differences between two groups (e.g. t-tests and non-parametric equivalents), differences between multiple groups (ANOVA and non-parametric equivalents), variable relationships (correlation and regression), and variable associations (e.g. chi-squared test). The role of probability in data analysis will also be considered, as will its application to scientific questions. Throughout, emphasis will be placed on practical application of statistics, and when and how they are applied. Students will be able link the theory presented with the practical sessions and data collection components. As such, students will collect and analyse their own data. By the end of the module, students will have a knowledge of the underlying principles of statistics, be able to conduct statistical tests in statistical software, critically evaluate the results, and have a sound appreciation of the benefits and limitations of different statistical techniques. This module provides students with the statistical knowledge to conduct in-depth data analysis for their final year research project.

## Reading list

The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

The most up to date reading list for each module can be found on the university's [reading list pages](https://kent.rl.talis.com/index.html).

## Contact Hours

Private Study: 126

Contact Hours: 24

Total: 150

## Assessment methods

13.1 Main assessment methods

Statistics worksheet (40%)

Full statistics write-up and paper (60%)

13.2 Reassessment methods

Reassessment Instrument: Like for Like

## Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section 12) and methods of assessment (section 13)

**Module learning outcomes against learning and teaching methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Private Study | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Practical sessions | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |

**Module learning outcomes against assessment methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Statistics worksheet | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Full statistics write-up and paper | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |

## Inclusive module design

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

## Campus(es) or centre(s) where module will be delivered

Canterbury

## Internationalisation

This module is agnostic with regard to internationalisation. As a ‘methods’ module, the skills taught are not restricted to any particular nation or region of the world; at the same time, an explicitly international dimension to the content would neither be appropriate nor feasible.

**DIVISIONAL USE ONLY**

**Module record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

| Date approved | New/Major/Minor revision | Start date of delivery of (revised) version | Section revised (if applicable) | Impacts PLOs (Q6 & 7 cover sheet) |
| --- | --- | --- | --- | --- |
| 16.11.22 | New | Sep-23 |  |  |
|  |  |  |  |  |