

FOOD 1052 Food Authenticity and Traceability 2024/25

Summative Assessment 2: Practical Report

Assessment Requirements:

Prepare a report on the practical:

Use of immunological test kits to determine species in meat and environmental samples

The report should cover the ELISA test and the flow through kits. The report should be prepared using the following format:

Introduction - including an explanation of the purpose of the experiment.

Materials and Methods - you do not need to write these out again – you can refer to the method sheet that you were provided with.

Results – present the results in a clear way. The best way to show your results would be in a table. You have been provided with a set of model data and you will have your own set of results. You can assume that the model results are correct and should therefore use them as the basis for your discussion. Please complete the table and interpretation of results for both the model results and your own set of results.

Discussion – in addition to a general discussion of the results, below you will find some points that can be discussed in relation to the results obtained.

References – citations and references to be presented in the format provided by Richard in the Research Methods module.

Points of Discussion

What species of animal did you detect in the samples that you tested? (Look at the protocol sheet on Moodle).

Did any of the samples contain more than one meat species?

How effective were the methods in determining the types of meat in the samples tested?

How did your results compare with the model results?

If you compare your data with the results provided, were there differences between the two sets of results? What could have been the reasons for this?

How did the Flow Through Tests compare with the ELISA kit?

How would these tests be used and how useful would they be in a commercial setting?

Why are meat products adulterated?

Please note that these are discussion points and should not be used as the structure of the discussion section.

For further details on writing requirements please refer to the guidance in the student handbook.

- Use a sans serif font 12 (e.g. Tahoma, Calibri)
- Line spacing 1.5
- Margins 2.0
- Citations in Harvard format (see lecture from Research Methods for format to be used)

Word Count: 2,000 words maximum.

The report must be uploaded to Moodle by **23:30** on **Friday 29th November 2024**.

Assessment Criteria

Knowledge and Understanding

Demonstrates sophisticated, systematic, and comprehensive knowledge of immunological test kits, including ELISA and Flow Through Tests, in the context of species determination in meat and environmental samples. Shows a comprehensive and sophisticated understanding of the practical applications, advantages, and limitations of these tests in various contexts, along with data selection, interpretation, and relevant calculations.

Use of Research Informed Evidence

The report is supported by high-quality, current research at every stage, from experimental design to interpretation. There is clear synthesis of research findings, with strong links between the results and published studies. An advanced ability to apply relevant literature, theories, and methodologies is evident. Critical analysis of the experimental results, drawing on a wide range of up-to-date sources and integrating them into the practical context of species determination in meat and environmental samples, is evident.

Evaluation and Analysis

The student displays exceptional critical thinking, selecting the correct calculation methods for the results obtained. Accurate calculations are provided. The student provides an exceptional critical analysis of the results obtained and the advantages and disadvantages of the ELISA and flow through methods.

Communication, Organisation and Presentation

The student communicates complex ideas fluently and with appropriate detail, offering clear, in-depth analysis. The report is excellently structured, with a logical flow that enhances understanding. Each section transitions coherently, contributing to a well-organized argument. Presentation is meticulous, fully following format guidelines, with effective use of tables, figures, and diagrams that enhance data communication. The language is precise, academic, and free from grammatical or spelling errors. The writing style is sophisticated, reflecting a high professional standard throughout the report.

Referencing and Coverage

All sources are meticulously cited throughout the text and in the reference list, with flawless use of University of Greenwich Harvard style applied consistently to all types of references. A broad and deep range of sources used, predominantly primary peer-reviewed literature, demonstrating exceptional research.

Graduate Employability and Application of Skills

Shows superlative understanding of the brief and addressing it. Exhibits mastery in having obtained a good set of results in the laboratory. Communicates clearly, confidently, and effectively. The student presents excellent, well-structured arguments and demonstrates professionalism. Overall, the student effectively conveys scientific information, showcasing an excellent understanding of the skills required in the field.

A complete copy of the marking rubric can be found in a separate file.

The assessment involves assessment of Learning Outcomes (LO) 1, 2, 3, 4

This assessment is worth 50% of the total assessment marks for this course.

Plagiarism will be heavily penalised and may result in 0 marks allocated for the assignment. Please consult the regulations before you start writing.

You will receive feedback on this assessment no later than **3 weeks after submission.**

Written feedback will be provided on the submission and in the grading form on the module Moodle page. Please make an appointment if you would like to discuss the feedback