**UNIVERSITY OF CUMBRIA**

**COURSEWORK REASSESSMENT REQUIREMENT**

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| **Module Code:** HSOS5102 |
| **Module Title:** Forensic Genetics |
| **Tutor:** Dr. Wendy Davidson |
| **Title of the item of work:**  **Forensic Genetics: Laboratory report.** |
| **Wordage:**  **Assignment 2:**  **This assessment has 50% weighting for this module.**  This assignment is dependent on the completion of laboratory practical classes and the production of a single report (1500 wordage – to meet learning outcomes 1 and 2).   |  | | --- | | 1. Demonstrate knowledge and critical understanding of a variety of techniques used for forensic genetic analysis | | 1. Critically evaluate the issues surrounding evidence of a genetic origin. |   The practical work was conducted over several laboratory sessions and in each you were provided with a detailed handout illustrating what was required of you. In addition, supplementary reading/guidance was posted on the module blackboard site.  The practical laboratory report should include the following sections:  Introduction, aims, hypothesis (where relevant), results for each given task, evaluation, discussion and bibliography.  Note the absence of a methodology section in this particular piece of work. The methodology is to be presented within the appendix and can be referred to within the body of the report. This report should be approximately 1500 words in total (not including the aims, results section and bibliography). You are allowed 10% over the word limit if need be.  With regards to the content of this assignment it is imperative you demonstrate an appreciation of the techniques utilised and how they may be applied within the field of forensic science. You are required to evaluate your results drawing on the strengths and limits of the chosen procedures and any uncertainties presented within your data. This is in essence an assignment whereby you demonstrate the ability to conduct a laboratory exercise, write and present the findings whilst ensuring you demonstrate evidence of criticality and in doing so evidence of external reading.  You will be expected to present a bibliography of approximately 15 sources.  Laboratory Report Guidance.  The following techniques were covered in this module and are eligible for assessment write up. You need not focus on all but when writing up ensure the relevant learning outcomes are achieved (e.g. LO1 ‘variety of techniques’ therefore you cannot focus simply on one technique).   * **DNA extraction: consider the key steps and any issues that may arise**. * Extractions were then checked using **AGE** - what were you looking for and why? What would you not want to visualise and why? * Determining DNA quantity and quality via **nanodrop – consider the ratio**. * **PCR – what were you searching for and what controls/control processes were used?**   The assignment will take the form of a standard laboratory report with the following sections:  1. Introduction: This must set the stage for what is to follow e.g. brief intro into DNA extraction/quantification (in relation to your scientific field), why it is important quality is high and what applications it may be used for. The introduction must evidence external reading.  2. Aim: what you intended to achieve within the sessions encapsulated in a paragraph. NOT INCLUDED IN WORD COUNT.  3. Hypothesis:  where relevant.  4. METHODS TO BE PLACED WITHIN AN APPENDIX - NOT INCLUDED IN WORD COUNT BUT MUST BE PRESENT. THEY ARE TO BE REFERRED TO WITHIN THE BODY OF THE REPORT.  5. Results: photographic images, tables of results.  All must be clearly titled, numbered and introduced.  6. Evaluation/Discussion - Looking for you to discuss your findings here and comment on what you found, levels of uncertainty, what may contribute to uncertainty, why controls are essential, types of controls utilised. This section will form the bulk of your assignment and as such should demonstrate an ability to critique findings, explore alternatives and draw from published literature in your field in relation to application, strengths, limits.  7. Reference list - not in word count. |
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| *(please tick as appropriate but must be completed)*  SUBMISSION DATE AS PER STUDENT PORTAL  To be submitted by ***4:00 PM*** on **05*/05/2023*** through the Virtual Learning Environment (Blackboard) reassessment tab.  X |