

# DNA Analyst Training Laboratory Training Manual

Form: Individual Training Plan

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PRESIDENT'S  
**DNA**  
INITIATIVE



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Task Sheets](#)

[Subject 2: Forensic Biology  
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[Subject 3: DNA Extraction and Quantitation  
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*Subject 1: Evidence and DNA*

| Laboratory:  |   |                                 |
|--|---|---------------------------------|
| Trainee Name:  |   |                                 |
| Technical Leader:  |   |                                 |
| <b>Proposed Learning Objectives by Subject</b>   | <b>Proposed Activity to Support Learning Goal</b>   | <b>Proposed Completion Date</b> |
| <b>Objective 1:</b> Successfully complete content review for Subject 1: Evidence                       | Read knowledge base content   |                                 |
| <b>Objective 2:</b> Successfully complete content review for Subject 1: DNA                            | Read knowledge base content   |                                 |
| <b>Objective 3:</b> Successfully perform exercises from Laboratory Training Manual Subject 1: Evidence | Exercise 1: Examination, Sample Collection, and Documentation<br><a href="#">Task Sheet (Sub1: Ex1)</a> |                                 |

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*Subject 2: Forensic Biology*

| Laboratory:  |   |                          |
|--|---|--------------------------|
| Trainee Name:  |   |                          |
| Technical Leader:  |   |                          |
| Proposed Learning Objectives by Subject  | Proposed Activity to Support Learning Goal  | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 2: Laboratory Orientation                       | Read knowledge base content   |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 2: Testing of Body Fluids and Tissues           | Read knowledge base content   |                          |
| <b>Objective 3:</b> Successfully perform exercises from Laboratory Training Manual Subject 2: Laboratory Orientation | <b>Exercise 1: Safety</b><br><a href="#">Task Sheet (Sub 2: Ex 1)</a>               |                          |
|  | <b>Exercise 2: Clean Technique</b><br><a href="#">Task Sheet (Sub 2: Ex 2)</a>      |                          |
|  | <b>Exercise 3: Laboratory Equipment</b><br><a href="#">Task Sheet (Sub 2: Ex 3)</a> |                          |
|  | <b>Exercise 4: Reagent Preparation</b><br><a href="#">Task Sheet (Sub 2: Ex 4)</a>  |                          |
| <b>Objective 4:</b> Successfully perform exercises from Laboratory Training Manual Subject 2: Body Fluids            | <b>Exercise 5: Blood</b><br><a href="#">Task Sheet (Sub 2: Ex 5)</a>                |                          |
|  | <b>Exercise 6: Semen</b><br><a href="#">Task Sheet (Sub 2: Ex 6)</a>                |                          |
|  | <b>Exercise 7: Saliva</b><br><a href="#">Task Sheet (Sub 2: Ex 7)</a>               |                          |
|  | <b>Exercise 8: Urine</b><br><a href="#">Task Sheet (Sub 2: Ex 8)</a>                |                          |
|  | <b>Exercise 9: Fecal Material</b><br><a href="#">Task Sheet (Sub 2: Ex 9)</a>       |                          |
|  | <b>Exercise 10: Vaginal Secretions</b><br><a href="#">Task Sheet (Sub 2: Ex 10)</a> |                          |
|  | <b>Exercise 11: Case Processing</b><br><a href="#">Task Sheet (Sub 2: Ex 11)</a>    |                          |
|  | <b>Optional Exercise 12: Hair</b><br><a href="#">Task Sheet (Sub 2: Opt.Ex: 12)</a> |                          |

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### Subject 3: DNA Extraction and Quantitation

| Laboratory:  |   |                          |
|--|---|--------------------------|
| Trainee Name:  |   |                          |
| Technical Leader:  |   |                          |
| Proposed Learning Objectives by Subject  | Proposed Activity to Support Learning Goal  | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 3: DNA Analysis Considerations      | Read knowledge base content   |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 3: Organic Extraction               | Read knowledge base content   |                          |
| <b>Objective 3:</b> Successfully complete content review for Subject 3: Chelex® 100 Extraction           | Read knowledge base content   |                          |
| <b>Objective 4:</b> Successfully complete content review for Subject 3: Other Extraction Techniques      | Read knowledge base content   |                          |
| <b>Objective 5:</b> Successfully complete content review for Subject 3: Quantitation                     | Read knowledge base content   |                          |
| <b>Objective 6:</b> Successfully perform exercises from Laboratory Training Manual Subject 3: Extraction | <b>Exercise 1: Extraction of Single Source Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 1)</a>          |                          |
|  | <b>Exercise 2: Differential Extraction of Mixed Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 2)</a>     |                          |
|  | <b>Exercise 3: Extraction of Compromised Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 3)</a>            |                          |
|  | <b>Exercise 4: Non-differential Extraction of Mixed Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 4)</a> |                          |
|  | <b>Exercise 5: Extraction of Inhibited Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 5)</a>              |                          |
|  | <b>Exercise 6: Extraction of Hair and Tissue Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 6)</a>        |                          |
|  | <b>Exercise 7: Non-probative (Mock Case Samples)</b><br><a href="#">Task Sheet (Sub 3: Ex 7)</a>            |                          |

# Individual Training Plan

## Subject 3: DNA Extraction and Quantitation

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|--|--|--|
|  | <b>Optional Exercise 8: Extraction of Bone or Teeth</b><br><a href="#">Task Sheet (Sub 3: Opt. Ex 8)</a>         |  |
|  | <b>Optional Exercise 9: Commercial Extraction Reagents/Kits</b><br><a href="#">Task Sheet (Sub 3: Opt. Ex 9)</a> |  |
| <b>Objective 7:</b> Successfully perform exercises from Laboratory Training Manual Subject 3: Quantitation | <b>Exercise 10: Sample Preparation and Instrumentation</b><br><a href="#">Task Sheet (Sub 3: Ex 10)</a>          |  |
|  | <b>Exercise 11: Reproducibility of the Quantitation Method</b><br><a href="#">Task Sheet (Sub 3: Ex 11)</a>      |  |
|  | <b>Exercise 12: Quantitation of Previously Extracted Samples</b><br><a href="#">Task Sheet (Sub 3: Ex 12)</a>    |  |
|  | <b>Exercise 13: Calculations and Dilutions</b><br><a href="#">Task Sheet (Sub 3: Ex 13)</a>                      |  |

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### Subject 4: DNA Amplification

| Laboratory:   |  |                          |
|---|--|--------------------------|
| Trainee Name:   |  |                          |
| Technical Leader:   |  |                          |
| Proposed Learning Objectives by Subject   | Proposed Activity to Support Learning Goal   | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 4: Overview                                | Read knowledge base content  |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 4: Locus Selection                         | Read knowledge base content  |                          |
| <b>Objective 3:</b> Successfully complete content review for Subject 4: Multiplexing                            | Read knowledge base content  |                          |
| <b>Objective 4:</b> Successfully complete content review for Subject 4: Contamination                           | Read knowledge base content  |                          |
| <b>Objective 5:</b> Successfully perform exercises from Laboratory Training Manual Subject 4: DNA Amplification | <b>Exercise 1: Thermal Cyclers</b><br><a href="#">Task Sheet (Sub 4: Ex 1)</a>   |                          |
|   | <b>Exercise 2: Amplification of Dilution Series</b><br><a href="#">Task Sheet (Sub 4: Ex 2)</a>                                    |                          |
|   | <b>Exercise 3: Amplification of Two Donor Mixed Samples</b><br><a href="#">Task Sheet (Sub 4: Ex 3)</a>                            |                          |
|   | <b>Exercise 4: Amplification of Previously Extracted Samples</b><br><a href="#">Task Sheet (Sub 4: Ex 4)</a>                       |                          |
|   | <b>Optional Exercise 5: Effects of Annealing Temperature on Amplification</b><br><a href="#">Task Sheet (Sub 4: Opt. Ex 5)</a>     |                          |
|   | <b>Optional Exercise 6: Effects of Increasing Extension Time on Amplification</b><br><a href="#">Task Sheet (Sub 4: Opt. Ex 6)</a> |                          |
|   | <b>Optional Exercise 7: Amplification of Degraded Samples</b><br><a href="#">Task Sheet (Sub 4: Opt. Ex 7)</a>                     |                          |
|   | <b>Optional Exercise 8: Amplification of Inhibited Samples</b><br><a href="#">Task Sheet (Sub 4: Opt. Ex 8)</a>                    |                          |

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## Subject 5: Amplified Product Separation

| Laboratory:  |  |                          |
|--|--|--------------------------|
| Trainee Name:  |  |                          |
| Technical Leader:  |  |                          |
| Proposed Learning Objectives by Subject  | Proposed Activity to Support Learning Goal   | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 5: Overview   | Read knowledge base content  |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 5: Capillary Electrophoresis                          | Read knowledge base content  |                          |
| <b>Objective 3:</b> Successfully complete content review for Subject 5: Sample Preparation and Handling                    | Read knowledge base content  |                          |
| <b>Objective 4:</b> Successfully perform exercises from Laboratory Training Manual Subject 5: Amplified Product Separation | <b>Exercise 1: Instrument Maintenance</b><br><a href="#">Task Sheet (Sub 5: Ex 1)</a>  |                          |
|  | <b>Exercise 2: Sample Run and Set-up</b><br><a href="#">Task Sheet (Sub 5: Ex 2)</a>   |                          |
|  | <b>Exercise 3: Initial Data Evaluation</b><br><a href="#">Task Sheet (Sub 5: Ex 3)</a>                                       |                          |
|  | <b>Exercise 4: Practice Data Sets and Mock Cases</b><br><a href="#">Task Sheet (Sub 5: Ex 4)</a>                             |                          |
|  | <b>Optional Exercise 5: Variations in Sample Set-up for Troubleshooting</b><br><a href="#">Task Sheet (Sub 5: Opt. Ex 5)</a> |                          |

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*Subject 6: STR Data Analysis and Interpretation*

| Laboratory:   |  |                          |
|---|--|--------------------------|
| Trainee Name:   |  |                          |
| Technical Leader:   |  |                          |
| Proposed Learning Objectives by Subject   | Proposed Activity to Support Learning Goal   | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 6: STR Data Analysis & Interpretation      | Read knowledge base content  |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 6: Data Troubleshooting                    | Read knowledge base content  |                          |
| <b>Objective 3:</b> Successfully complete content review for Subject 6: Data Interpretation and Allele Calls    | Read knowledge base content  |                          |
| <b>Objective 4:</b> Successfully perform exercises from Laboratory Training Manual Subject 6: DNA Amplification | <b>Exercise 1: Analysis Parameters</b><br><a href="#">Task Sheet (Sub 6: Ex 1)</a> |                          |
|   | <b>Exercise 2: Practice Data</b><br><a href="#">Task Sheet (Sub 6: Ex 2)</a>       |                          |
|   | <b>Exercise 3: Data Evaluation</b><br><a href="#">Task Sheet (Sub 6: Ex 3)</a>     |                          |
|   | <b>Exercise 4: Data Interpretation</b><br><a href="#">Task Sheet (Sub 6: Ex 4)</a> |                          |
|   | <b>Exercise 5: Conclusions</b><br><a href="#">Task Sheet (Sub 6: Ex 5)</a>         |                          |

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*Subject 7: Population Genetics and Statistics*

| Laboratory:  |   |                          |
|--|---|--------------------------|
| Trainee Name:  |   |                          |
| Technical Leader:  |   |                          |
| Proposed Learning Objectives by Subject  | Proposed Activity to Support Learning Goal  | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 7: Population Theory  | Read knowledge base content   |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 7: Statistics   | Read knowledge base content   |                          |
| <b>Objective 3:</b> Successfully perform exercises from Laboratory Training Manual Subject 7: Population Genetics and Statistics | <b>Exercise 1: Statistical Calculations</b><br><a href="#">Task Sheet (Sub 7: Ex 1)</a> |                          |

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## Subject 8: Communicating Results

| Laboratory:   |   |                          |
|---|---|--------------------------|
| Trainee Name:   |   |                          |
| Technical Leader:   |   |                          |
| Proposed Learning Objectives by Subject   | Proposed Activity to Support Learning Goal  | Proposed Completion Date |
| <b>Objective 1:</b> Successfully complete content review for Subject 8: Communications Skills                       | Read knowledge base content   |                          |
| <b>Objective 2:</b> Successfully complete content review for Subject 8: Report Writing                              | Read knowledge base content   |                          |
| <b>Objective 3:</b> Successfully complete content review for Subject 8: Courtroom Testimony                         | Read knowledge base content   |                          |
| <b>Objective 4:</b> Successfully perform exercises from Laboratory Training Manual Subject 8: Communicating Results | <b>Exercise 1: Preparation of Case Reports from Provided Data</b><br><a href="#">Task Sheet (Sub 8: Ex 1)</a>                   |                          |
|   | <b>Exercise 2: Preparation of Case Reports from Exercise Samples and Mock Cases</b><br><a href="#">Task Sheet (Sub 8: Ex 2)</a> |                          |
|   | <b>Exercise 3: Overview of Judicial Practices and Policies</b><br><a href="#">Task Sheet (Sub 8: Ex 3)</a>                      |                          |
|   | <b>Exercise 4: Observation of Testimony</b><br><a href="#">Task Sheet (Sub 8: Ex 4)</a>   |                          |
|   | <b>Exercise 5: Preparation of Curriculum Vitae</b><br><a href="#">Task Sheet (Sub 8: Ex 5)</a>                                  |                          |
|   | <b>Exercise 6: Mock Trial</b><br><a href="#">Task Sheet (Sub 8: Opt. Ex 6)</a>  |                          |

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*Subject 1: Evidence and DNA*

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|--|-------------------------|------------------------------------|
| Laboratory:  |                         |                                    |
| Trainee Name:  |                         |                                    |
| Technical Leader:  |                         |                                    |
| <b>Subject 1 - Exercise 1: Task Sheet</b>                      |                         |                                    |
| <b>Examination, Sample Collection, and Documentation Tasks</b> |                         |                                    |
|  | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.   |                         |                                    |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 2: Task Sheet</b> |                         |                                    |
|---|-------------------------|------------------------------------|
| <b>Clean Technique</b>                    |                         |                                    |
|   | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.  |                         |                                    |
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Subject 2: Forensic Biology

| Subject 2 - Exercise 3: Task Sheet |  |                             |
|------------------------------------|--|-----------------------------|
| Laboratory Equipment               |  |                             |
| Task Number                        | Task Description   | Anticipated Completion Date |
| 1.                                 | Read equipment user's manuals  |                             |
| 2.                                 | Read SOPs regarding maintenance, calibration, and cleaning of laboratory equipment |                             |
| 3.                                 | Observe the following:   |                             |
|                                    |  |                             |
|                                    |  |                             |
| 4.                                 | Conduct the following:   |                             |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 4: Task Sheet</b> |  |                                    |
|---|--|------------------------------------|
| <b>Reagent Preparation</b>                |  |                                    |
| <b>Task Number</b>                        | <b>Task Description</b>                              | <b>Anticipated Completion Date</b> |
| 1.  | Prepare, label, and document the following reagents: |                                    |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 5: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Blood</b>                              |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Locate stains visually  |                                    |
| 2.  | Examine stains for characteristics of dried blood   |                                    |
| 3.  | Perform sensitivity tests   |                                    |
| 4.  | Perform specificity tests   |                                    |
| 5.  | Perform presumptive and confirmatory tests on stains on various substrates and environmentally challenged samples |                                    |
| 6.  | Perform presumptive and confirmatory tests on training samples  |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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Subject 2: Forensic Biology

| <b>Subject 2 - Exercise 6: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Semen</b>                              |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Locate stains visually.   |                                    |
| 2.  | Perform sensitivity tests   |                                    |
| 3.  | Perform specificity tests   |                                    |
| 4.  | Perform microscopic evaluation of spermatozoa from various species      |                                    |
| 5.  | Perform microscopic evaluation of samples containing yeast and bacteria |                                    |
| 6.  | Perform mapping of body fluid stains                                    |                                    |
| 7.  | Perform presumptive and confirmatory tests on training samples          |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 7: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Saliva</b>                             |   |                                    |
|   | <b>Task Description</b>                       | <b>Anticipated Completion Date</b> |
| 1.  | Locate stains visually                        |                                    |
| 2.  | Perform sensitivity tests                     |                                    |
| 3.  | Perform specificity tests                     |                                    |
| 4.  | Perform mapping of body fluid stains          |                                    |
| 5.  | Perform presumptive tests on training samples |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 8: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Urine</b>                              |   |                                    |
|   | <b>Task Description</b>                       | <b>Anticipated Completion Date</b> |
| 1.  | Locate stains visually                        |                                    |
| 2.  | Perform sensitivity tests                     |                                    |
| 3.  | Perform specificity tests                     |                                    |
| 4.  | Perform presumptive tests on training samples |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 9: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Fecal Material</b>                     |   |                                    |
|   | <b>Task Description</b>                       | <b>Anticipated Completion Date</b> |
| 1.  | Locate stains visually                        |                                    |
| 2.  | Perform specificity tests                     |                                    |
| 3.  | Perform presumptive tests on training samples |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 2: Forensic Biology*

| <b>Subject 2 - Exercise 10: Task Sheet</b> |   |                                    |
|--|---|------------------------------------|
| <b>Vaginal Secretions</b>                  |   |                                    |
|  | <b>Task Description</b>                       | <b>Anticipated Completion Date</b> |
| 1.   | Locate stains visually                        |                                    |
| 2.   | Perform sensitivity tests                     |                                    |
| 3.   | Perform specificity tests                     |                                    |
| 4.   | Perform presumptive tests on training samples |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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# Individual Training Plan

## Subject 2: Forensic Biology

| <b>Subject 2 - Optional Exercise 12: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Hair</b>   |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Evaluate hair from multiple species (including human hair) for characteristics such as length, color, shaft profile, presence/absence of the medulla, type of scales, etc |                                    |
| 2.  | Evaluate training samples from multiple species to determine human or non-human origin.   |                                    |
| 3.  | Evaluate human hair from multiple individuals for presence/absence of root materials.   |                                    |
| 4.  | Perform microscopic evaluation on training samples.   |                                    |
| 5.  | Remove mounted hair from multiple slides, in preparation for possible DNA analysis.   |                                    |

### **Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 3: Extraction and Quantitation*

|  |                               |                                    |
|--|-------------------------------|------------------------------------|
| Laboratory:                                |                               |                                    |
| Trainee Name:                              |                               |                                    |
| Technical Leader:                          |                               |                                    |
| <b>Subject 3 - Exercise 1: Task Sheet</b>  |                               |                                    |
| <b>Extraction of Single Source Samples</b> |                               |                                    |
|  | <b>Task Description</b>       | <b>Anticipated Completion Date</b> |
| 1.   | Extract blood samples         |                                    |
| 2.   | Extract cell samples          |                                    |
| 3.   | Extract diluted blood samples |                                    |

**Additional Tasks**

|     |                         |                                    |
|-----|-------------------------|------------------------------------|
|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 2: Task Sheet</b>       |  |                                    |
|---|--|------------------------------------|
| <b>Differential Extraction of Mixed Samples</b> |  |                                    |
|   | <b>Task Description</b>                      | <b>Anticipated Completion Date</b> |
| 1.  | Extract mixed samples containing sperm cells |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 3: Task Sheet</b> |                           |                                    |
|---|---------------------------|------------------------------------|
| <b>Extraction of Compromised Samples</b>  |                           |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Extract low level samples |                                    |
| 2.  | Extract degraded samples  |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 4: Task Sheet</b>           |   |                                    |
|---|---|------------------------------------|
| <b>Non-Differential Extraction of Mixed Samples</b> |   |                                    |
|   | <b>Task Description</b>                               | <b>Anticipated Completion Date</b> |
| 1.  | Extract mixed samples that do not contain sperm cells |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 5: Task Sheet</b> |                           |                                    |
|---|---------------------------|------------------------------------|
| <b>Extraction of Inhibited Samples</b>    |                           |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Extract inhibited samples |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 6: Task Sheet</b>    |                         |                                    |
|--|-------------------------|------------------------------------|
| <b>Extraction of Hair and Tissue Samples</b> |                         |                                    |
|  | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.   | Extract tissue samples  |                                    |
| 2.   | Extract hair samples    |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 7: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Non-Probative (Mock Case) Samples</b>  |   |                                    |
|   | <b>Task Description</b>                   | <b>Anticipated Completion Date</b> |
| 1.  | Extract non-probative (mock case) samples |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 – Optional Exercise 8: Task Sheet</b> |                         |                                    |
|--|-------------------------|------------------------------------|
| <b>Extraction of Bone or Teeth</b>                 |                         |                                    |
|  | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.   | Extract bone samples    |                                    |
| 2.   | Extract teeth samples   |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 – Optional Exercise 9: Task Sheet</b> |                         |                                    |
|--|-------------------------|------------------------------------|
| <b>Commercial Extraction Reagents/Kits</b>         |                         |                                    |
|  | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.   |                         |                                    |
| 2.   |                         |                                    |
| 3.   |                         |                                    |
| 4.   |                         |                                    |
| 5.   |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 10: Task Sheet</b>    |  |                                    |
|---|--|------------------------------------|
| <b>Sample Preparation and Instrumentation</b> |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Prepare a sample plate   |                                    |
| 2.  | Complete the software set-up for a run   |                                    |
| 3.  | Run a sample plate   |                                    |
| 4.  | Evaluate the standard curve  |                                    |
| 5.  | Identify and explain the functions of the various components of the instrument                       |                                    |
| 6.  | Demonstrate the proper use of the software as it pertains to maintenance, calibration, and operation |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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Subject 3: Extraction and Quantitation

| <b>Subject 3 - Exercise 11: Task Sheet</b>        |   |                                    |
|---|---|------------------------------------|
| <b>Reproducibility of the Quantitation Method</b> |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Quantitate samples of varying concentration (repeat to produce three data sets for each sample) |                                    |
| 2.  | Determine the reproducibility of each sample  |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 3: Extraction and Quantitation*

| <b>Subject 3 - Exercise 12: Task Sheet</b>          |   |                                    |
|---|---|------------------------------------|
| <b>Quantitation of Previously Extracted Samples</b> |   |                                    |
|   | <b>Task Description</b>                                     | <b>Anticipated Completion Date</b> |
| 1.  | Quantitate all samples extracted in Subject 3 Exercises 1-9 |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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# Individual Training Plan

## Subject 3: Extraction and Quantitation

| <b>Subject 3 - Exercise 13: Task Sheet</b> |  |                                    |
|--|--|------------------------------------|
| <b>Calculations and Dilutions</b>          |  |                                    |
|  | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.   | Determine the quantity (ng / $\mu$ l) of DNA in each sample extracted in Subject 3 Exercises 1-9                       |                                    |
| 2.   | Identify the samples (extracted in Subject 3 Exercises 1-9) that require dilution and perform the appropriate dilution |                                    |

### Additional Tasks

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 4: DNA Amplification*

|   |  |                                    |
|---|--|------------------------------------|
| Laboratory:                               |  |                                    |
| Trainee Name:                             |  |                                    |
| Technical Leader                          |  |                                    |
| <b>Subject 4 - Exercise 1: Task Sheet</b> |  |                                    |
| <b>Thermal Cyclers</b>                    |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Identify and explain the functions of the various components of the instrument |                                    |
| 2.  | Establish and verify the cycling parameters                                    |                                    |
| 3.  | Calibrate the thermal cycler(s)  |                                    |
| 4.  | Demonstrate proper operation of the thermal cycler(s)                          |                                    |

**Additional Tasks**

|     |                         |                                    |
|-----|-------------------------|------------------------------------|
|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 4: DNA Amplification*

| <b>Subject 4 - Exercise 2: Task Sheet</b> |  |                                    |
|---|--|------------------------------------|
| <b>Amplification of Dilution Series</b>   |  |                                    |
|   | <b>Task Description</b>                                    | <b>Anticipated Completion Date</b> |
| 1.  | Make dilutions of a single source known sample and amplify |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 4: DNA Amplification*

| <b>Subject 4 - Exercise 3: Task Sheet</b>       |   |                                    |
|---|---|------------------------------------|
| <b>Amplification of Two Donor Mixed Samples</b> |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Make dilutions from two single source known samples and amplify |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 4: DNA Amplification*

| <b>Subject 4 - Exercise 4: Task Sheet</b>            |  |                                    |
|--|--|------------------------------------|
| <b>Amplification of Previously Extracted Samples</b> |  |                                    |
|  | <b>Task Description</b>                                  | <b>Anticipated Completion Date</b> |
| 1.   | Amplify all samples extracted in Subject 3 Exercises 1-9 |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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Subject 4: DNA Amplification

| <b>Subject 4 – Optional Exercise 5: Task Sheet</b>       |   |                                    |
|--|---|------------------------------------|
| <b>Effects of Annealing Temperature on Amplification</b> |   |                                    |
|  | <b>Task Description</b>                                     | <b>Anticipated Completion Date</b> |
| 1.   | Amplify samples using a decreased annealing temperature(s)  |                                    |
| 2.   | Amplify samples using an increased annealing temperature(s) |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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Subject 4: DNA Amplification

| <b>Subject 4 - Optional Exercise 6: Task Sheet</b>           |   |                                    |
|--|---|------------------------------------|
| <b>Effects of Increasing Extension Time on Amplification</b> |   |                                    |
|  | <b>Task Description</b>                           | <b>Anticipated Completion Date</b> |
| 1.   | Amplify samples using a decreased extension time  |                                    |
| 2.   | Amplify samples using an increased extension time |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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Subject 4: DNA Amplification

| <b>Subject 4 - Optional Exercise 7: Task Sheet</b> |   |                                    |
|--|---|------------------------------------|
| <b>Amplification of Degraded Samples</b>           |   |                                    |
|  | <b>Task Description</b>                           | <b>Anticipated Completion Date</b> |
| 1.   | Amplify samples that have been treated with DNase |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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# Individual Training Plan

## Subject 4: DNA Amplification

| <b>Subject 4 - Optional Exercise 8: Task Sheet</b> |   |                                    |
|--|---|------------------------------------|
| <b>Amplification of Inhibited Samples</b>          |   |                                    |
|  | <b>Task Description</b>                 | <b>Anticipated Completion Date</b> |
| 1.   | Amplify samples that contain inhibitors |                                    |

### Additional Tasks

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 5: Amplified DNA Product Separation*

|   |   |                                    |
|---|---|------------------------------------|
| Laboratory:                               |   |                                    |
| Trainee Name:                             |   |                                    |
| Technical Leader                          |   |                                    |
| <b>Subject 5 - Exercise 1: Task Sheet</b> |   |                                    |
| <b>Instrument Maintenance</b>             |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Set-up and clean the instrument(s).   |                                    |
| 2.  | Identify and explain the functions of the various components of the instrument.   |                                    |
| 3.  | Demonstrate the proper use of the software as it pertains to instrument maintenance, to include the following: <ul style="list-style-type: none"> <li>• Manual control and/or wizards</li> <li>• Calibration</li> <li>• Re-setting the instrument and firmware</li> </ul> |                                    |

**Additional Tasks**

|     |                         |                                    |
|-----|-------------------------|------------------------------------|
|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 5: Amplified DNA Product Separation*

| <b>Subject 5 - Exercise 2: Task Sheet</b> |  |                                    |
|---|--|------------------------------------|
| <b>Sample Run and Set-Up</b>              |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Set up samples to run on the instrument, to include: <ul style="list-style-type: none"> <li>• Sample sheets</li> <li>• Injection lists</li> <li>• Plate records</li> </ul>   |                                    |
| 2.  | Verify the instrument run parameters to include: <ul style="list-style-type: none"> <li>• Run and test modules</li> <li>• Voltage</li> <li>• Current</li> <li>• Run time</li> <li>• Injection time</li> <li>• Run temperature</li> </ul> |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 5: Amplified DNA Product Separation*

| <b>Subject 5 - Exercise 3: Task Sheet</b> |  |                                    |
|---|--|------------------------------------|
| <b>Initial Data Evaluation</b>            |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Perform initial data evaluation on a practice data set to include: <ul style="list-style-type: none"> <li>• Internal lane size standard</li> <li>• Ladder</li> <li>• Baseline</li> <li>• Presence of the primer peak(s)</li> <li>• Injection quality, if applicable</li> <li>• Spikes</li> <li>• Pull-up</li> <li>• Minus A</li> <li>• Low peak heights</li> </ul> |                                    |
| 2.  | Re-inject samples for which data does not meet the established criteria; adjust parameters as needed   |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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*Subject 5: Amplified DNA Product Separation*

| <b>Subject 5 - Exercise 4: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Practice Data Sets and Mock Cases</b>  |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Set up and run each sample extracted in Subject 3 Exercises 1-9   |                                    |
| 2.  | Evaluate the data from each sample extracted in Subject 3 Exercises 1-9 and determine if any samples should be re-run |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
|-----|-------------------------|------------------------------------|
| 1.  |                         |                                    |
| 2.  |                         |                                    |
| 3.  |                         |                                    |
| 4.  |                         |                                    |
| 5.  |                         |                                    |
| 6.  |                         |                                    |
| 7.  |                         |                                    |
| 8.  |                         |                                    |
| 9.  |                         |                                    |
| 10. |                         |                                    |

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# Individual Training Plan

## Subject 5: Amplified DNA Product Separation

| <b>Subject 5 – Optional Exercise 5: Task Sheet</b>     |  |                                    |
|--|--|------------------------------------|
| <b>Variations in Sample Set-Up for Troubleshooting</b> |  |                                    |
|  | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.   | Determine the effect of varying the amount of internal size standard   |                                    |
| 2.   | Determine the effect of substituting water for formamide   |                                    |
| 3.   | Determine the effect of varying concentrations of buffer   |                                    |
| 4.   | Determine the effect of varying the amount of amplified product  |                                    |
| 5.   | Change the run settings, to include <ul style="list-style-type: none"> <li>• Injection time</li> <li>• Voltage</li> <li>• Run time</li> <li>• Run temperature</li> </ul> |                                    |

### Additional Tasks

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 6: STR Data Analysis and Interpretation*

|   |  |                                    |
|---|--|------------------------------------|
| Laboratory:                               |  |                                    |
| Trainee Name:                             |  |                                    |
| Technical Leader:                         |  |                                    |
| <b>Subject 6 – Exercise 1: Task Sheet</b> |  |                                    |
| <b>Analysis Parameters</b>                |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Create and apply a matrix file to sample data  |                                    |
| 2.  | Define and apply a size standard   |                                    |
| 3.  | Compare analysis parameters (as outlined in the SOPs) with those defined in the software program |                                    |

**Additional Tasks**

|     |                         |                                    |
|-----|-------------------------|------------------------------------|
|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 6: STR Data Analysis and Interpretation*

| <b>Subject 6 – Exercise 2: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Practice Data</b>                      |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Evaluate data from a practice data set and identify: <ul style="list-style-type: none"> <li>• Spurious peaks (spikes, dye blobs, noise)</li> <li>• Artifacts (3'-A nucleotide addition, stutter, pull-up)</li> <li>• Microvariants and off ladder alleles</li> <li>• Allele drop-out</li> <li>• Imbalanced alleles (stochastic/preferential amplification)</li> <li>• Background noise – raw and analyzed data</li> <li>• Off scale data – raw and analyzed data</li> <li>• Mislabeled peaks due to incorrectly labeled internal size standard</li> <li>• Controls (determine if they meet the criteria established in the laboratory's SOPs)</li> <li>• Degradation</li> <li>• Balance of internal size standard</li> <li>• Identification of single source and mixed samples</li> </ul> |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 6: STR Data Analysis and Interpretation*

| <b>Subject 6 – Exercise 3: Task Sheet</b> |  |                                    |
|---|--|------------------------------------|
| <b>Data Evaluation</b>                    |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Evaluate and troubleshoot data from each sample extracted in Subject 3 Exercises 1-9 to include the following: <ul style="list-style-type: none"> <li>• Internal size standards from each sample</li> <li>• Allelic ladders from each run</li> <li>• All controls to ensure the expected results are obtained</li> <li>• Each sample for the presence of extraneous peaks</li> <li>• Maximum and/or minimum threshold for each sample</li> <li>• Heterozygote peak height percentage</li> <li>• Single source versus mixed sample</li> </ul> |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 6: STR Data Analysis and Interpretation*

| <b>Subject 6 – Exercise 4: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Data Interpretation</b>                |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Interpret data from each sample extracted in Subject 3 Exercises 1-9 to include the following: <ul style="list-style-type: none"> <li>• Identify and interpret single source samples:                             <ul style="list-style-type: none"> <li>○ Confirm allele calls</li> <li>○ Determine suitability for CODIS upload or application of statistics, if appropriate</li> </ul> </li> <li>• Identify and interpret mixed samples:                             <ul style="list-style-type: none"> <li>○ Determine minimum number of donors</li> <li>○ Determine the appropriate category:                                     <ul style="list-style-type: none"> <li>▪ Mixture with major and minor component(s)</li> <li>▪ Mixture with known contributor(s)</li> <li>▪ Mixture with indistinguishable contributor(s)</li> </ul> </li> <li>○ Assess percent contribution and peak height percentages if necessary</li> <li>○ Determine suitability for CODIS upload or application of statistics, if appropriate</li> </ul> </li> </ul> |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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# Individual Training Plan

## Subject 6: STR Data Analysis and Interpretation

| <b>Subject 6 – Exercise 5: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Conclusions</b>                        |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Provide conclusions from each sample extracted in Subject 3 Exercises 1-9 to include the following: <ul style="list-style-type: none"><li>• Inclusion/match</li><li>• Exclusion/non-match</li><li>• Inconclusive/uninterpretable</li><li>• No results</li></ul> |                                    |

### Additional Tasks

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 7: Population Genetics and Statistics*

|   |   |                                    |
|---|---|------------------------------------|
| Laboratory:                               |   |                                    |
| Trainee Name:                             |   |                                    |
| Technical Leader:                         |   |                                    |
| <b>Subject 7 – Exercise 1: Task Sheet</b> |   |                                    |
| <b>Statistical Calculations</b>           |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
| 1.  | Observe the usage of the CODIS Popstats software or any other appropriate program                   |                                    |
| 2.  | Perform statistical calculations on data obtained from samples extracted in Subject 3 Exercises 1-9 |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 8: Communicating Results*

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| Laboratory:   |  |                                    |
| Trainee Name:   |  |                                    |
| Technical Leader:                                     |  |                                    |
| <b>Subject 8 – Exercise 1: Task Sheet</b>             |  |                                    |
| <b>Preparation of Case Reports from Provided Data</b> |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Prepare forensic case reports using provided data and/or case file documentation |                                    |

**Additional Tasks**

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|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 8: Communicating Results*

| <b>Subject 8 – Exercise 2: Task Sheet</b>                               |  |                                    |
|---|--|------------------------------------|
| <b>Preparation of Case Reports from Exercise Samples and Mock Cases</b> |  |                                    |
|   | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.  | Prepare forensic case reports using data from samples extracted in Subject 3 Exercises 1-9 |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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*Subject 8: Communicating Results*

| <b>Subject 8 – Exercise 3: Task Sheet</b>          |  |                                    |
|--|--|------------------------------------|
| <b>Overview of Judicial Practices and Policies</b> |  |                                    |
|  | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.   | Research and write a brief synopsis on the following topics: <ul style="list-style-type: none"><li>• Rules of evidence</li><li>• Judicial structure</li><li>• Discovery</li><li>• Subpoenas</li><li>• Pretrial conference communication</li><li>• Courtroom rules of procedure</li></ul> |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 8: Communicating Results*

| <b>Subject 8 – Exercise 4: Task Sheet</b> |   |                                    |
|---|---|------------------------------------|
| <b>Observation of Testimony</b>           |   |                                    |
|   | <b>Task Description</b>   | <b>Anticipated Completion Date</b> |
|   | Review Transcripts of expert witness testimony from a trial and/or a deposition   |                                    |
|   | Observe an experienced analyst participating in a pretrial conference(s)  |                                    |
|   | Observe an experienced analyst providing expert witness testimony in deposition(s), hearing(s) and/or trial(s)  |                                    |
|   | Observe a trial, including opening argument and closing statements  |                                    |
|   | Summarize and/or discuss courtroom etiquette, to include the following: <ul style="list-style-type: none"> <li>• Appearance</li> <li>• Demeanor</li> <li>• Professionalism</li> <li>• Objectivity</li> <li>• Presentation skills</li> </ul> |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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*Subject 8: Communicating Results*

| <b>Subject 8 – Exercise 5: Task Sheet</b> |  |                                    |
|---|--|------------------------------------|
| <b>Preparation of Curriculum Vitae</b>    |  |                                    |
|   | <b>Task Description</b>                                    | <b>Anticipated Completion Date</b> |
| 1.  | Create an accurate and complete curriculum vitae or resume |                                    |

**Additional Tasks**

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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| 1.  |                         |                                    |
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# Individual Training Plan

## Subject 8: Communicating Results

| <b>Subject 8 –Exercise 6: Task Sheet</b> |  |                                    |
|--|--|------------------------------------|
| <b>Mock Trial</b>                        |  |                                    |
|  | <b>Task Description</b>  | <b>Anticipated Completion Date</b> |
| 1.                                       | Prepare, in writing, responses to qualifying questions provided by the trainer   |                                    |
| 2.                                       | Prepare, in writing, responses to voir dire questions provided by the trainer  |                                    |
| 3.                                       | Prepare, in writing, responses to direct examination questions provided by the trainer   |                                    |
| 4.                                       | Prepare, in writing, responses to cross examination questions provided by the trainer  |                                    |
| 5.                                       | Through mock trial practice sessions cover the following topics, as if providing testimony: <ul style="list-style-type: none"> <li>• Qualifying as an expert witness</li> <li>• Voir dire</li> <li>• Explanation of analytical processes and SOPs</li> <li>• Use of visual aides</li> <li>• Case specific questions, including direct and cross examination</li> </ul> |                                    |
| 6.                                       | Participate in a Mock Trial  |                                    |

### Additional Tasks

|     | <b>Task Description</b> | <b>Anticipated Completion Date</b> |
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