

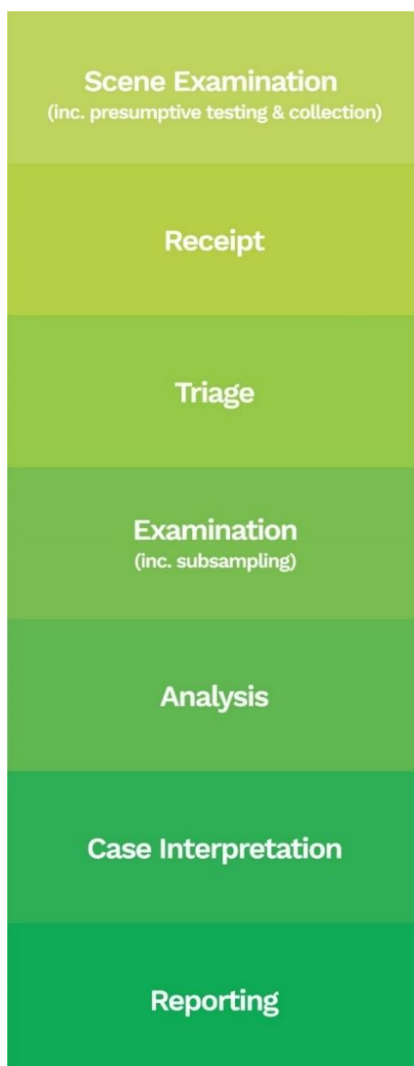


ACCREDITED FOR  
**TECHNICAL  
COMPETENCE**



**forensic**  
**FOUNDATIONS™**  
ISO 9001 & ISO/IEC 17043

# Proficiencytesting @ forensicfoundations



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# Proficiencytesting@forensicfoundations

Forensic Foundations' Proficiency Tests are designed to address the following issues:

- Relevance to forensic science laboratories
- Limitation of any potential context information
- Knowledge of the 'ground truth' of the samples
- Cost affordability for the laboratories.

ISO17025:2017 identifies risk management as an integral component of any scientific testing. Forensic Foundations has adopted this approach and have designed their Proficiency Tests to address risks, where possible, at **all** stages of the forensic process. The table in Appendix A outlines some of the risks associated with each stage of the forensic process.

Forensic Foundations has also adopted the framework embodied in the AS 5388 'Forensic Analysis' and the ISO 21043 'Forensic Sciences' series of Standards. These Standards describe the forensic examination process from collection to reporting. Therefore, all Forensic Foundations' Proficiency Tests commence with item collection and/or receipt and all the subsequent examination / analysis steps, culminating in the reporting, thus reflecting actual forensic casework. Further detail regarding the inter-relatedness of all phases of the forensic process is described in Appendix B.

Forensic Foundations is accredited to ISO17043 'Conformity Assessment – General requirements for proficiency testing' in the fields of forensic biology, chemical criminalistics and document examination. However, those tests not yet accredited also comply with requirements of ISO17043.

Forensic Foundations' Proficiency Tests encompass the requirements of:

- ISO17025:2017 General requirements for the competence of testing and calibration laboratories
- NATA General Accreditation Criteria Proficiency Testing Policy (2018)
- NATA Specific Accreditation Criteria: ISO/IEC 17025 Application Document, Legal (including Forensic Science) – Appendix (2018)
- ANAB ISO/IEC 17025:2017 – Forensic Science Testing and Calibration Laboratories Accreditation Requirements (2019)
- ANAB Accreditation Manual for Forensic Service Providers (2019)
- Guidance on the Conduct of Proficiency Tests and Collaborative Exercises Within ENSFI (2014).

The Final Reports from Forensic Foundations Proficiency Tests will be publicly available via the Forensic Foundations' web site however individual laboratory results will remain confidential. Participating laboratories may use the report as outlined in their respective laboratory policies.

In addition to offering a program of proficiency tests, Forensic Foundation also offers a number of inter-laboratory collaborative trials. These trials are offered where the test is still in the development phase and/or the test is niche.

## Pricing structure

The pricing structure has been calculated to be affordable and flexible.

Please contact Forensic Foundations to discuss multiple test discounts.

Description		Cost (inc freight)
<b>Proficiency Test</b>	Test samples and associated paperwork will be provided. Results to be submitted and reviewed. Final report including manufacturer's information provided for each test.	AUD750
<b>Training Kit</b>	Test samples, associated paperwork and the manufacturer's information will be provided. This test has no external review and can be used for training purposes. The test is shipped following the distribution of the final proficiency test report	AUD250
<b>Interlaboratory Collaborative Trial</b>	Test samples and associated paperwork will be provided. Results to be submitted and reviewed. Final report including manufacturer's information provided for each test.	AUD500

## 2021 Program snapshot

Test ID	Discipline and subdiscipline	Summary of the Test	Last date for orders	Distribution	Results submitted	Final Report distributed
<b>Proficiency Tests</b>						
2021-1	Forensic Biology – Biological examination and DNA -1	A female complainant has been sexually assaulted. Participants will be provided with the complainant's medical samples and a reference sample. Reference samples will also be provided from the suspects.	26 <sup>th</sup> February 2021	March 2021	May 2021	July 2021
2021-2	Biology / Crime Scene Examination - BPA	An altercation has occurred with one person being hospitalized. There are a number of conflicting accounts of the events. Participants will be provided with details of the conflicting scenarios and detailed high-resolution photographs of the scene, with and without scales.	26 <sup>th</sup> March 2021	April 2021	June 2021	August 2021
2021-3	Fingerprint detection, enhancement and identification	Confidential documents have been removed from locked storage. The documents were later recovered, and fingerprint examination is required to determine if the identity of the person(s) handling the documents can be determined. Participants will be provided with the confidential documents. And comparison ten print sets from a number of suspects.	30 <sup>th</sup> April 2021	May 2021	July 2021	September 2021
2021-4	Chemical Criminalistics – Fibres	A break in and robbery occurred at a private home. Access was gained by breaking a window. Clothing from three suspects have been seized. Participants will be provided with samples of fabric collected from the broken glass and samples of the suspects' clothing.	28 <sup>th</sup> May 2021	June 2021	August 2021	October 2021
2021-5	Document Examination	A family is disputing the will of a deceased elderly relative. The will indicates that a carer is the major beneficiary. The family does not believe this is consistent with the wishes of their relative. Participants will be provided with a number of high-quality images of the will and specimen signatures to examine.	25 <sup>th</sup> June 2021	July 2021	September 2021	November 2021
2021-6	Forensic Biology – Biological examination and DNA -2	The complainant had been allegedly kidnapped, driven to an unknown location and assaulted by an unknown number of assailants. Participants will be provided with the clothing of the complainant and the 2 suspects, together with swabs of potential touch points in the car. Relevant reference samples will also be provided/	25 <sup>th</sup> June 2021	July 2021	September 2021	November 2021
2021-7	Chemical Criminalistics - Glass	A car window has been broken and goods stolen from the car. Participants will be provided with samples of the glass from the car and the debris collected from the suspects' clothing.	30 <sup>th</sup> July 2021	August 2021	October 2021	December 2021
2021-8	Forensic Biology – Biological examination, BPA and DNA	Following the assault described in 2021-2, the clothing of the two persons of interest have been collected. Participants will be provided with this clothing and the relevant reference samples.	27 <sup>th</sup> August 2021	September 2021	November 2021	January 2022
2021-9	Chemical Criminalistics – Automotive Paint	A fatal hit run occurred. Automotive paint flakes were recovered from the scene. Participants will be provided with the paint flakes and samples collected from a number of suspect vehicles.	24 <sup>th</sup> September 2021	October 2021	December 2021	February 2022

2021-10	Forensic Biology – Biological examination and DNA -3	A female complainant has been sexual assaulted. Participants will be provided with the complainant's clothing and reference sample. Reference samples will also be provided from three suspects	26th November 2021	December 2021	April 2022	May 2022
<b>Interlaboratory Collaborative Trials.</b> These trials are offered where the test is still in the development phase and/or the test is niche.						
2021-11	Digital Forensics	Examination of material stored in the 'Cloud' and comparison with material on seized computers.	25 <sup>th</sup> June 2021	July 2021	September 2021	November 2021
2021-12	Forensic Drug Analysis	Examination of GC-MS data produced following the analysis of a number of unknown compounds located in an alleged Clandestine Laboratory.	27 <sup>th</sup> August 2021	September 2021	November 2021	January 2022
2021-13	Chemical Criminalistics – Ignitable fluid residue	Police have investigated a suspicious house fire. Participants will be provided with samples of upholstery fabric from the couch which appears to be the seat of the fire.	29 <sup>th</sup> October 2021	November 2021	January 2022	March 2022
2021-14	Forensic Odontology	Examination and comparison of dental material.	29 <sup>th</sup> October 2021	November 2021	January 2022	March 2022

## 2021 Program in detail

### 2021-1 Forensic Biology – Biological examination and DNA - 1

#### Scenario

A female complainant has been sexually assaulted.

Participants will be provided with the complainant's medical samples and reference sample.

Reference samples will also be provided from three suspects.

#### Examination / Analysis required

Assessment of packaging / receipt.

Description of items.

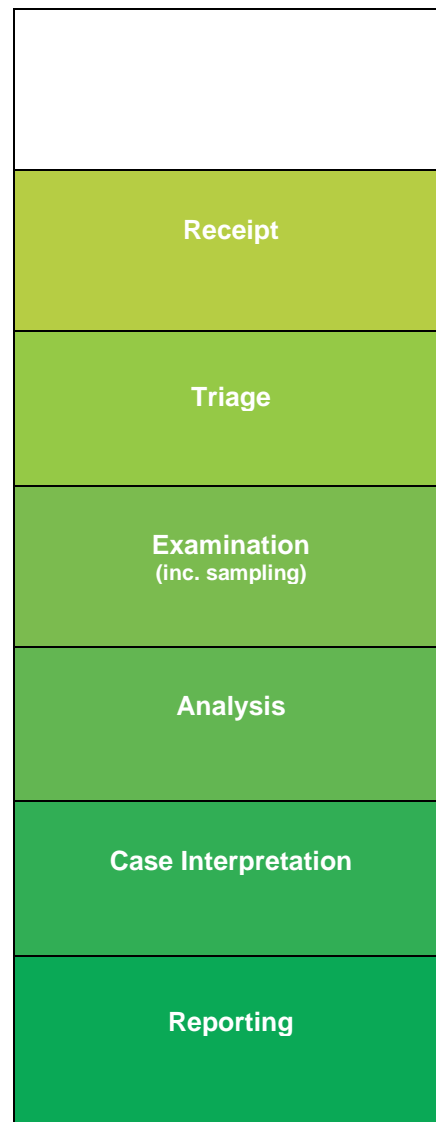
Comparison of DNA profile obtained from medical samples with the reference samples.

Could any of the suspects be the assailant?

Interpretation and reporting of the results.

Last date for orders	26th February 2021
Distribution	March 2021
Results submitted	May 2021
Final Report distributed	July 2021

The following aspects of the forensic process will be examined:



## 2021-2 Biology / Crime Scene Examination - BPA

### Scenario

An altercation has occurred with one person being hospitalized. There are a number of conflicting accounts of the events.

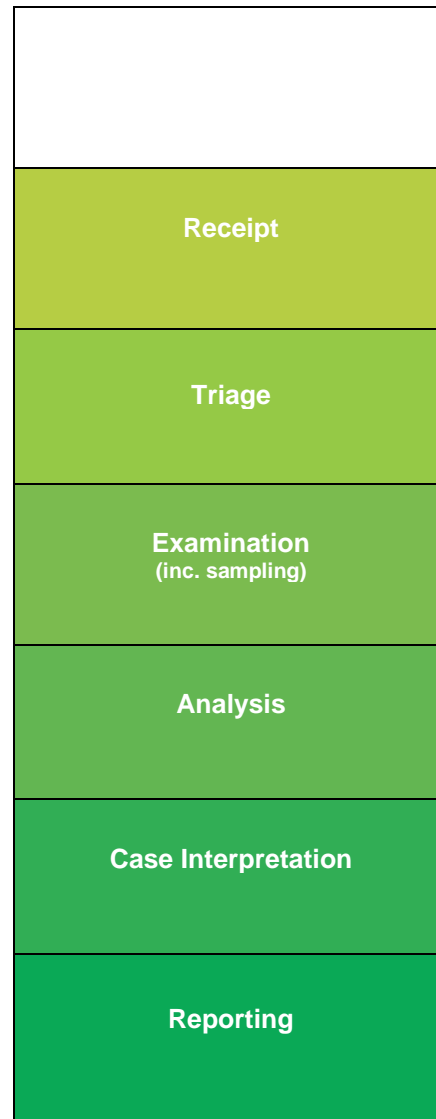
Participants will be provided with the conflicting scenarios and detailed high-resolution photographs of the scene, with and without scales.

### Examination / Analysis required

Receipt and documentation of photographs.  
Examination and analysis of the photographs.  
Identification of blood deposition patterns.  
Reconstruction of possible mechanisms of blood deposition.  
Comparison of possible mechanisms with the scenarios provided.  
Interpretation and reporting of the results.

Last date for orders	26th March 2021
Distribution	April 2021
Results submitted	June 2021
Final Report distributed	August 2021

The following aspects of the forensic process will be examined:





## 2021-3 Fingerprint detection, enhancement and identification

### Scenario

Confidential documents have been removed from locked storage. The documents were later recovered, and fingerprint examination is required to determine if the identity of the person(s) handling the documents can be determined.

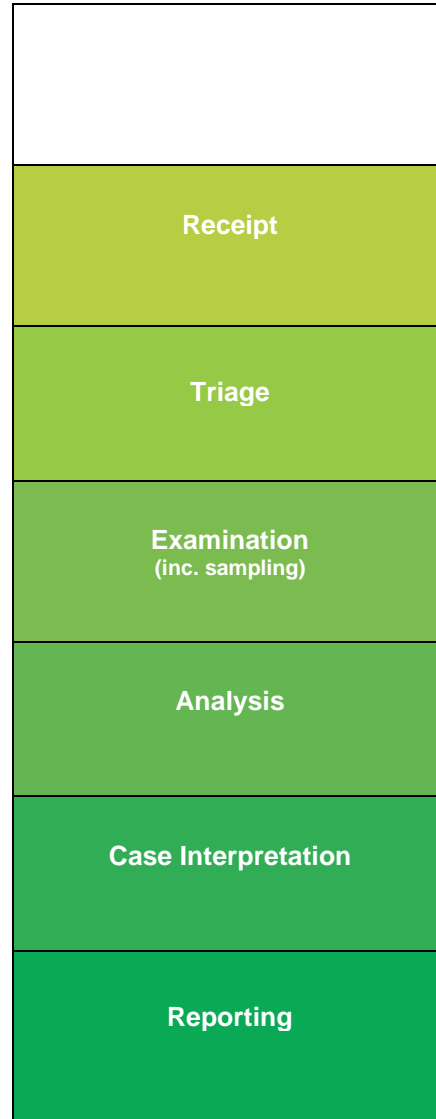
Participants will be provided with the confidential documents. And comparison ten print sets from a number of suspects.

### Examination / Analysis required

Assessment of packaging / receipt.  
Description of items.  
Enhancement and detection of latent fingermarks on the documents.  
Comparison of latent fingermarks with reference ten print sets from the suspects.  
Could any of the suspects have handled the documents?  
Interpretation and reporting of the results.

Last date for orders	30th April 2021
Distribution	May 2021
Results submitted	July 2021
Final Report distributed	September 2021

The following aspects of the forensic process will be examined:



## 2021-4 Chemical Criminalistics – Fibres

### Scenario

A break in and robbery occurred at a private home. Access was gained by breaking a window. Clothing from three suspects has been seized.

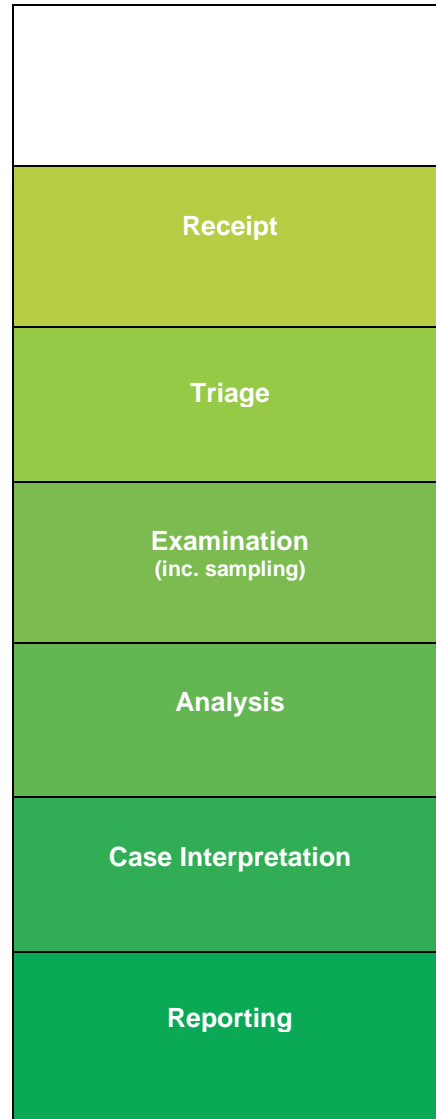
Participants will be provided with samples of fabric collected from the broken glass and samples of the suspects' clothing.

### Examination / Analysis required

Assessment of packaging / receipt.  
Description of items.  
Comparison of fibres collected from the broken glass and fibres of the suspects' clothing.  
Could any of the fibres from the scene have originated from any of the suspects' clothing?  
Interpretation and reporting of the results.

Last date for orders	28th May 2021
Distribution	June 2021
Results submitted	August 2021
Final Report distributed	October 2021

The following aspects of the forensic process will be examined:



## 2021-5 Document Examination

### Scenario

A family is disputing the will of a deceased elderly relative. The will indicates that a carer is the major beneficiary. The family does not believe this is consistent with the wishes of their relative.

Participants will be provided with a number of high-quality images of the will and specimen signatures to examine.

### Examination / Analysis required

Description of items.

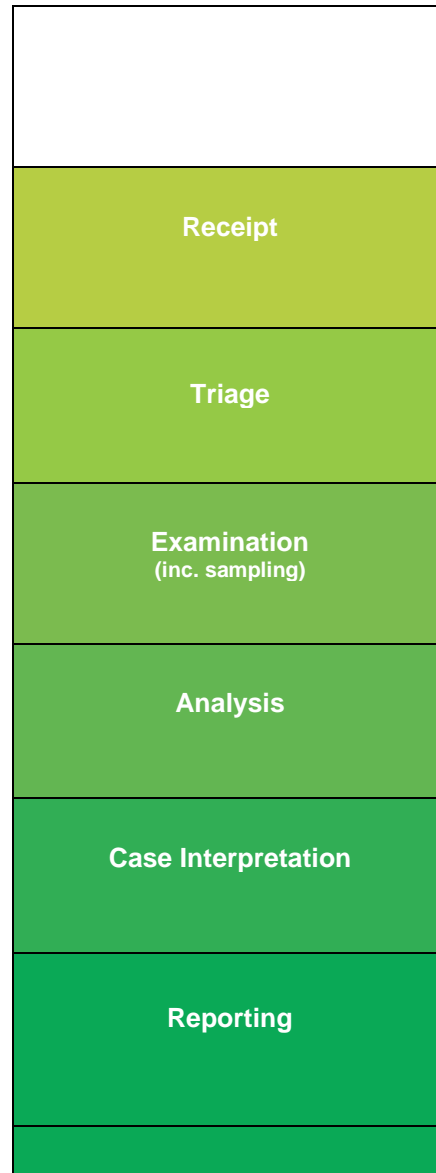
Examination and analysis of the signature on the will and specimen signatures of the deceased.

Could the signature be genuine?  
What other explanations could there be?

Interpretation and reporting of the results.

Last date for orders	25th June 2021
Distribution	July 2021
Results submitted	September 2021
Final Report distributed	November 2021

The following aspects of the forensic process will be examined:



## 2021-6 Forensic Biology – Biological examination and DNA -2

### Scenario

The complainant has been allegedly kidnapped, driven to an unknown location and assaulted by an unknown number of assailants.

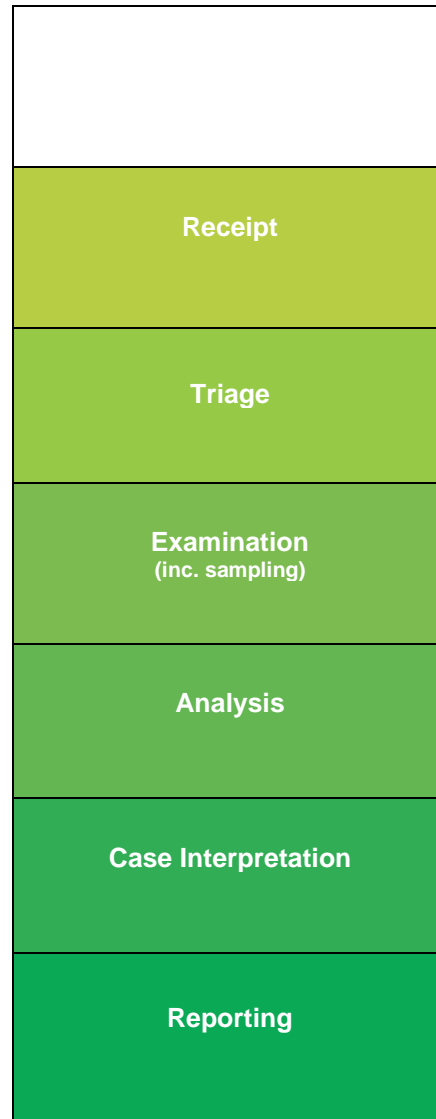
Participants will be provided with the clothing and reference samples of the complainant and the 2 suspects, together with swabs of potential touch points in the car.

### Examination / Analysis required

Assessment of packaging / receipt.  
Description of items.  
Triage of items.  
Examination of items.  
Subsampling, if required.  
Comparison of DNA profile obtained from clothing / swabs with the reference samples.  
Could there be any nexus between the car, the complainant and any of the suspects?  
Interpretation and reporting of the results.

Last date for orders	25th June 2021
Distribution	July 2021
Results submitted	September 2021
Final Report distributed	November 2021

The following aspects of the forensic process will be examined:



## 2021-7 Chemical Criminalistics - Glass

### Scenario

A car window has been broken and goods stolen from the car.

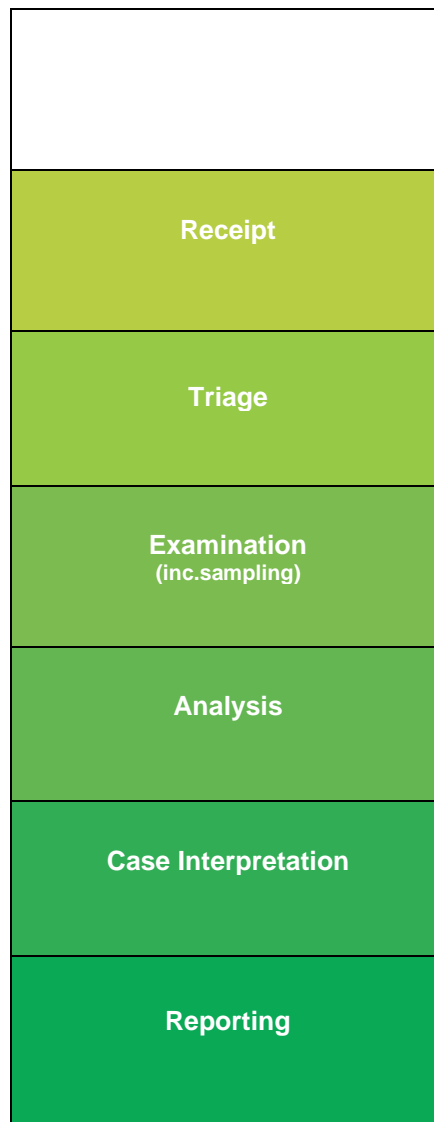
Participants will be provided with samples of the glass from the car window and the debris collected from the suspects' clothing.

### Examination / Analysis required

Assessment of packaging / receipt.  
Description of items.  
Analysis and comparison of glass fragments in the debris with the glass sample from the car window.  
Could any of the glass fragments collected from any of the suspect's clothing have originated from car window?  
Interpretation and reporting of the results.

Last date for orders	30th July 2021
Distribution	August 2021
Results submitted	October 2021
Final Report distributed	December 2021

The following aspects of the forensic process will be examined:



## 2021-8 Forensic Biology – Biological examination, BPA and DNA

NOTE: this test can be undertaken as:

- BPA on fabric test; or
- Biological examination and DNA analysis test; or
- Both BPA and Biology/DNA analysis test.

### Scenario

Following the assault described in 2021-2, the clothing of the two persons of interest have been collected.

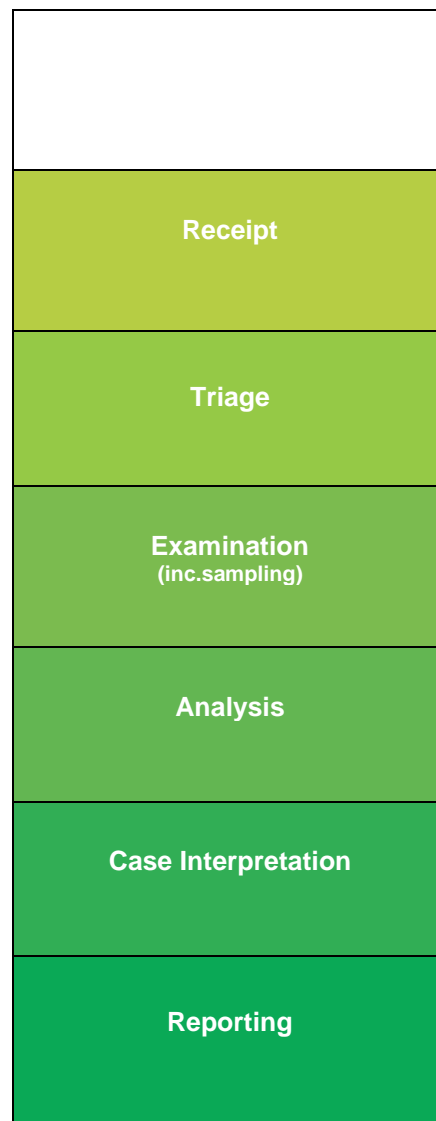
Participants will be provided with this clothing and reference samples of the complainant and the two persons of interest.

### Examination / Analysis required

Assessment of packaging / receipt.  
 Description of items.  
 Biological examination of the items.  
 Identification of biological material.  
 Analysis of the biological material.  
 Is there any nexus between the complainant and the suspects based on the biological material on their clothing?  
 Can any comment be made regarding the mechanism of deposition of the biological material?  
 Interpretation and reporting of the results.

Last date for orders	27th August 2021
Distribution	September 2021
Results submitted	November 2021
Final Report distributed	January 2022

The following aspects of the forensic process will be examined:



## 2021-9 Chemical Criminalistics – Automotive Paint

### Scenario

A fatal hit run occurred. Automotive paint flakes were recovered from the scene.

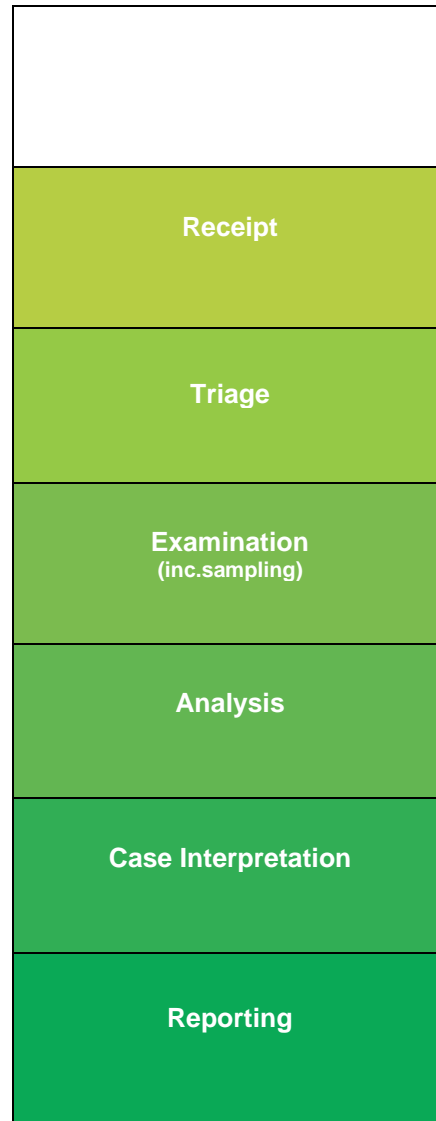
Participants will be provided with the paint flakes and samples collected from a number of suspect vehicles.

### Examination / Analysis required

Assessment of packaging / receipt.  
Description of items.  
Examination & analysis of the items.  
Comparison of the paint flakes with the paint samples from the suspect vehicles.  
Could any of the paint flakes located at the scene have originated from any of the suspect vehicles?  
Interpretation and reporting of the results.

Last date for orders	24th September 2021
Distribution	October 2021
Results submitted	December 2021
Final Report distributed	February 2022

The following aspects of the forensic process will be examined:



## 2021-10 Forensic Biology – Biological examination and DNA -3

### Scenario

A female complainant has been sexually assaulted.  
Participants will be provided with the complainant's clothing and reference sample.

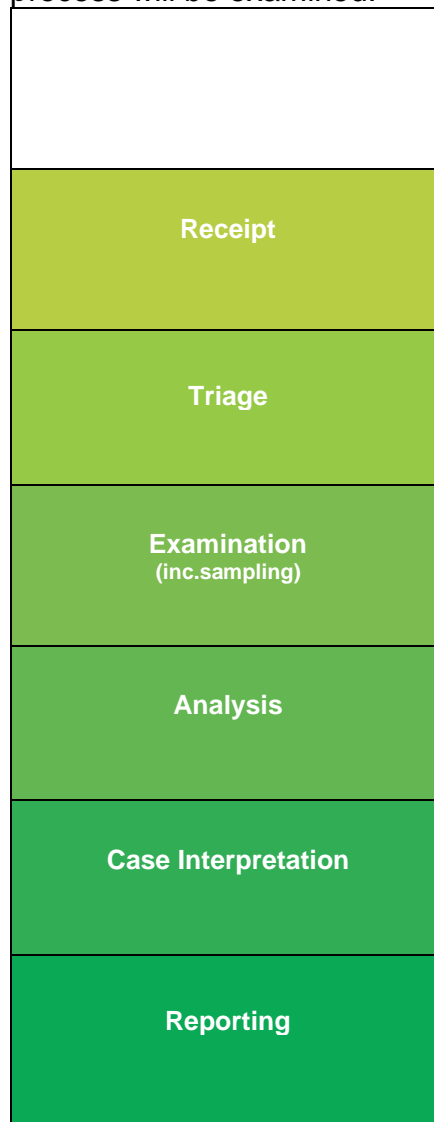
Reference samples will also be provided from three suspects.

### Examination / Analysis required

Assessment of packaging / receipt.  
Description of items.  
Biological examination of the items.  
Identification of any biological material.  
Analysis of the biological material.  
Is there any nexus between the complainant and the suspects based on the biological material on her clothing?

Last date for orders	26th November 2021
Distribution	December 2021
Results submitted	April 2022
Final Report distributed	May 2022

The following aspects of the forensic process will be examined:





## 2021-11 Digital Forensics

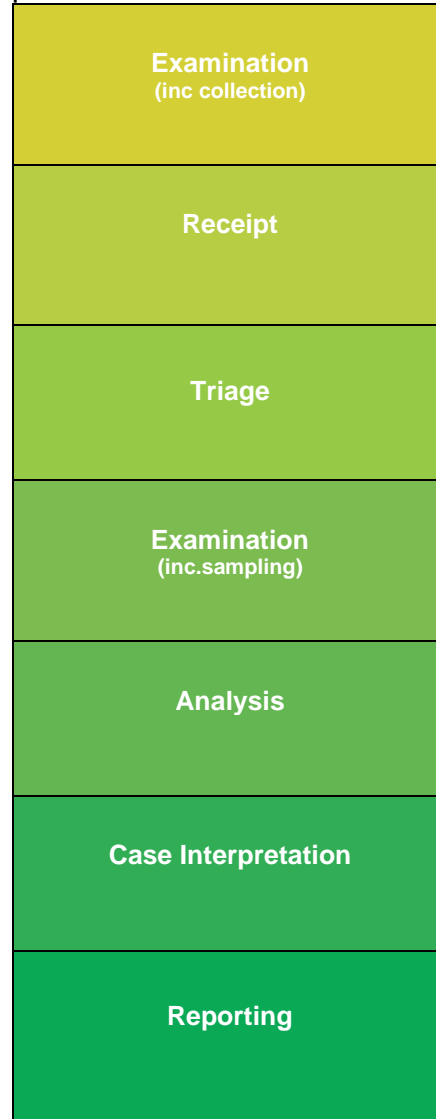
Interlaboratory Collaborative Trials are offered where the test is still in the development phase and/or the test is niche.

### Scenario

Examination of material stored in the 'Cloud' and comparison with material on seized computers.

Last date for orders	25th June 2021
Distribution	July 2021
Results submitted	September 2021
Final Report distributed	November 2021

The following aspects of the forensic process will be examined:



## 2021-12 Forensic Drug Analysis

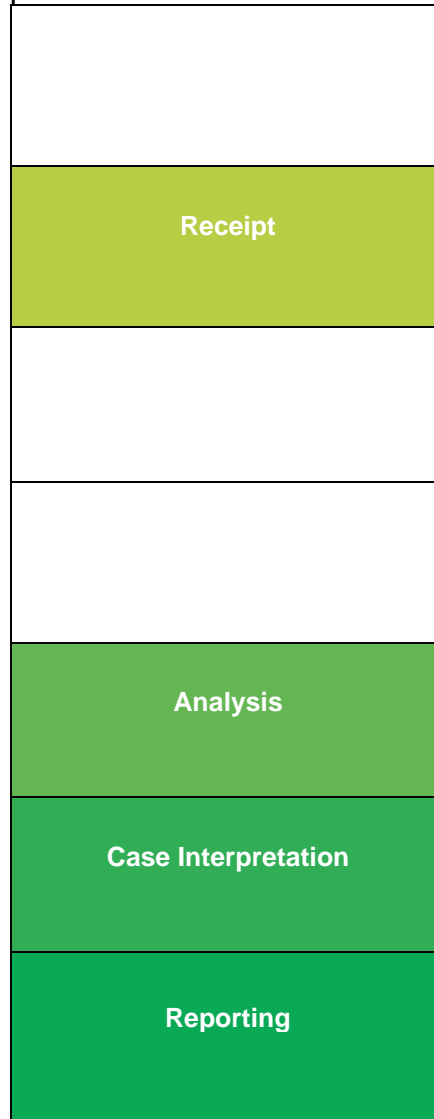
Interlaboratory Collaborative Trials are offered where the test is still in the development phase and/or the test is niche.

### Scenario

Examination of GC-MS data produced following the analysis of a number of unknown compounds located in an alleged Clandestine Laboratory.

Last date for orders	27th August 2021
Distribution	September 2021
Results submitted	November 2021
Final Report distributed	January 2022

The following aspects of the forensic process will be examined:



## 2021-13 Chemical Criminalistics – Ignitable fluid residue

Interlaboratory Collaborative Trials are offered where the test is still in the development phase and/or the test is niche.

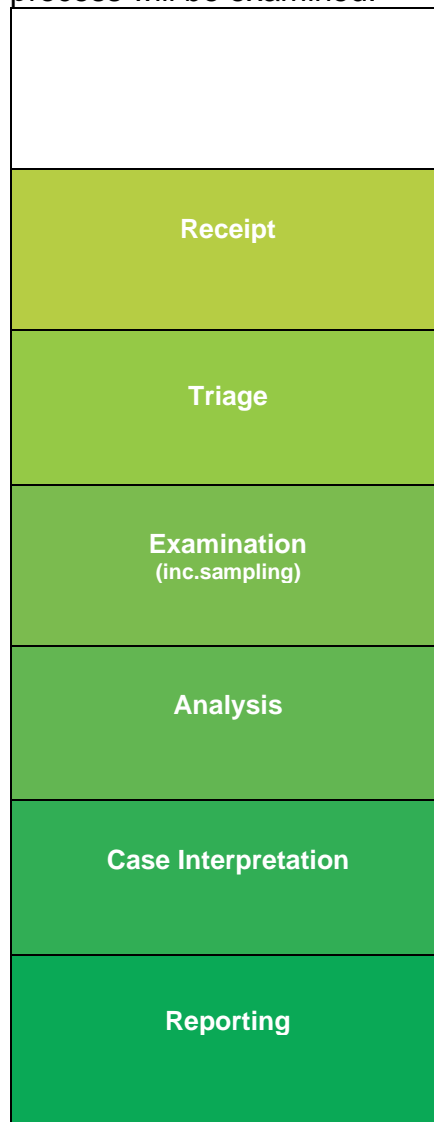
### Scenario

Police have investigated a suspicious house fire.

Participants will be provided with samples of upholstery fabric from the couch which appears to be the seat of the fire.

Last date for orders	29th October 2021
Distribution	November 2021
Results submitted	January 2022
Final Report distributed	March 2022

The following aspects of the forensic process will be examined:



## 2021-14 Forensic Odontology

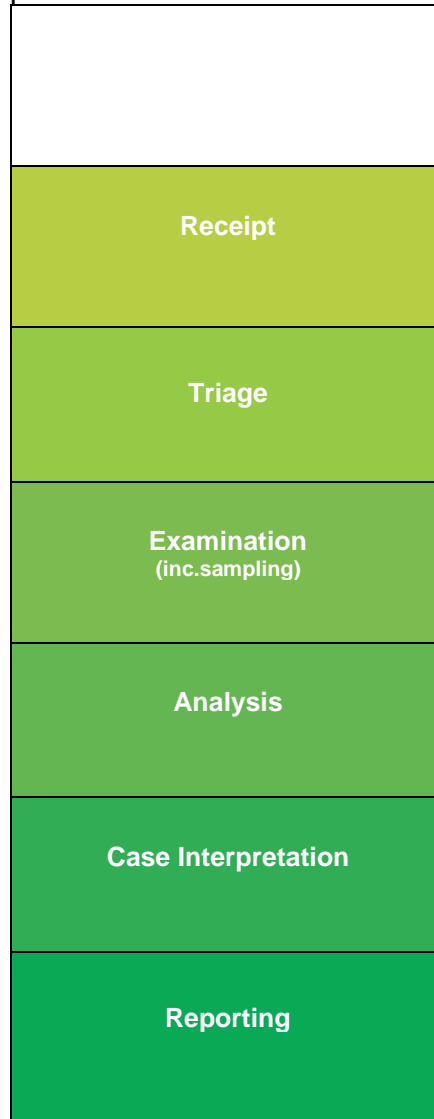
Interlaboratory Collaborative Trials are offered where the test is still in the development phase and/or the test is niche.

### Scenario

Examination and comparison of dental material provided in a digital format.

Last date for orders	29th October 2021
Distribution	November 2021
Results submitted	January 2022
Final Report distributed	March 2022

The following aspects of the forensic process will be examined:

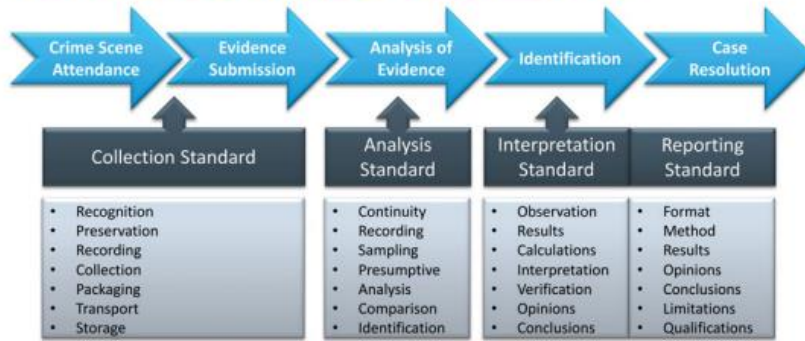


## Appendix A

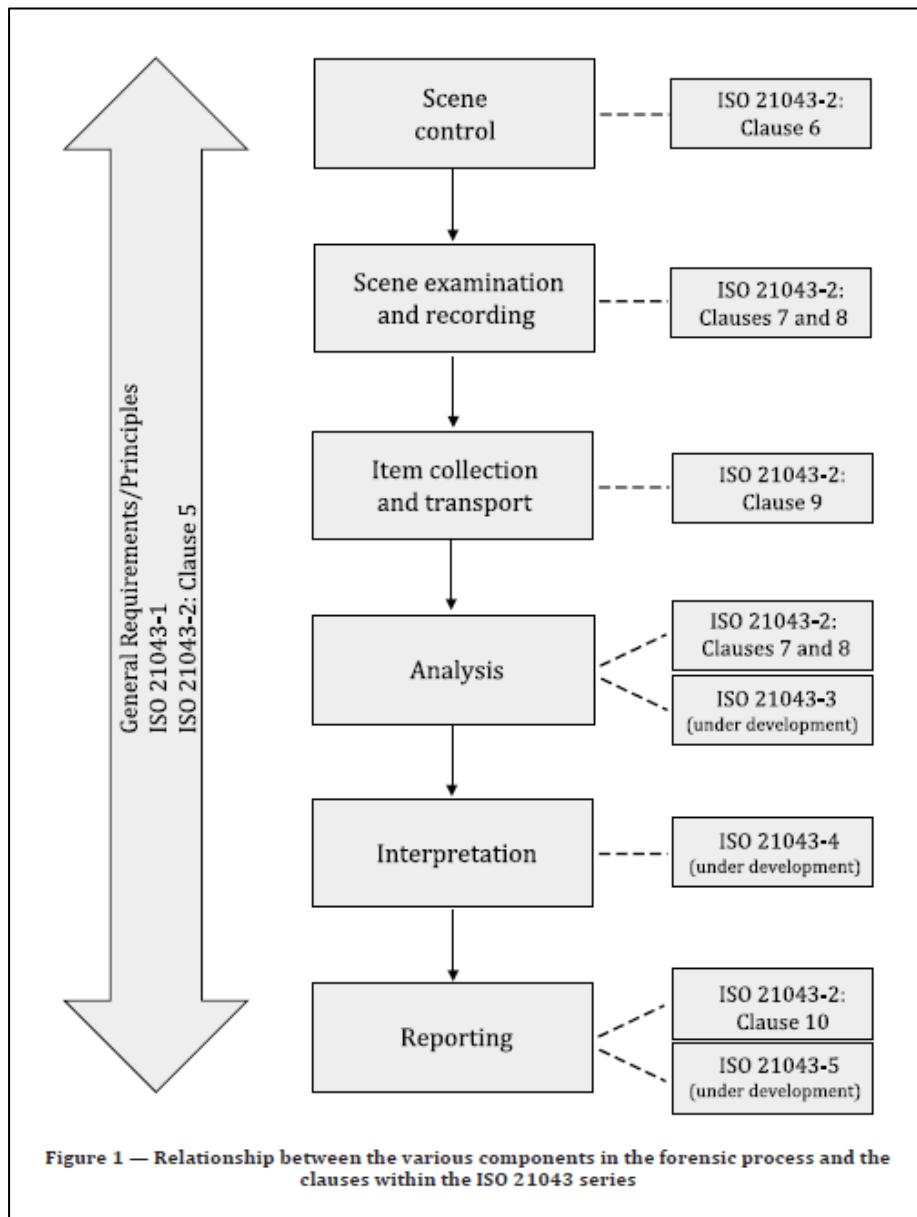
Phase	Internal context (Risk to organization)	External context (Risk to clients inc. justice system and community)
Scene / laboratory examination (inc. presumptive testing and collection)	<p><b>Continuity</b></p> <ul style="list-style-type: none"> <li>transcription errors,</li> <li>issues relating to sealing of items,</li> <li>incorrect descriptions,</li> <li>sample mix up misidentification</li> </ul> <p><b>Examination / analysis</b></p> <ul style="list-style-type: none"> <li>samples not identified or incorrectly identified</li> <li>samples not collected for testing</li> <li>inappropriate examination / analytical method used</li> </ul> <p><b>Interpretation / reporting</b></p> <ul style="list-style-type: none"> <li>invalid or unsupported assumptions</li> <li>contextual bias</li> <li>incomplete</li> </ul>	<ul style="list-style-type: none"> <li>Absence of results where samples have not been collected / analyzed</li> <li>False identification of substance / false inclusions</li> <li>False exclusion</li> <li>Results deemed inadmissible</li> <li>Incorrect weight given to evidence</li> <li>Miscarriages of justice</li> </ul>
Receipt in organisation or individual work unit		
Triage		
Analysis		
Case Interpretation		
Reporting		

## Appendix B

### Forensic Science Standards



James Robertson, Karl Kent & Linzi Wilson-Wilde (2013) The Development of a Core Forensic Standards Framework for Australia, *Forensic Science Policy & Management: An International Journal*, 4:3-4, 59-67.



## Appendix C



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[www.forensicfoundations.com.au](http://www.forensicfoundations.com.au)

ABN 23 839 112 155 ACN 130 236 618

Forensic Foundations' Proficiency Tests are required to be fit-for-purpose. To assist us to provide the relevant fit-for-purpose tests, please use the following form to suggest further tests for development.

### Recommendation for Proficiency Test development

Contact	Name	
	Email	
	Phone	
Discipline/ subdiscipline		
Specific issues(s) to be addressed*. Note: The tests can be designed to be multidisciplinary.		
Suggested technical advisor (if known)		
Suggested manufacturer (if known)		

\* All Proficiency Tests will include the end to end process (receipt & continuity, triage, description, examination, analysis, data generation, interpretation, reporting) but one aspect may be of particular interest/focus.

This form can be emailed to [quality@forensicfoundations.com.au](mailto:quality@forensicfoundations.com.au) or you can discuss your suggestions on either +61 3 9018 8919 or +61 429 966 012.