



ACCREDITED FOR  
**TECHNICAL  
COMPETENCE**



**BUREAU  
VERITAS**



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

**2020**

updated 1 June 2020

# 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; and
- 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. Thus, 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'. Currently forensic biology and chemical criminalistics are covered by the scope of accreditation.

Forensic Foundations' Proficiency Tests comply with 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 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 trial. These trials are offered where the test is still in the development phase and/or the tests is niche and/or the field of study is not currently covered by our scope of accreditation.

## Pricing structure

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

Please contact Forensic Foundations to discuss multiple test discounts.

<b>Description</b>		<b>Cost (inc freight)</b>
<b>Proficiency Test</b>	Test samples and associated paperwork will be provided.  Results to be submitted and reviewed.  Final report including manufacturer's instructions provided for each test.	AUD750
<b>Training Kit</b>	Test samples, associated paperwork and the manufacturer's instructions 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 instructions provided for each test.	AUD500

## 2020 Program snapshot

Test ID	Discipline and subdiscipline	Summary of the Scenario	Last date for orders	Distribution	Results submitted	Final Report distributed
<b>Proficiency Tests</b>						
2020-1	Forensic Biology – Biological examination and DNA -1	A female complainant has been sexual assaulted. Participants will be provided with the complainant's, medical samples and reference sample. Reference samples will also be provided from the suspects		Closed	June 26 2020	July 2020
2020-2	Biology/ Crime Scene Examination -BPA	An elderly man attended the emergency department with lacerations to his head, face and arms. He has no recollection of how the injuries were sustained. A property is located which may be the scene of the assault. Is the blood staining at this property consistent with the injuries sustained? Participants will be provided with a detail description of the injuries and photographs of the scene.		Closed	July 24 2020	August 2020
2020-3	Fingerprint detection, enhancement and identification	Items collected from crime have been submitted for fingerprinting. The participant laboratory will be asked to examine the items for any latent fingerprint present. Enhancement techniques may be required. Any prints collected will need to be compared to comparison prints supplied. Participants will be provided with a number of paper-based items		Closed	August 28 2020	September 2020
2020-4	Chemical Criminalistics – Fibres	A break in and robbery occurred at a private home. Access was gained by breaking a window. Clothing from a number of suspects has been seized. Participants will be provided with samples of fabric collected from the broken glass and samples of the suspects' clothing.		Delayed until further notice		
2020-5	Document Examination	A document has been located and seized by Police investigating a corruption allegation. The person whose signature is on the document denies signing it. The disputed and specimen signatures will be provided to participant laboratories, with a request to provide investigators with any information regarding the signature, and whether it is genuine. Participants will be provided with a number of high-quality images of the documents and signatures to examine.	June 2020	July 2020	September 2020	November 2020
2020-6	Chemical Criminalistics - Glass	A break in and robbery occurred at a private home. Access was gained by breaking a window. Clothing from a number of suspects has been seized. Participants will be provided with samples of the glass from the scene and the debris collected from the suspects' clothing.	July 2020	August 2020	October 2020	December 2020
2020-7	Forensic Biology – Biological examination, BPA and DNA	Following the assault described in 2020-2, a number of suspects have been located. Participants will be provided with the clothing of the victim and of the 3 suspects.	August 2020	September 2020	November 2020	January 2021

2020-8	Chemical Criminalistics – Architectural Paint	Entry to an unoccupied beach house was gained by jamming the backdoor. Both the door frame and the paint were damaged. Tools were collected from a number of persons known to police. Participants will be provided with samples of paint from the door frame and the tools collected for examination and possible comparison of any paint found to the reference sample.	September 2020	October 2020	December 2020	February 2021
2020-10	Forensic Biology – Biological examination and DNA -2	The complainant had been allegedly assaulted by an unknown number of assailants. Participants will be provided with the clothing of the complainant and the 3 suspects.	November 2020	December 2020	February 2021	April 2021
<b>Interlaboratory Collaborative Trials</b>						
2020-11	Forensic Palynology	Examination of botanical material adhering to plastic packaging of blocks of illicit drugs. Participants will be provided with tape lifts from the packaging.	Cancelled			
2020-12	Digital Forensics	Examination of material stored in the 'Cloud' and comparison with material on seized computers.	Postponed until 2021			
2020-13	Forensic Drug Analysis	Examination of chromatographs produced following the analysis of a number of unknown compounds located in an alleged Clandestine Laboratory.	August 2020	September 2020	November 2020	January 2021
2020-9	Chemical Criminalistics – Ignitable fluid residue	A fire occurred in a residential dwelling. A sample of the carpet was collected, as the burn patterns indicated that it may have been deliberately lit. Participants will be provided with the sample of carpet.	October 2020	November 2020	January 2021	March 2021
2020-14	Forensic Odontology	Examination and comparison of dental material.	October 2020	November 2020	January 2021	March 2021

## 2020 Program in detail

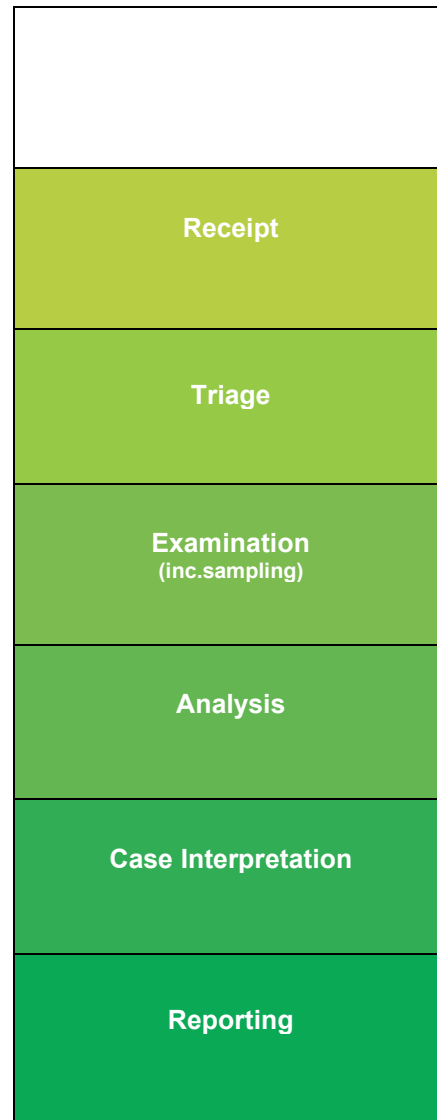
### 2020-1 Forensic Biology – Biological examination and DNA

#### Scenario

A female complainant has been sexual assaulted.  
Participants will be provided with the complainant's, medical samples and reference sample.  
Reference samples will also be provided from the suspects

Closed	
Results submitted	May 2020
Final Report distributed	July 2020

The following aspects of the forensic process will be examined:



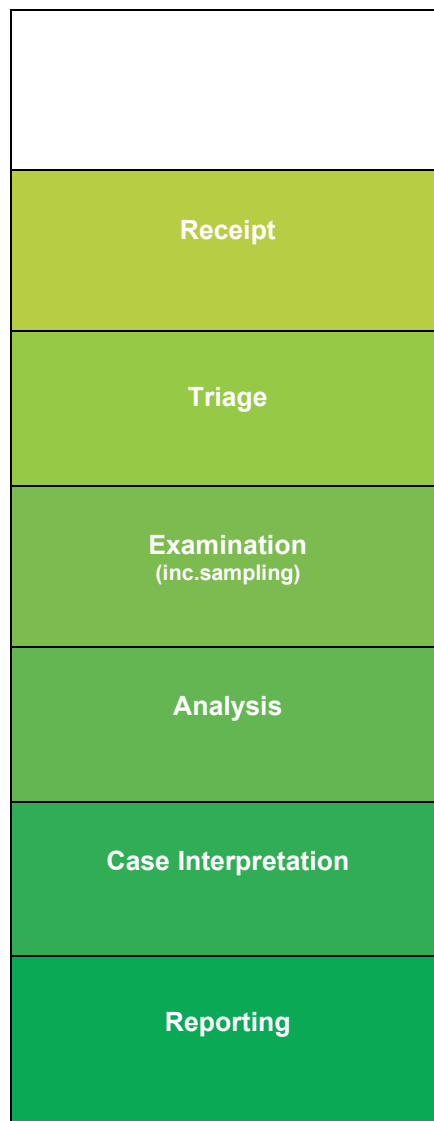
## 2020-2 Biology/ Crime Scene Examination

### Scenario

An elderly man attended the emergency department with lacerations to his head, face and arms. He has no recollection of how the injuries were sustained. A property is located which may be the scene of the assault. Is the blood staining at this property consistent with the injuries sustained? Participants will be provided with a detail description of the injuries and photographs of the scene.

Closed	
Results submitted	June 2020
Final Report distributed	August 2020

The following aspects of the forensic process will be examined:





## 2020-3 Fingerprint detection, enhancement and identification

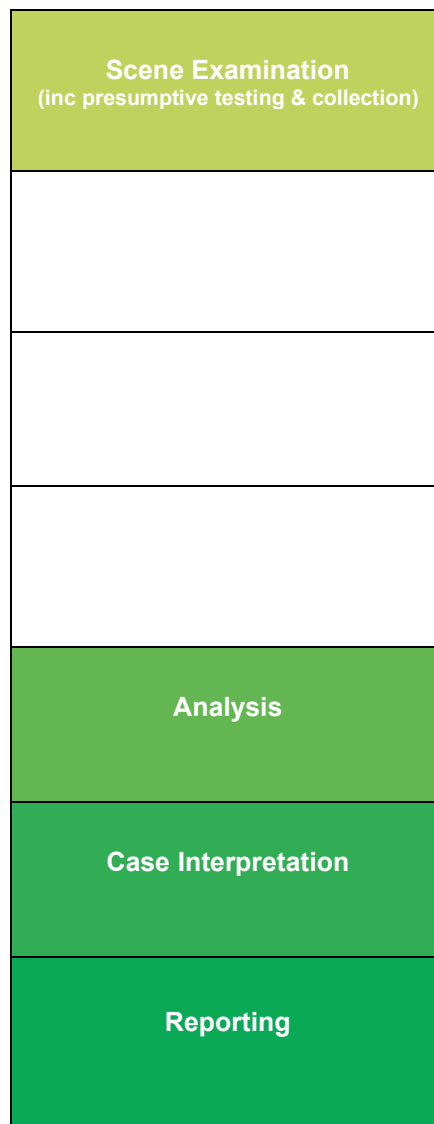
### Scenario

Items collected from crime have been submitted for fingerprinting. The participant laboratory will be asked to examine the items for any latent fingerprint present. Enhancement techniques may be required. Any prints collected will need to be compared to comparison prints supplied.

Participants will be provided with a number of paper-based items

Closed	
Results submitted	July 2020
Final Report distributed	September 2020

The following aspects of the forensic process will be examined:



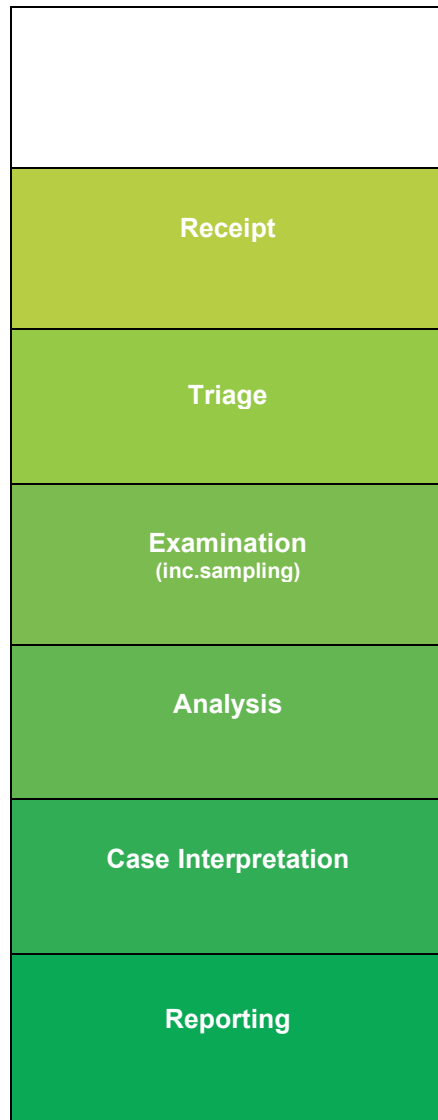
## 2020-4 Chemical Criminalistics – Fibres

### Scenario

A break in and robbery occurred at a private home. Access was gained by breaking a window  
Clothing from a number of suspects has been seized.  
Participants will be provided with samples of fabric collected from the broken glass and samples of the suspects' clothing

Delayed until further notice

The following aspects of the forensic process will be examined:



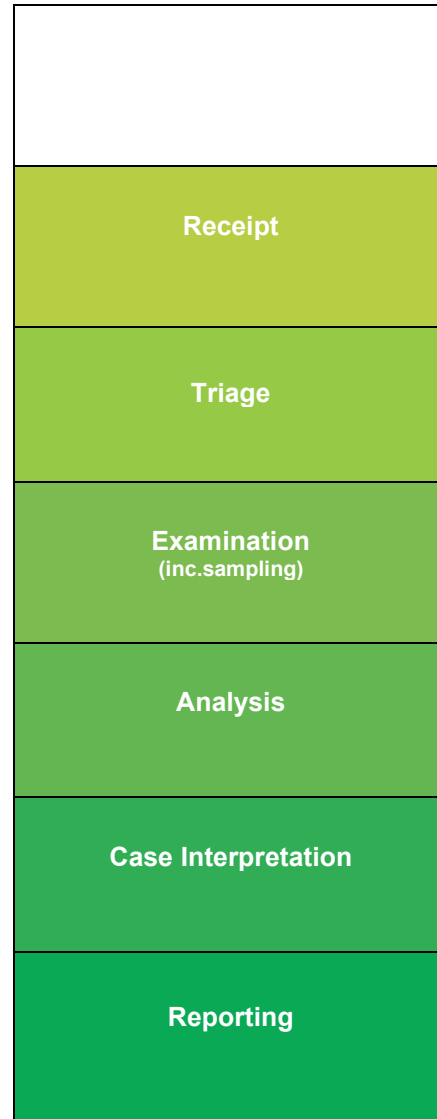
## 2020-5 Document Examination

### Scenario

A document has been located and seized by Police investigating a corruption allegation. The person whose signature is on the document denies signing it. The disputed and specimen signatures will be provided to participant laboratories, with a request to provide investigators with any information regarding the signature, and whether it is genuine. Participants will be provided with a number of high-quality images of the documents and signatures to examine.

Last date for orders	June 2020
Distribution	July 2020
Results submitted	September 2020
Final Report distributed	November 2020

The following aspects of the forensic process will be examined:



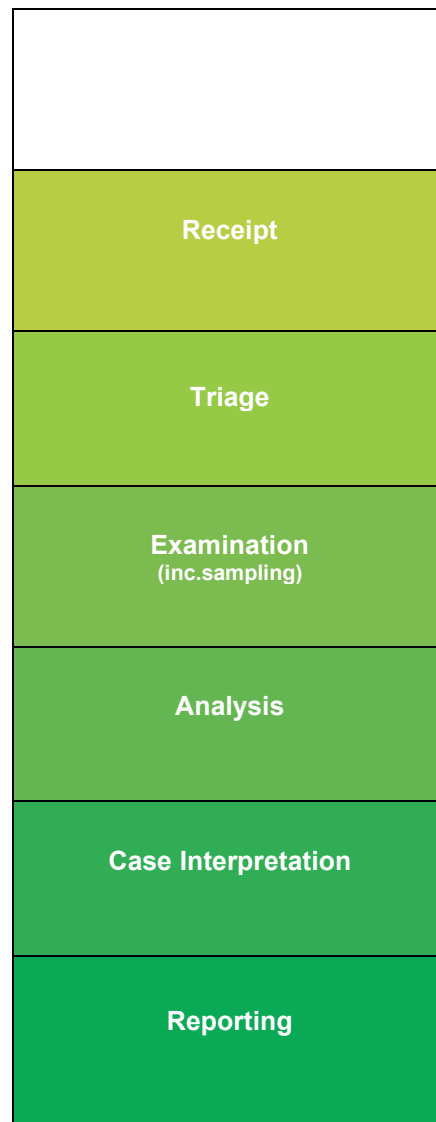
## 2020-6 Chemical Criminalistics - Glass

### Scenario

A break in and robbery occurred at a private home. Access was gained by breaking a window  
Clothing from a number of suspects has been seized.  
Participants will be provided with samples of the glass from the scene and the debris collected from the suspects' clothing.

Last date for orders	July 2020
Distribution	August 2020
Results submitted	October 2020
Final Report distributed	December 2020

The following aspects of the forensic process will be examined:



## 2020-7 Forensic Biology – Biological examination, BPA and DNA

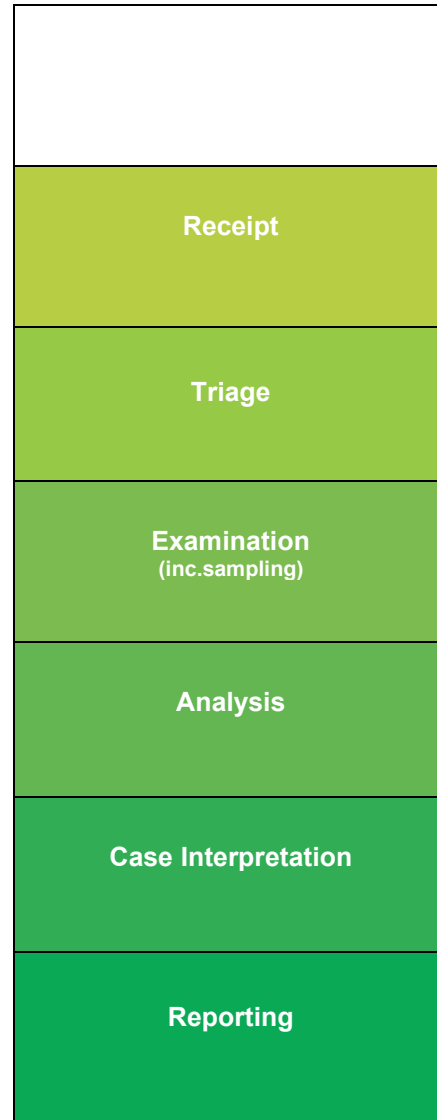
### Scenario

Following the assault described in 2020-2, a number of suspects have been located.

Participants will be provided with the clothing of the victim and of the 3 suspects.

Last date for orders	August 2020
Distribution	September 2020
Results submitted	November 2020
Final Report distributed	January 2021

The following aspects of the forensic process will be examined:



## 2020-8 Chemical Criminalistics – Architectural Paint

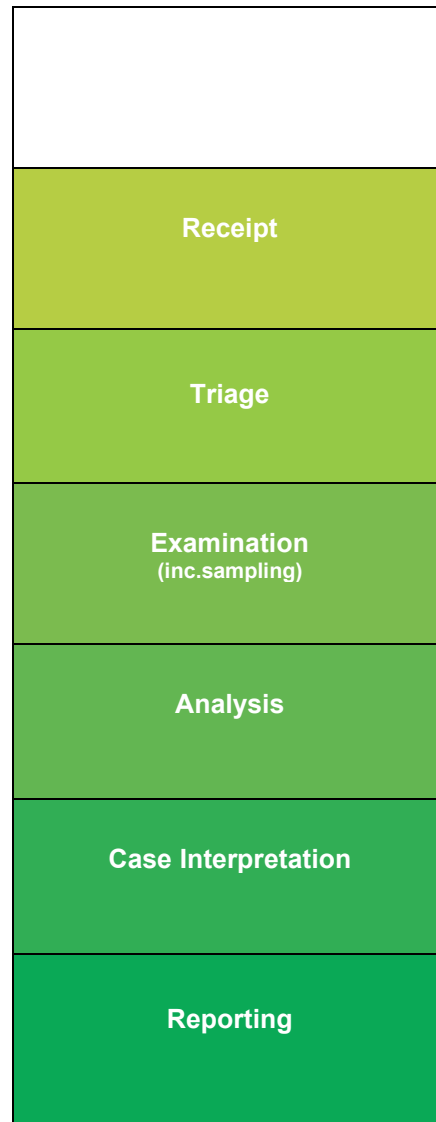
### Scenario

Entry to an unoccupied beach house was gained by jamming the backdoor. Both the door frame and the paint were damaged. Tools were collected from a number of persons known to police.

Participants will be provided with samples of paint from the door frame and the tools collected for examination and possible comparison of any paint found to the reference sample.

Last date for orders	September 2020
Distribution	October 2020
Results submitted	December 2020
Final Report distributed	February 20201

The following aspects of the forensic process will be examined:



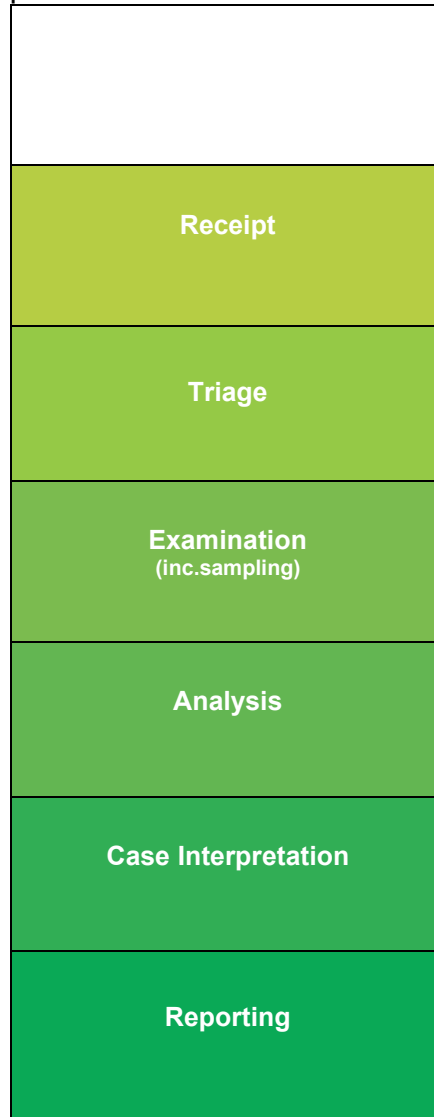
## 2020-9 Chemical Criminalistics – Ignitable fluid residue

### Scenario

A fire occurred in a residential dwelling.  
A sample of the carpet was collected, as the burn patterns indicated that it may have been deliberately lit.  
Participants will be provided with the sample of carpet.

Last date for orders	October 2020
Distribution	November 2020
Results submitted	January 2021
Final Report distributed	March 2021

The following aspects of the forensic process will be examined:



## 2020-10 Forensic Biology – Biological examination and DNA -2

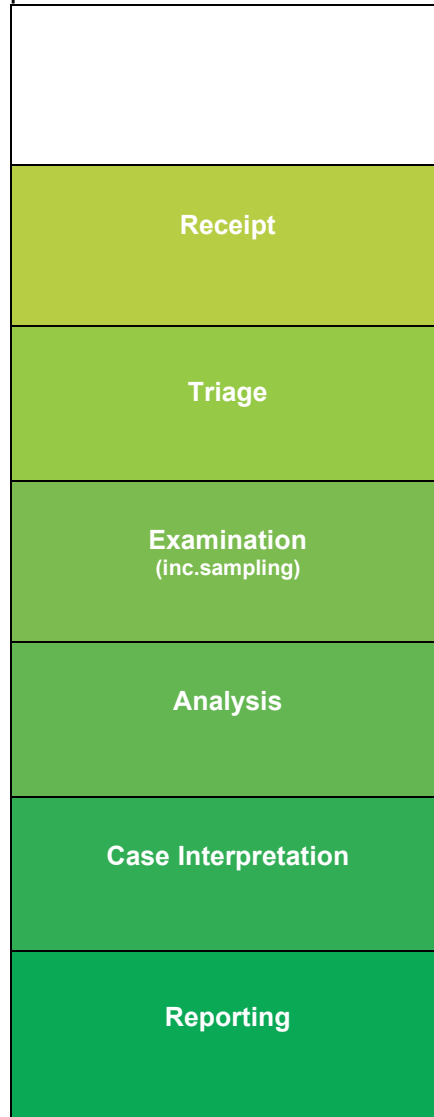
### Scenario

The complainant had been allegedly assaulted by an unknown number of assailants.

Participants will be provided with the clothing of the complainant and the 3 suspects.

Last date for orders	November 2020
Distribution	December 2020
Results submitted	February 2021
Final Report distributed	April 2021

The following aspects of the forensic process will be examined:





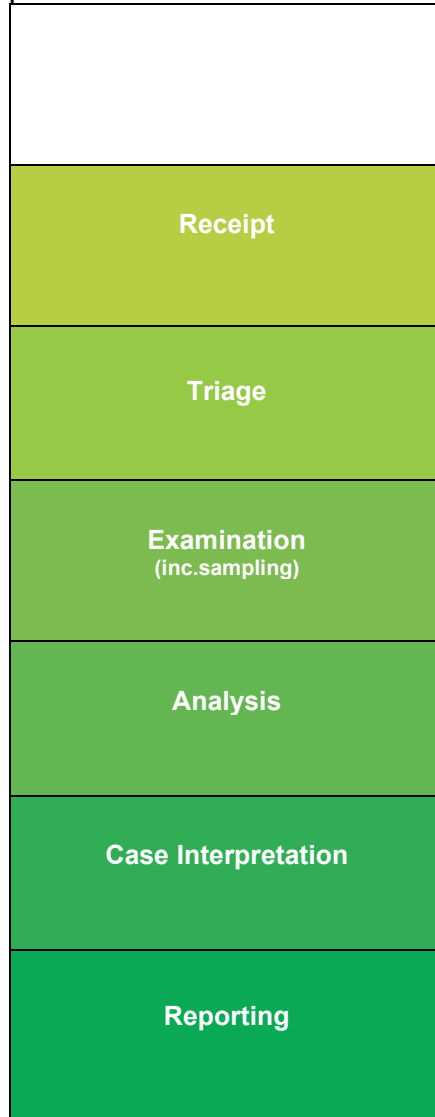
**2020-11 Forensic Palynology Inter-laboratory collaborative trial**

Scenario

Examination of botanical material adhering to plastic packaging of blocks of illicit drugs. Participants will be provided with tape lifts from the packaging.

Cancelled

The following aspects of the forensic process will be examined:



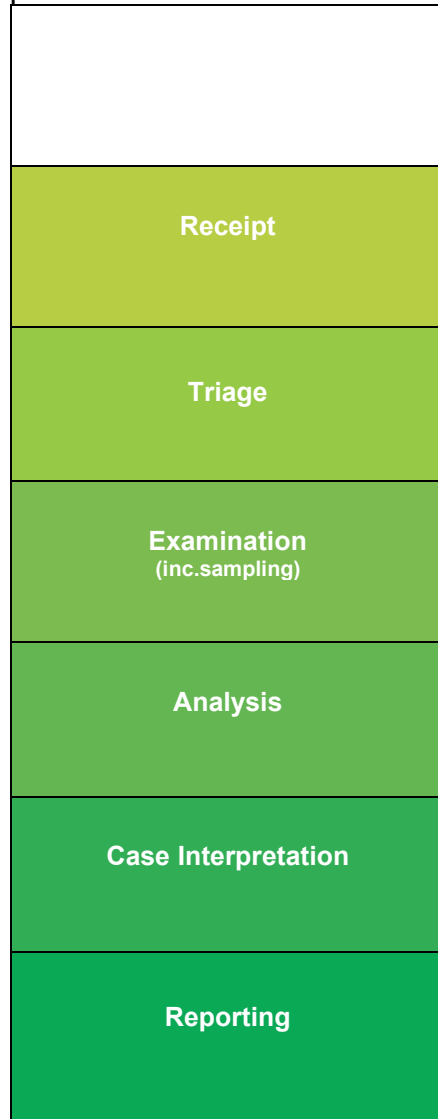
## 2020-12 Digital Forensics

### Scenario

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

Postponed until 2021

The following aspects of the forensic process will be examined:



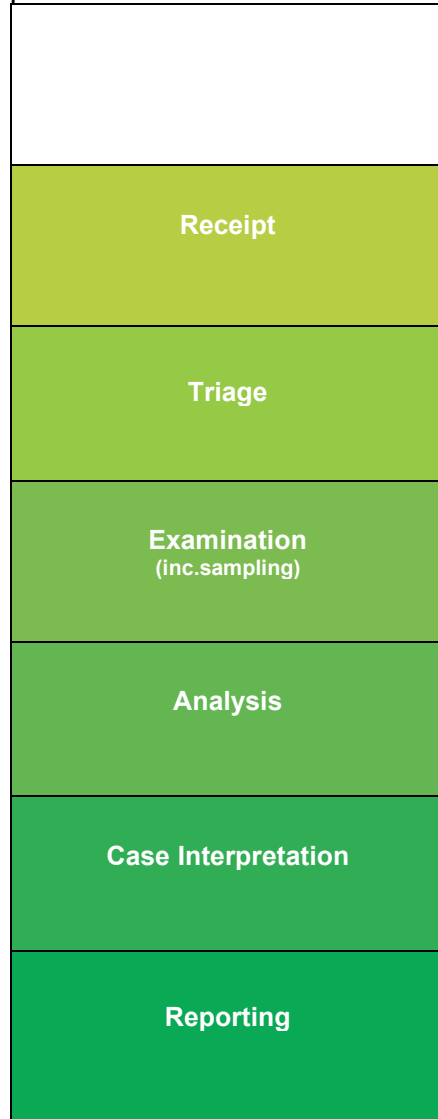
## 2020-13 Forensic Drug Analysis

### Scenario

Examination of chromatographs produced following the analysis of a number of unknown compounds located in an alleged Clandestine Laboratory.

Last date for orders	August 2020
Distribution	September 2020
Results submitted	November 2020
Final Report distributed	January 2021

The following aspects of the forensic process will be examined:



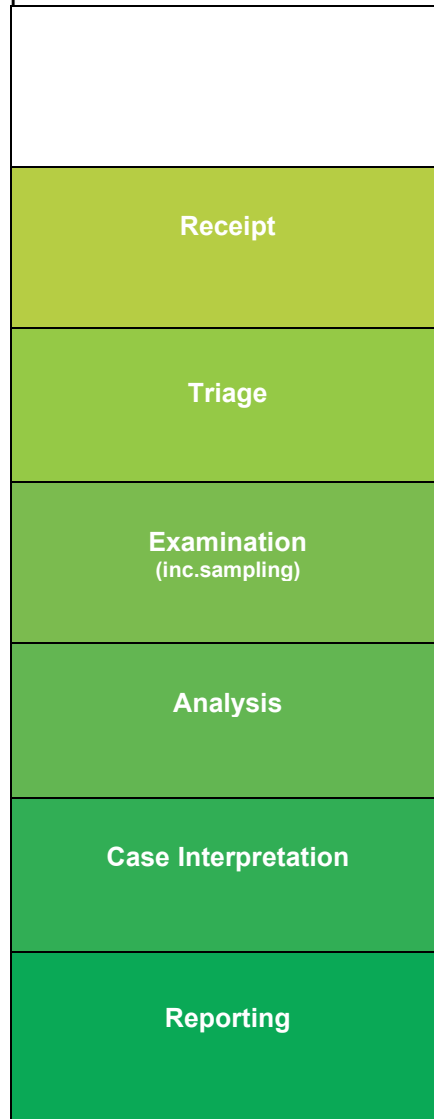
## 2020-14 Forensic Odontology

### Scenario

Examination and comparison of dental material.

Last date for orders	October 2020
Distribution	November 2020
Results submitted	January 2021
Final Report distributed	March 2021

The following aspects of the forensic process will be examined:

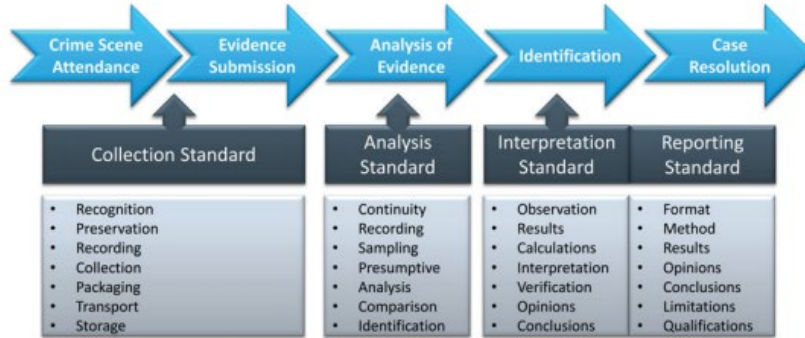


## Appendix A

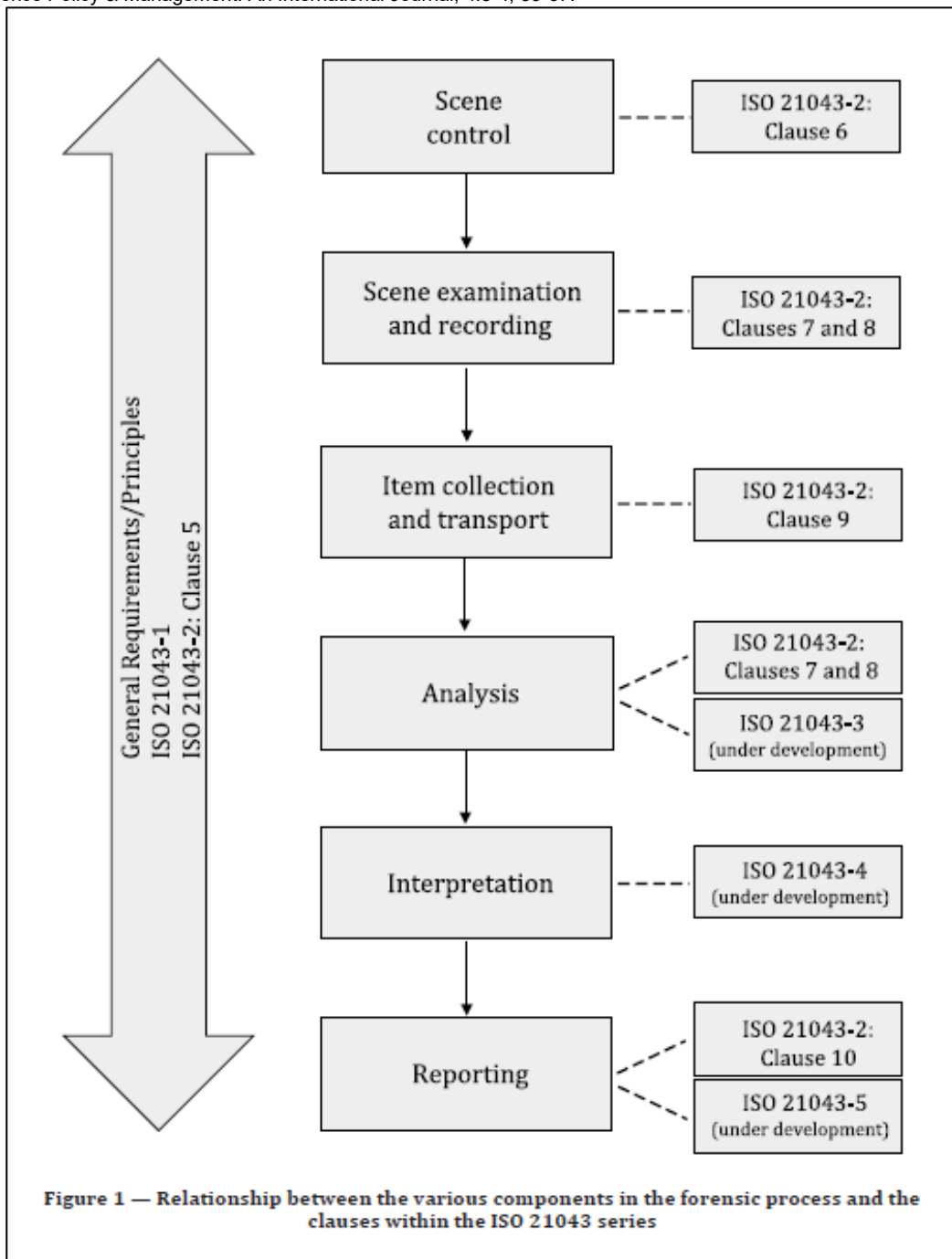
Phase	Internal context (Risk to organization)	External context (Risk to clients inc. justice system and community)
Scene / laboratory examination (inc. presumptive testing and collection)	<b>Continuity</b> <ul style="list-style-type: none"> <li>transcription errors,</li> <li>issues relating to sealing of items,</li> <li>incorrect descriptions,</li> <li>sample mix up misidentification</li> </ul> <b>Examination / analysis</b> <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> <b>Interpretation / reporting</b> <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.



**Figure 1 — Relationship between the various components in the forensic process and the clauses within the ISO 21043 series**



## Appendix C



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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.