

NATS 1008 FORENSIC SCIENCE

Credit Points 10

Legacy Code 300806

Coordinator Brenden Riley (<https://directory.westernsydney.edu.au/search/name/Brenden Riley/>)

Description This unit aims to give students a basic understanding of scientific methodology as it applies to the collection, analysis and interpretation of forensic evidence. Students are introduced to a range of crime scene investigation methods and analysis methods that are used with various types of forensic evidence. The concept of individualisation is introduced and the importance of this concept in forensic science is explained. Case studies are used to explain the concepts discussed in this unit. The role of human factors is discussed, together with the importance of critically evaluating forensic evidence and the means by which it was obtained.

School Science

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 1 subject

Equivalent Subjects NATS 1006 - Forensic Science NATS 1007 - Forensic Science

Assumed Knowledge

Basic academic skills, including the ability to write essays in English at a level appropriate to a first-year undergraduate student.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Identify physical evidence and determine its significance and value.
2. Explain the use of basic scientific methodology as it applies to the collection, analysis and interpretation of forensic evidence.
3. Describe the basic principles of collecting and conserving forensic evidence and give examples of standard procedures for maintaining evidence integrity and continuity.
4. Apply identification concepts and methodologies to the collection, analysis and interpretation of evidence.
5. Describe the value of trace evidence to forensic investigations, and explain the ways in which it may be collected and analysed.
6. Evaluate case studies to illustrate a range of possible deficiencies in the way in which forensic evidence may be collected, analysed and interpreted.
7. Critically evaluate the role of expert witnesses in the justice system.
8. Communicate the results of forensic investigation correctly in written form, using an appropriate language style, placing the findings in context of the forensic investigation.

Subject Content

Explanation of what is considered physical evidence and the purpose of collecting and analysing physical evidence

Basic scientific methodology as it applies to the collection, analysis and interpretation of forensic evidence

Principles of collecting and conserving forensic evidence, including crime-scene protection, contemporaneous note taking, chain of custody, and quality management

Presumptive testing and its role in crime scene investigation

An introduction to spectroscopy and its incorporation in crime scene investigation

The concepts of evidence integrity and continuity

History of the concept of identification and its development

Identification concepts and methodology, including pattern matching / comparative analysis, classification, elimination of suspects and databases

Analysis of a range of forensic evidence and its interpretation within the concept of identification

The role of the expert witness within the justice system, including presentation of evidence, and an introduction to the Australian judicial system

An introduction to contemporary issues in forensic science

Quality Control and Quality Assurance in evidence handling and forensic analysis

A range of case studies, including satisfactory and unsatisfactory use of forensic evidence

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Practical case file	~ 1000 words in total (written during the practicals)	20	N	Both (Individual & Group)
Essay	1,500 words	30	N	Individual
Final Exam	2 hrs	50	N	Individual

Prescribed Texts

- Saferstein, R. 2015, Criminalistics: an introduction to forensic science, 11th edn, Prentice Hall, Upper Saddle River, NJ

Teaching Periods

2022 Semester 1

Hawkesbury

Day

Subject Contact Brenden Riley (<https://directory.westernsydney.edu.au/search/name/Brenden Riley/>)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1008_22-AUT_HW_D#subjects)