NATS 1027 FORENSIC SCIENCE (WSTC)

Credit Points 10

Legacy Code 700330

Coordinator Phillip Newman (https://directory.westernsydney.edu.au/search/name/Phillip Newman/)

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

Discipline Forensic 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

Restrictions Students must be enrolled at the College. Students in extended programs must pass 40 CPs of preparatory subjects prior to enrolling in this unit

Assumed Knowledge

Students must be enrolled at the College. Extended students need to have passed 40 CPs of preparatory subjects in order to enrol in this subject.

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	1000 words in total over the practicals (performed during the practicals	20	N	Individual
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

Autumn

Hawkesbury

Day

Subject Contact Phillip Newman (https://directory.westernsydney.edu.au/search/name/Phillip Newman/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1027_22-AUT_HW_D#subjects)