

# NATS 7004 BLOOD DISTRIBUTION AND SPATTER

**Credit Points** 10

**Legacy Code** 301149

**Coordinator** Hayley Green ([https://directory.westernsydney.edu.au/search/name/Hayley Green/](https://directory.westernsydney.edu.au/search/name/Hayley%20Green/))

**Description** This subject will provide an in-depth review of the principles of blood spatter creation, and blood stain interpretation as it pertains to biological evidence. This subject is taught by the University of Florida as part of a collaborative venture between the University of Florida and Western Sydney University. Note: Further information on this subject is available from the University of Florida.

**School** Science

**Discipline** Forensic Science

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Postgraduate Coursework Level 7 subject

## Restrictions

Students must be enrolled in 3741 Master of Forensic Science, 3742 Graduate Diploma in Forensic Science or 3743 Graduate Certificate in Forensic Science.

## Learning Outcomes

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

1. To understand the function of blood spatter interpretation in crime scene reconstruction
2. To be familiar with the terminology used routinely in blood spatter interpretation
3. To understand the function and structural differences of specified components of the circulatory system
4. To understand the physiological mechanisms initiated when the circulatory system is breached or damaged
5. To know the physical and chemical nature of blood
6. To understand the physical forces that are involved in the flight and droplet dynamics of blood
7. To understand the geometric parameters used to determine the angle of impact of blood
8. To understand the parameters involved in determining directionality of blood spatters
9. To understand the means of determining the point of convergence and the point of origin of blood staining
10. To know the identifying characteristics of different types of bloodstains
11. To understand the importance and methods of crime scene documentation and reconstruction
12. To understand the legal and forensic implications of blood spatter interpretation and the limitations of data interpretation for courtroom testimony

## Subject Content

Module 1 Blood stain pattern analysis

Module 2 Hemodynamics and Blood as a medium  
 Module 3 Motion and directionality  
 Module 4 Point of convergence and point of origin  
 Module 5 Impact spatter blood stains  
 Module 6 Characteristic blood patterns  
 Module 7 Documentation and crime scene reconstruction  
 Module 8 Legal and forensic implications

## 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.

| Type       | Length        | Percent | Threshold | Individual/ Group Task | Mandatory |
|------------|---------------|---------|-----------|------------------------|-----------|
| Final Exam | Not specified | 100     | N         | Individual             | N         |

Prescribed Texts

- Principles of Bloodstain Pattern Analysis: Theory and Practice (Practical Aspects of Criminal & Forensic Investigations) May 26, 2005 by Stuart H. James (Author), Paul E. Kish (Author), T. Paulette Sutton (Author) ISBN-13: 978-0849320149 ISBN-10: 0849320143 Edition: 3rd

Teaching Periods

## Uni of Florida - Term 1 (2025)

### Online

#### Online

**Subject Contact** Hayley Green ([https://directory.westernsydney.edu.au/search/name/Hayley Green/](https://directory.westernsydney.edu.au/search/name/Hayley%20Green/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=NATS7004\\_25-FT1\\_ON\\_2#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS7004_25-FT1_ON_2#subjects))

## Uni of Florida - Term 2 (2025)

### Online

#### Online

**Subject Contact** Hayley Green ([https://directory.westernsydney.edu.au/search/name/Hayley Green/](https://directory.westernsydney.edu.au/search/name/Hayley%20Green/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=NATS7004\\_25-FT2\\_ON\\_2#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS7004_25-FT2_ON_2#subjects))