

NATS 7059 FORENSIC DIGITAL IMAGING

Credit Points 10

Legacy Code 301442

Coordinator Chris Lennard ([https://directory.westernsydney.edu.au/search/name/Chris Lennard/](https://directory.westernsydney.edu.au/search/name/Chris%20Lennard/))

Description This online unit is designed to provide an in-depth knowledge of scientific and forensic imaging. Forensic digital imaging serves important functions within forensic science for the purpose of scene and item documentation, detection and enhancement of forensic evidence, and as a means of communicating forensic observations and interpretations. The unit includes modules covering the following areas: physics of light, colour and optics; forensic photographic lighting techniques; image recording systems; image processing; and principles of forensic photography and imaging. This unit is taught by the University of Lausanne, Switzerland, as part of a collaborative venture between Western Sydney University and the University of Lausanne.

School Science

Discipline Forensic Science

Student Contribution Band HECS Band 2 10cp

Level Postgraduate Coursework Level 7 subject

Restrictions

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

Assumed Knowledge

Good general science knowledge (including physics and mathematics).

Learning Outcomes

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

1. Describe the fundamentals of light, colour and optics
2. Discuss the basis behind photography, digital imaging and image processing
3. Understand the handling and adjustment of cameras and lenses
4. Select and use appropriate image processing tools
5. Choose and implement forensic lighting techniques
6. Explain advanced techniques in forensic photography and image processing
7. Identify solutions for real-world forensic photography problems
8. Discuss the principles of scientific photography applied to forensic science
9. Employ non-destructive digital image workflows and follow recommended operating procedures from image capture through to final output, ensuring that physical and judicial integrity of photographic evidence is preserved

Subject Content

1. Physics of light, colour and optics
2. Lenses and lens aberrations
3. Photographic sensors and filters
4. Photographic lighting techniques

5. Image recording systems
6. Digital image processing
7. Image processing workflows
8. Scientific and forensic photography and imaging

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
Quiz	5 x 1 h	40	N	Individual
Essay	700 words	20	N	Individual
Practical	3 h	20	N	Individual
Quiz	2 h	20	N	Individual

Teaching Periods

Uni of Florida/Canberra-Term 3 Online

Online

Subject Contact Chris Lennard ([https://directory.westernsydney.edu.au/search/name/Chris Lennard/](https://directory.westernsydney.edu.au/search/name/Chris%20Lennard/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS7059_22-FT3_ON_O#subjects)