CRJU211

Forensic Science for Criminal Justice

General Course Information - 2023

AIM

The course is designed to introduce forensic science to non-scientists, particularly students with an interest in criminal justice and law. The course will be presented by a single lecturer (with several guest lecturers) who will 'translate' the complex science underpinning forensic investigations for an ostensibly non-scientific audience. At the end of the course, students will appreciate the complexity of the science involved in forensic investigations and the crucial role that forensic science can play in criminal investigations.

The course is very broad, covering aspects of forensic science from post mortem examination through the complexities of DNA to forensic toxicology and pretty well everything in-between! Taking this course will give you an appreciation of forensic science that will stand you in good stead when you deal with cases involving forensic science in the future.

PREREQUISITES

30 points of 100 level Law.

RESTRICTIONS

CHEM111, CHEM114, BIOL111, BIOL112, BIOL113

COORDINATOR

Professor Ian Shaw, School of Physical & Chemical Sciences, von Haast 736, ian.shaw@canterbury.ac.nz, phone 369 4302 (extension 94302).

LECTURERS

Professor Ian Shaw and guest lecturers

TIMETABLE

Lectures: Two hours of lectures per week. Details to be confirmed on My Timetable and the web.

Tutorials: One hour of tutorials per fortnight. Details to be confirmed on My Timetable and the web.

Students should note that on average you should expect to do approximately 4.5 hours of additional study for each hour of lectures.

TEXTBOOKS

This is a very broad course that is not aimed at students wishing to become forensic science practitioners (or experts); there is no single textbook that covers everything in the course at the right level. The University library has a good collection of books covering forensic science – you can find them in the Main Library at HV8073. The best books in my opinion are:

Siegel & Mirakovits, Forensic Science, CRC Press (Taylor & Francis)

James & Nordby, Forensic Science – An Introduction to Scientific and Investigative Techniques, CRC Press (Taylor & Francis)

Gaensslen, Harris & Lee, Introduction to Forensic Science & Criminalistics, McGraw Hill (out of print, but in the Library)

White (ed.) Crime Scene to Court – the Essentials of Forensic Science, Royal Society of Chemistry.

A future textbook: Shaw & Sandiford, Forensic Science – the Science Behind the Truth, Royal Society of Chemistry Publishing, due mid-2023

WEB-BASED RESOURCES

Lectures will be presented with the aid of PowerPoint. The PowerPoint presentations are designed to lead you through the subject matter and will be on Learn to aid your study. In addition, lectures will be recorded and will be available for ONE WEEK on Learn following the lecture.

ASSESSMENT

Tutorial assignment: 50% (mid semester) – Date to be advised

Exam: 50% (mid-year exam period)

ASSIGNMENT EXTENSIONS AND SPECIAL CONSIDERATION APPLICATIONS

The Final Exam can be the subject of a Special Consideration Application. However, the Special Consideration process is not available for the Essay. An Extension of Time for completion may be applied for in relation to the Essay and may be granted without penalty to complete the work. Please see the Bachelor of Criminal Justice Handbook for further information. The Handbook can be found at this link: https://www.canterbury.ac.nz/law/criminal-justice/

The Exam is a formal exam administered by the University. Students are expected to be able to sit their Exam as timetabled. Alternative arrangements are allowed only very rarely and only in exceptional circumstances which are beyond the student's control. Strict criteria apply in these situations. For information about alternative sitting arrangements in that case, the criteria is set out by Student Services and published at http://www.canterbury.ac.nz/acad/exams/clashes.shtml

LEARNING OUTCOMES

At the end of the course you will:

- understand the basic principles of forensic science,
- be aware of the science underpinning forensic science techniques,
- understand how a crime scene is investigated (and samples collected) to preserve forensic evidence,
- understand how forensic techniques (e.g., DNA, fingerprints, fibre/hair comparisons) are applied to criminal case investigations.
- understand how forensic science results are brought together as part of the overall evidence in a criminal case,
- understand the value and reliability of forensic science results as evidence in Court,
- be aware of forensic science case examples.

SUMMARY OF COURSE CONTENT

The course covers a broad array of forensic science topics, including:

History of forensic science
Principles of forensic science
Crime scene in investigation
Forensic biology
DNA in criminal detection
Fingerprints
Forensic chemistry
Forensic toxicology
Forensic pathology
Māori tikanga relevant to forensic investigations
Forensic psychology
Firearms
Document examination
Interpreting forensic results
Probability in forensic investigations
Presenting forensic evidence in Court

RESPONSE TO NZ's COVID-19 SITUATION

In the event that giving lectures in person presents too great a risk for both students and lecturers, we will move to podcast presentations. These will be specially prepared recordings used in conjunction with PowerPoint presentations. They will be uploaded onto Learn at the lectures' scheduled times. In person tutorials will be replaced by podcast tutorials based on emailed questions to the lecturer (s/he will request questions in the week running up to the scheduled tutorial).

DISHONEST OR IMPROPER PRACTICES

Students are reminded that the Law School and University take a strong stance on dishonest practices, and that such practices result in very significant disciplinary penalties, including exclusion from the University. Particularly for law students, such penalties are very likely to impair a person's future career prospects.

Dishonest practice includes:

- Plagiarism (the copying of any material from any other source without proper attribution);
- Collusion (material written by other persons but submitted as if completed by the author alone. Note: this is not to be taken in any way as a discouragement to verbal discussions with one another about the essay or question, and how to approach the task – oral exchanges of ideas can be very valuable);
- Copying (reproduction or adaptation of work written by other students with or without permission);
- Ghost writing (use of another person to prepare all or part of an item of work submitted for assessment).