Module specification

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NOTE: This module has some bilingual delivery and so this specification will also be made available in Welsh.

Module Code	SCI554
Module Title	Forensic Evidence & Quality Management
Level	5
Credit value	20
Faculty	FAST
HECoS Code	100388
Cost Code	GAFS

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BSc (Hons) Forensic Science	Core
BSc (Hons) Forensic Science with Placement Year	Core

Pre-requisites

None

Breakdown of module hours

Learning and teaching hours	20 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	10 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	**30 hrs**
Placement / work based learning	0 hrs
Guided independent study	170 hrs
Module duration (total hours)	**200 hrs**

Module aims

In this module, student will develop an understanding of the importance of quality control and management in their approach to identifying and analysing forensic evidence in a laboratory setting. They will investigate a range of evidence types, demonstrating a systematic approach to the recovery and appropriate forensic procedures in receipt, analysis, documentation, and storage of exhibits. The module encourages analytical thinking skills as well as asking students to justify their work and present clearly the potential complexity of investigations.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Explore procedures used to preserve, analyse, and record a range of forensic evidence in a laboratory setting.
2	Demonstrate appropriate practical techniques for laboratory-based processing of forensic exhibits.
3	Produce a range of appropriate documents in line with laboratory quality management processes.
4	Draw conclusions and report on the results of the analysis of forensic evidence.

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment 1: Practical (~2 Hours)

Students will complete a practical assessment where they will investigate, in the laboratory, a range of forensic exhibits from both volume and major crime. They must demonstrate competence in a range of methods used for the location, recovery and extraction of the commonly encountered physical, chemical, and biological trace materials whilst being aware of the timeliness within which the investigator must work, maintain professional behaviour throughout.

Assessment 2: Portfolio (~2000 Words)

Based on the practical tasks completed in Assessment 1 student will collate a portfolio of documents and records related to the analysis and interpretation of forensic evidence. This will include but is not limited to, laboratory notes, sketches and photographs, evidence of continuity and chain of custody, alignment with quality management standards.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1&2	Practical	50%
2	3&4	Portfolio	50%

Derogations

None

Learning and Teaching Strategies

The module will be delivered in line with the University's Active Learning Framework including:
Lectures: To provide students with a comprehensive overview of key concepts & principles.
Seminars: To allow students to engage with the material & explore different perspective while providing an opportunity for students to ask questions & clarify concepts.
Laboratory work: To provide students with hands-on experience in evidence analysis. Students develop practical skills & apply concepts learned in lectures & discussions.
Online resources: To supplement classroom learning by providing students with additional information & visual aids to further their understanding of the material.
Self-directed study: To empower students to take responsibility for their own learning and to explore topics of interest in more depth.

Indicative Syllabus Outline

- Physical Evidence Types
- Class & Individual Characteristics
- Presumptive Testing
- Transfer & Persistence
- Chain of Custody
- Contamination avoidance procedures
- Quality Assurance & Management
- Regulatory Frameworks
- Forensic Science Regulator's: Codes of Practice and Conduct
- ISO 17025
- ILAC G19 06 2022
- Receipt and Recording of Exhibits
- Reporting on Laboratory Analysis
- Independence within the investigative process.
- The nature and potential impact of cognitive bias.
- Welsh Language Skills for the Forensic workplace
- Legislation & compliance

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads
Langford, A., Dean, J.R., Weyers, J.D.B., Holmes, D., Reed, R.H. & Jones, A.M. (2018), *Practical Skills in Forensic Science*, 3rd Edition, London: Pearson Education.

Other indicative reading
Barbaro, A. (2021), *Manual of Forensic Science: An International Survey*, London: Taylor & Francis Group.

Dale, W.M. & Becker, W.S. (2021), *Forensic Laboratory Management: Applying Business Principles,* United Kingdom: Taylor & Francis Group.

Doyle, S. (2018), *Quality Management in Forensic Science,* London: Elsevier Science.

ILAC-G19:06/2022 – *Modules in a Forensic Science Process*

ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*

Welsh language development
Gruffudd, H. (2018), *Learn Welsh – Phrasebook & Basic Grammar*, Wales: Y Lolfa.

Lewis, D.G. (2018), *DIY Welsh: Your step-by-step guide to building Welsh sentences*, Wales: Gomer Press.

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

Core Attributes
Engaged
Ethical

Key Attitudes
Commitment
Curiosity
Resilience
Confidence
Adaptability

Practical Skillsets
Organisation
Leadership & Team working
Critical Thinking
Communication