

University of the West of Scotland

Module Descriptor

Session: 2024/25

Title of Module: Fundamentals of Digital Forensics			
Code: COMP11079	SCQF Level: 11 (Scottish Credit and Qualifications Framework)	Credit Points: 10	ECTS: 5 (European Credit Transfer Scheme)
School:	School of Computing, Engineering and Physical Sciences		
Module Co-ordinator:	Sean Sturley		
Summary of Module			
<p>This module introduces student to the main concepts of forensic investigation and allows for a detailed understanding of each stage of an investigation; from the initial seizure, analysis, interpretation and presentation of conclusions.</p> <p>Through a number of problem-based scenarios the students will learn both the practical and theoretical elements of forensic investigation, from the initial creation of a forensic image, the use of forensic tools to both investigate and maintain the integrity of the forensic image, to finally collating the evidence discovered to present a case suitable to cross examination.</p> <p>This module will work to develop a number of the key 'I am UWS' Graduate Attributes to make those who complete this module:</p> <p><u>Universal</u></p> <ul style="list-style-type: none">• Critical Thinker• Ethically-minded• Research-minded <p><u>Work Ready</u></p> <ul style="list-style-type: none">• Problem-solver• Effective Communicator• Ambitious <p><u>Successful</u></p> <ul style="list-style-type: none">• Autonomous• Resilient• Driven			

Module Delivery Method					
Face-To-Face	Blended	Fully Online	HybridC	Hybrid 0	Work-Based Learning
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

See Guidance Note for details.

Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)

Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Add name

Term(s) for Module Delivery

(Provided viable student numbers permit).

Term 1	<input checked="" type="checkbox"/>	Term 2	<input type="checkbox"/>	Term 3	<input type="checkbox"/>
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Learning Outcomes: (maximum of 5 statements)

These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module.

At the end of this module the student will be able to:

L1	Demonstrate a critical understanding of the major forensics theories, concepts and principles utilised in digital investigations.
L2	Develop and execute a digital examination strategy for a given scenario.
L3	Investigate and assess various tactics within a legitimate crime scene study to evaluate digitally collected evidence by means of learned forensics practice and techniques.

Employability Skills and Personal Development Planning (PDP) Skills

SCQF Headings	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	SCQF Level 11 Students will have comprehensive knowledge of major forensics theories, concepts and principles utilised in digital investigations.
Practice: Applied Knowledge and Understanding	SCQF Level 11 Students will develop and execute a digital examination strategy for a given scenario. Students will also investigate and assess various tactics within a legitimate crime scene study to evaluate digitally collected evidence by means of learned forensics practice and techniques.
Generic Cognitive skills	SCQF Level 11 To complete their written reports and laboratory tasks, students will first build skills to integrate information and apply knowledge from various

	sources including technology advances informed by research and industry.	
Communication, ICT and Numeracy Skills	SCQF Level 11 Working in groups, students will develop communication skills as well as the ability to write technical reports and documentation.	
Autonomy, Accountability and Working with others	SCQF Level 11 Exercise a substantial ability to work autonomously, demonstrating critical inquiry in producing quality work underpinned by rigorous investigation. Learn effectively for the purpose of continuing personal development planning through interacting with others in academic and professional bodies and organisations relevant to m- business. Demonstrate an ability to manage and work autonomously with a range of self-directed m- business related learning resources.	
Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code:	Module Title:
	Other:	
Co-requisites	Module Code:	Module Title:

*Indicates that module descriptor is not published.

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	Student Learning Hours (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	7
Tutorial/Synchronous Support Activity	7
Laboratory/Practical Demonstration/Workshop	14
Independent Study	72
	Hours Total 100

**Indicative Resources: (eg. Core text, journals, internet access)	
<p>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</p> <p>Cory Altheide and Harlan Carvey. (2011) Digital Forensics with Open Source Tools (1st Ed.). Syngress Publishing.</p> <p>Gerard Johansen. (2017) Digital Forensics and Incident Response: A practical guide to deploying digital forensic techniques in response to cyber security incidents. Packt Publishing.</p> <p>David Watson. (2013) Digital Forensics Processing and Procedures: Meeting the Requirements of ISO 17020, ISO 17025, ISO 27001 and Best Practice Requirements. Syngress Publishing.</p> <p>Please ensure the list is kept short and current. Essential resources should be included, broader resources should be kept for module handbooks / Aula VLE.</p> <p>Resources should be listed in Right Harvard referencing style or agreed professional body deviation and in alphabetical order.</p>	
<p>(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)</p>	
Attendance and Engagement Requirements	
<p>In line with the Student Attendance and Engagement Procedure: Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.</p>	

Equality and Diversity	
<p>The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.</p> <p>Please ensure any specific requirements are detailed in this section. Module Co-ordinators should consider the accessibility of their module for groups with protected characteristics..</p>	
<p>(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)</p>	

Supplemental Information

Divisional Programme Board	Computing
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Assessment Results (Pass/Fail)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
School Assessment Board	Business and Applied Computing
Moderator	Althaff Mohideen
External Examiner	N Coull
Accreditation Details	e.g. ACCA Click or tap here to enter text.
Changes/Version Number	1.06

Assessment: (also refer to Assessment Outcomes Grids below)
<p>This section should make transparent what assessment categories form part of this module (stating what % contributes to the final mark). Maximum of 3 main assessment categories can be identified (which may comprise smaller elements of assessment). NB: The 30% aggregate regulation (Reg. 3.9) (40% for PG) for each main category must be taken into account. When using PSMD, if all assessments are recorded in the one box, only one assessment grid will show and the 30% (40% at PG) aggregate regulation will not stand. For the aggregate regulation to stand, each component of assessment must be captured in a separate box. Please provide brief information about the overall approach to assessment that is taken within the module. In order to be flexible with assessment delivery, be brief, but do state assessment type (e.g. written assignment rather than “essay” / presentation, etc) and keep the detail for the module handbook. Click or tap here to enter text.</p>
Assessment 1 – Practical Examination (40%)
Assessment 2 – Coursework (60%)
<p>(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)</p>

Assessment Outcome Grids (See Guidance Note)

Component 1					
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Class Test (practical)	✓		✓	40	2

Component 2					
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Clinical/ Fieldwork/ Practical skills assessment/ Debate/ Interview/ Viva voce/ Oral	✓	✓	✓	60	8

Combined Total for All Components				100%	10 hours
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