Module Descriptor

Title	Mobile Forensics		
Session	2025/26	**Status**	Published
Code	COMP11093	**SCQF Level**	11
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Graham Parsonage		

Summary of Module

This module develops an advanced level of analysis of mobile devices. This module strengthens a student's knowledge and deepens understanding and reasoning by introducing them to alternative environments. The module develops a students' understanding of the attack surface and necessary skills to security test mobile applications and to identify vulnerabilities in the structure of the application, and the contemporary knowledge to secure against threats.

The module examines in-depth the techniques of forensic analysis of mobile devices. The ethical and professional issues/requirements of the practitioner are embedded throughout the syllabus.

Module Delivery Method	**On-Campus**[1] ☒	**Hybrid**[2] ☐	**Online**[3] ☐	**Work -Based Learning**[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☒ Lanarkshire ☐ London ☐ Paisley	☐ Online / Distance Learning ☐ Other (specify)	
Terms for Module Delivery	Term 1 ☐	Term 2 ☒	Term 3 ☐	

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Demonstrate a critical understanding of the infrastructure and protocols used to support a mobile devices.
L2	Undertake advanced digital forensic examination/investigation and analysis of mobile devices through the use of appropriate tools whilst preserving evidential integrity.
L3	Develop a critical understanding of relevant literature and quality information sources.
L4	Consider ethical issues involved and critically evaluate professional requirements of the practitioner.
L5	N/A

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 11** Critical knowledge & understanding of: the principal theories, concepts and principles; fundamental mobile device technologies; the internals of mobile devices and associated security models; the attack surface; testing and analysis techniques; the principles of security by design; mobile forensic acquisition &analysis.
Practice: Applied Knowledge and Understanding	**SCQF 11** Use specialised and advanced skills, techniques and practices.
Generic Cognitive skills	**SCQF 11** Critically identify, define, conceptualise and analyse complex problems; Offer professional insights, interpretations and solutions to problems and issues; Demonstrate some originality and creativity; Critically review and consolidate knowledge, skills, practices and thinking in the discipline; Make judgements where data/information is limited or comes from a range of sources.
Communication, ICT and Numeracy Skills	**SCQF 11** Use a wide range of advanced and specialised skills in support of established practices; Present or convey, formally and informally, information about specialised topics to informed audiences; Interpret, use and evaluate a wide range of data.
Autonomy, Accountability and Working with Others	**SCQF 11** Exercise autonomy and initiative in activities. Manage complex ethical and professional issues.

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

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.

This module emphasises a "hands-on" active approach to learning, with learning taking place through a variety of complementary mechanisms, including lectures, seminars, with associated practical sessions, research into current developments and issues, and case studies.

Topics will be introduced in lectures and discussed through guided inquiry and problem-based learning activities. Theoretical material will be re-enforced and consolidated through the critical analysis and discussion of case studies in tutorials that are designed to explain and elaborate both on theoretical and laboratory content. Students are guided through real-world scenarios featuring structured inquiry based learning. Additionally, directed learning will reinforce essential theory and place understanding into context. An “industry lecture series" will provide examples of current practice, approaches and challenges as portrayed by practitioners across various industry sectors.

The subject discipline is continuously evolving and as a result students will be expected to keep up to date with developments through independent study. Students will be encouraged to adopt an independent learning style, acquiring and applying knowledge through their own enquiry, supported by a series of guided activities and exercises. Students will be encouraged to share the findings of their enquiry through seminar presentations and participation in on-line discussions with the student cohort.

The material presented in this module is potentially damaging if used maliciously and the capabilities developed in this module have potential for harm. Academics will emphasise the professional expectations of students and of persons working in this domain as well as stressing the students' legal, ethical and moral responsibilities.

Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	24
Laboratory / Practical Demonstration / Workshop	24
Independent Study	152
Please select	
Please select	
Please select	
TOTAL	200

Indicative Resources

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Mahalik et al (2018) 3rd Ed. Practical Mobile Forensics: A hands-on guide to mastering mobile forensics for the iOS, Android, and the Windows Phone platforms. Packt Publishing

Reiber, L. (2016) Mobile Forensic Investigations: A Guide to Evidence Collection, Analysis, and Presentation. McGraw-Hill Education

Afonin, O. and Katalov, V. (2016) Mobile Forensics - Advanced Investigative Strategies. Packt Publishing

Please ensure the list is kept short and current. Essential resources should be included, broader resources should be kept for module handbooks / Aula VLE.

Resources should be listed in Right Harvard referencing style or agreed professional body deviation and in alphabetical order.

(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)

Attendance and Engagement Requirements

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.

For the purposes of this module, academic engagement equates to the following:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Computing**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Business & Applied Computing

Moderator	TBC
External Examiner	M Davis
Accreditation Details	
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	1.2

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Assessment 1 – Closed Book Class Test and Report 50% - Two hour closed book class test to enable students to demonstrate a practical application of mobile device acquisition techniques and the reported findings
Assessment 2
Assessment 2 – Practical Assignment and Report 50% Practical assignments enable students to demonstrate their analytic skills in the forensic examination of digital artefacts.
Assessment 3
(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.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Closed Book Class Test and Report	☒	☒	☒	☒	☐	50	2

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Practical Assignment and Report	☒	☒	☒	☒	☐	500	

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	hours

Change Control

What	When	Who
Attendance, EDI and Exernal Examiner updated	22/01/2025	A Adamson