Module Title:	Automating Security Practice
Language of Instruction:	English

Credits:	5

NFQ Level:	7

Module Delivered In	2 programme(s)

Teaching & Learning Strategies:	As well as traditional lectures learners will undertake various laboratory exercises. Learners will be expected to actively participate in class and work throughout each scheduled lab session to accomplish assigned tasks.

Module Aim:	To provide learners with a theoretical knowledge and the practical skills to automate cybersecurity testing and attack automation techniques.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Implementation of programming libraries for cybersecurity assessment and task automation.
LO2	Apply and analyse web application attack vectors and exploitation frameworks.

Pre-requisite learning	
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*	
No recommendations listed	
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*	
No requirements listed	

Module Content & Assessment

Indicative Content
Indicative Content Web application mapping, Brute-Forcing directories and file locations, Brute-Forcing web application authentication, Extending burp proxy functionality, Fuzzing techniques, Web Spidering, Web Scraping, Metadata analysis, Automating Nmap scans, HTTP header manipulation and investigation, Automating vulnerability detection

Assessment Breakdown	%
Project	100.00%

No Continuous Assessment

Project				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Project	Project on content up to week 11	1,2	40.00	n/a
Project	Project on content up to week 8.	1,2	30.00	n/a
Project	Project on content up to week 5.	1	30.00	n/a

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Laboratories	12 Weeks per Stage	4.00
Independent Learning	15 Weeks per Stage	5.13
	Total Hours	125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCCYB_B	[Bachelor of Science (Honours) in Cyber Crime and IT Security](#)	5	Mandatory
CW_KCCYB_D	[Bachelor of Science in Cybercrime and IT Security](#)	5	Mandatory