

## **COURSE OUTLINE**

# SEC702 Cyber Intelligence

School: School of Science, Technology and Engineering

Online

Semester 1

You can do this course without coming onto campus, unless your program has specified a mandatory onsite requirement.

Please go to usc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

## 1. What is this course about?

#### 1.1. Description

In this online course, you will learn about the conduct of open source intelligence collection, and the measures used by criminals to conceal and obfuscate their online identities and activities. You will learn about useful software applications and tools, identity exploitation and techniques, online cyber tradecraft, markets and currencies: all integral skills in the development of a professional cyber investigator.

#### 1.2. How will this course be delivered?

| ACTIVITY  | HOURS | BEGINNING WEEK | FREQUENCY |
|---|-------|----------------|-----------|
| ONLINE  |       |                |           |
| <b>Tutorial/Workshop 1</b> – The tutorial is delivered through Zoom each week   | 1hr   | Week 1         | 13 times  |
| Online – Content is delivered through Sway and Blackboard plus outside readings | 5hrs  | Week 1         | 13 times  |

#### 1.3. Course Topics

- 1 Cyber intelligence and open source intelligence basics
- 2 OSINT collection techniques Web exploitation
- 3 OSINT collection techniques Online and automated tools
- 4 Identity management
- 5 Identity management
- 6 Identity management
- 7 OSINT collection techniques Finding people
- 8 OSINT collection management
- 9 Introduction to online illicit markets
- 10 Introduction to online illicit markets
- 11 Introduction to online illicit marketplaces Payment systems
- 12 Personal device management strategies
- 13 Device security

## 2. What level is this course?

700 Level (Specialised)

Demonstrating a specialised body of knowledge and set of skills for professional practice or further learning. Advanced application of knowledge and skills in unfamiliar contexts.

## 3. What is the unit value of this course?

12 units

# 4. How does this course contribute to my learning?

| COU | RSE LEARNING OUTCOMES  | GRADUATE QUALITIES  |
|-----|--|---|
| Ons | successful completion of this course, you should be able to  | Completing these tasks successfully will contribute to you becoming |
| 1   | Plan a strategy to collect OSINT while maintaining operational security  | Empowered   |
| 2   | Apply open source collection techniques used by cyber investigators  | Empowered   |
| 3   | Develop online tradecraft skills to conceal intent and obfuscate your identity to facilitate online collection of investigatory information. | Empowered   |
| 4   | Recognise and mitigate vulnerabilities In Identity data and Personal Electronic Devices (PEDs).  | Empowered   |
| 5   | Perform identify resolution to authenticate and differentiate online identities and analyse findings .                                       | Creative and critical thinker                                       |
| 6   | Detect illicit online behaviour  | Knowledgeable   |
| 7   | Communicate online investigatory findings and competencies   | Engaged   |

## 5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of "pre-requisites, co-requisites and anti-requisites".

5.1. Pre-requisites

Enrolled in SC510, SC517 or SC704

5.2. Co-requisites

SEC701

5.3. Anti-requisites

Not applicable

## 5.4. Specific assumed prior knowledge and skills (where applicable)

Students will be assumed to understand how the Internet operates and its role in society. They will be expected to have a working knowledge of computer systems and networks

# 6. How am I going to be assessed?

6.1. Grading Scale

Limited Grading (PNP)

Pass (PU), Fail (UF). All assessment tasks are required to be passed for successful completion of the course.

## 6.2. Details of early feedback on progress

Using marking rubrics, students will participate in continuous peer and self-assessment during tutorials

## 6.3. Assessment tasks

| DELIVERY<br>MODE | TASK<br>NO. | ASSESSMENT<br>PRODUCT  | INDIVIDUAL<br>OR GROUP | WHAT IS THE<br>DURATION /<br>LENGTH? | WHEN SHOULD I SUBMIT? | WHERE SHOULD I<br>SUBMIT IT? |
|------------------|-------------|--|------------------------|--------------------------------------|-----------------------|------------------------------|
| All              | 1           | Artefact - Technical<br>and Scientific, and<br>Written Piece | Individual             | 2000 words<br>equivalent             | Week 4                | Online Submission            |
| All              | 2           | Artefact - Technical and Scientific                          | Individual             | 1,500 words<br>equivalent            | Week 7                | Online Submission            |
| All              | 3           | Artefact - Technical<br>and Scientific, and<br>Written Piece | Group                  | 3,000 words equivalent               | Refer to Format       | Online Submission            |

# All - Assessment Task 1: Digital Identity Portfolio

| GOAL:              | The goal of this task is to demonstrate basic knowledge of search engines, search techniques, and the implications of online identity information.  |                           |  |  |  |
|--------------------|---|---------------------------|--|--|--|
| PRODUCT:           | Artefact - Technical and Scientific, and Written Piece  |                           |  |  |  |
| FORMAT:            | This task will involve developing and mastering a number of basic online open source collection techniques while maintaining privacy and protecting personal data from being collected by adversaries. Students will provide a written assessment of their online presence using a template provided. |                           |  |  |  |
| CRITERIA:          | No.   | Learning Outcome assessed |  |  |  |
|                    | 1 Application of open source collection techniques  |                           |  |  |  |
|                    | 2 Development of tradecraft skills  |                           |  |  |  |
|                    | 3 Recognition and mitigation of vulnerabilities   |                           |  |  |  |
|                    | 4 Communication of competencies   |                           |  |  |  |
|                    | 5 Assessment criteria are mapped to the course learning outcomes.   | <b>12345</b><br>67        |  |  |  |
|                    |   |                           |  |  |  |
| GENERIC<br>SKILLS: |   |                           |  |  |  |

#### All - Assessment Task 2: Collection Planning

| GOAL:              | The goal of this task is to demonstrate your understanding in the development of an online collection plan and identifying the necessary resources and requirement to deliver an effective collection effort in support of organisation requirements. |                           |  |  |  |
|--------------------|---|---------------------------|--|--|--|
| PRODUCT:           | Artefact - Technical and Scientific   |                           |  |  |  |
| FORMAT:            | You will develop an online collection plan using a prepared template to identify the required resources and techniques to target and collect against a specific topic provided by the instructor or of your choosing.                                 |                           |  |  |  |
| CRITERIA:          | No.   | Learning Outcome assessed |  |  |  |
|                    | 1 Planning, resourcing and preparing a collection effort  |                           |  |  |  |
|                    | 2 Application of open source collection techniques  |                           |  |  |  |
|                    | 3 Development of tradecraft skills  |                           |  |  |  |
|                    | 4 understanding of how and where data can be located and collected  |                           |  |  |  |
|                    |   |                           |  |  |  |
| GENERIC<br>SKILLS: |   |                           |  |  |  |
|                    |   |                           |  |  |  |

## All - Assessment Task 3: Open Source Collection Management

| GOAL:              | The goal of this task is to demonstrate mastery and understanding of open source intelligence collection while protecting personal data from adversarial collection.  |  |  |  |  |
|--------------------|---|--|--|--|--|
| PRODUCT:           | Artefact - Technical and Scientific, and Written Piece  |  |  |  |  |
| FORMAT:            | You will produce evidence of your ability to identify sources of information, the tools and techniques needed to collect and harvest the information, analyse the results and report the findings.  Submit: week 14 |  |  |  |  |
| CRITERIA:          | No. Learning Outcome assessed   |  |  |  |  |
|                    | 1 Application of open source collection technique   |  |  |  |  |
|                    | 2 Analysis of collection results  |  |  |  |  |
|                    | 3 Preparation of data collection strategy   |  |  |  |  |
|                    | 4 Communication of findings   |  |  |  |  |
|                    |   |  |  |  |  |
| GENERIC<br>SKILLS: |   |  |  |  |  |

## 7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

## 8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site—Please log in as soon as possible.

#### 8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

| REQUIRED? | AUTHOR           | YEAR | TITLE                               | EDITION | PUBLISHER       |
|-----------|------------------|------|-------------------------------------|---------|-----------------|
| Required  | Bazzell, Michael | 2017 | Personal Digital Security           | n/a     | n/a             |
| Required  | Michael Bazzell  | 2019 | Open Source Intelligence Techniques | 7th     | Michael Bazzell |
| Required  | Michael Bazzell  | 2019 | Extreme Privacy                     | 1st     | Michael Bazzell |

#### 8.2. Specific requirements

This is an online course and will require access to a personal computer with systems administrator rights, laptop or tablet and access to the Internet for at least 10 hours per week.

## 9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff.

## 10. What administrative information is relevant to this course?

#### 10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

## 10.2. Assessment: Additional Requirements

Limited Graded Course:

This course will be graded as Pass in a Limited Grade Course (PU) or Fail in a Limited Grade Course (UF) as per clause 4.1.3 and 4.1.4 of the Grades and Grade Point Average (GPA) - Institutional Operating Policy of the USC.

In a course eligible to use Limited Grades, all assessment items in that course are marked on a Pass/Fail basis and all assessment tasks are required to be passed for a student to successfully complete the course. Supplementary assessment is not available in courses using Limited Grades.

## 10.3. Assessment: Submission penalties

You must contact your Course Coordinator and provide the required documentation if you require an extension or alternate assessment.

#### 10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: <a href="mailto:0754301168">0754301168</a> or using the <a href="mailto:SafeZone">SafeZone</a> app. For general enquires contact the SafeUniSC team by phone <a href="mailto:0754563864">0754563864</a> or email <a href="mailto:safe@usc.edu.au">safe@usc.edu.au</a>.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call <u>07 5430 1226</u> or email <u>studentwellbeing@usc.edu.au</u>.

## 10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the <u>Learning Advisers</u> web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or <u>studentcentral@usc.edu.au</u>.

#### 10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to Student Hub, email studentwellbeing@usc.edu.au or call 07 5430 1226.

#### 10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, AccessAbility Services can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to Student Hub, email AccessAbility@usc.edu.au or call 07 5430 2890.

#### 10.8. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- · Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

#### 10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The <u>Student Charter</u> sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

#### 10.10.General Enquiries

#### In person:

- UniSC Sunshine Coast Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- o UniSC Moreton Bay Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- UniSC SouthBank Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- o UniSC Gympie Student Central, 71 Cartwright Road, Gympie
- o UniSC Fraser Coast Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- UniSC Caboolture Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au