COURSE OUTLINE

ICT301 Network Management and Security

School: School of Science, Technology and Engineering

2021 | Semester 2

UniSC Sunshine Coast	BLENDED LEARNING	Most of your course is on campus but you may be able to do some components of this course online.
Online	ONLINE	You can do this course without coming onto campus.

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

This course builds on pre-requisites with a focus on network design and specifically management. Security is examined at a range of levels, from the technical (cryptography) through to applied (systems and network security) and management. The course also examines broader issues associated with network management including business continuity, disaster recovery and service level agreements.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Online – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times
Tutorial/Workshop 1 – In-class tutorial	2hrs	Week 2	11 times
ONLINE			
Online – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times
Tutorial/Workshop 1 – Interactive zoom tutorial	2hrs	Week 2	11 times

1.3. Course Topics

1 Introduction to network security

2 Network security threats & Cryptography

3 Advanced Cryptography

4 Networking and Server Attacks/ Devices, Design and Technology

5 Administering a Secure Network Wireless Network Security

6 Host, Application, and Data Security

7 Mobile and Embedded Device Security

8 Authentication and Account Management

9 Access management

10 Vulnerability Assessment

11 Data Security and Business Continuity

12 Risk Mitigation

2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...		GRADUATE QUALITIES Completing these tasks successfully will contribute to you becoming...
1	Apply network management and security knowledge and skills to problems.	Creative and critical thinker Empowered
2	Apply written communication skills to network management and security problems.	Knowledgeable Engaged
3	Design systems to meet business network management and security requirements.	Ethical

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

ICT120

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

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

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Online, non-graded weekly quizzes. The Task 1 mid semester exam (and preparation leading up to the exam) is designed to help students develop skills they will require to complete Tasks 2 and 3.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Examination - not Centrally Scheduled	Individual	15%	1 hour	Week 5	In Class
All	2	Report	Individual	40%	2,500 words maximum	Week 12	Online Assignment Submission with plagiarism check
All	3	Examination - Centrally Scheduled	Individual	45%	2 hours	Exam Period	Exam Venue

All - Assessment Task 1: Mid-Semester exam

GOAL:	For you to demonstrate your understanding of the course content
PRODUCT:	Examination - not Centrally Scheduled
FORMAT:	This is an individual assessment.During week 5 lecture a 1-hour multiple choice and short answer exam will be conducted. The exam will focus on lectures, tutorial work and readings for weeks 1 through to 4 inclusive.

CRITERIA:

No.		Learning Outcome assessed
1	understanding of requisite network knowledge from weeks 1 through 4 inclusive	2
2	application of network concepts to scenarios	1

All - Assessment Task 2: Network management report

GOAL:	For you to demonstrate your ability to discuss network management and security applied to a business case.
PRODUCT:	Report
FORMAT:	This is an individual assessment. Using a case study, you are to prepare a consultant's report detailing the network management and security requirements for a business and to suggest and justify suitable technologies to enhance the business's communications and networking within and outside the organisation.

CRITERIA:

No.		Learning Outcome assessed
1	application of network management and security concepts to case study	3
2	critical analysis and evaluation of network management and security requirements of a business	1
3	provide project background and network security information relevant to the case study	2
4	Written communication skills	2

All - Assessment Task 3: Examination

GOAL:	For you to demonstrate your ability to discuss network management and security applied to a business case.
PRODUCT:	Examination - Centrally Scheduled
FORMAT:	Individual invigilated assessment Two-hour closed book exam focusing on all aspects of the courseStudents will be required to apply key concepts of network management and security to case studies and scenarios.Further details are provided in the assessment area in Blackboard.
CRITERIA:	

No.		Learning Outcome assessed
1	application of network management and security concepts to case study	1
2	Evidence awareness of industry best practice in network management and security requirements of a business	3
3	provide information on network planning, business continuity and risk management information relevant to an organisation situation.	1

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	Ciampa, M	2018	Security + Guide to Network Security Fundamentals	6th Edition	Cengage, Boston, USA.

8.2. Specific requirements

Not applicable

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

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%
The course is graded using the Standard Grading scale
You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate:
- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

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: 07 5430 1168 or using the SafeZone app. For general enquires contact the SafeUniSC team by phone 07 5456 3864 or email safe@usc.edu.au.

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 07 5430 1226 or email studentwellbeing@usc.edu.au.

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 Learning Advisers web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

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 Student Charter 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
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **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