COIT13236 *Network Security Project*
Term 1 - 2020

Profile information current as at 27/04/2024 06:56 am

General Information

Overview
This unit is the capstone to the Network Security specialisation of the Bachelor of Information Technology course. The unit is designed so that you can demonstrate your learning across the whole course of study before making the transition to the next stage of your career. To this end, you are to conduct a group project including the design and implementation of a network security plan that meets client's requirements. Deliverables will include the formal security plan and configured secure infrastructure as part of an overall portfolio of planning and design documentation, scripts, and rules. In order to deliver a robust solution, you will need to choose and employ an appropriate project management methodology. The delivered infrastructure will undergo stress testing and simulated security attack scenarios.

Details
Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *12*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites
Prerequisites: (COIS13064 or COIT12208) and COIT12202 Corequisites: COIT13146 and COIT13229
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2020

- Brisbane
- Cairns
- Melbourne
- Online
- Rockhampton
- Sydney
- Townsville

Attendance Requirements
All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website
This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 12-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 25 hours of study per week, making a total of 300 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Report**
Weighting: 40%
2. **Portfolio**
Weighting: 20%
3. **Written Assessment**
Weighting: 20%
4. **Presentation**
Weighting: 20%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student unit evaluation

Feedback

Some students perceived that the feedback for progress reports should be given earlier.

Recommendation

Make sure students get assessment feedback within the specified university timeframe. Monitor more closely that the teaching team complies with this guideline.

Feedback from Student unit evaluation

Feedback

Overall this class has been a great learning curve. The assignments were very clearly explained, and provided real world experience.

Recommendation

Continue designing learning and assessment materials to enhance the student learning experience.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Analyse network security requirements and produce a comprehensive network security plan
2. Create test plans and implement technically sound and well-documented security technologies
3. Evaluate security protections and examine their level of compliance and effectiveness
4. Produce the project management artefacts required in a typical network security project
5. Demonstrate productive participation and contribution to a project team or work environment
6. Demonstrate work readiness in terms of technical skills, communication skills, and both professional and ethical behaviour.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles.
ACS members can use the tool MySFIA to build a skills profile at
https://www.acs.org.au/professionalrecognition/mysfia-b2c.html
This unit contributes to the following workplace skills as defined by SFIA. The SFIA code is included:

- Project Management (PRMG)
- IT Management (ITMG)
- Information Security (SCTY)
- Security Administration (SCAD)
- IT Governance (GOVN)
- Technical specialism (TECH)
- IT Infrastructure (ITOP)
- Systems Installation/Decommissioning (HSIN)
- Network Support (NTAS)
- Network Planning (NTPL)
- Network Design (NTDS)
- System Design (DESN)
- Penetration testing (PENT)
- Information Assurance (INAS)

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level
• Introductory Level
• Intermediate Level
• Graduate Level
◦ Professional Level
◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Report - 40%	•	•	•			•
2 - Portfolio - 20%				•	•	•
3 - Written Assessment - 20%	•	•	•	•		
4 - Presentation - 20%					•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
1 - Communication	•			•	•	•
2 - Problem Solving	•	•	•	•		
3 - Critical Thinking	•	•	•	•		
4 - Information Literacy	•	•	•	•		
5 - Team Work				•	•	•
6 - Information Technology Competence	•	•	•			•
7 - Cross Cultural Competence					•	
8 - Ethical practice		•	•		•	•
9 - Social Innovation					•	•
10 - Aboriginal and Torres Strait Islander Cultures						

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Report - 40%	•	•	•	•		•		•		
2 - Portfolio - 20%	•			•		•		•	•	
3 - Written Assessment - 20%	•	•		•	•	•				

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
4 - Presentation - 20%	•			•	•	•				

Textbooks and Resources

Textbooks

There are no required textbooks.

Additional Textbook Information
No textbooks required.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing styles below:

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

For further information, see the Assessment Tasks.

Teaching Contacts

Edilson Arenas Unit Coordinator
e.arenas@cqu.edu.au

Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to project by mentor Form project groups	No prescribed textbooks for this unit	Make entries in the Portfolio covering activities performed in this week

Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor Project selection	No prescribed textbooks for this unit	Make entries in the Portfolio covering activities performed in this week

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic

Weekly meeting with the project mentor	No prescribed textbooks for this unit	Make entries in the Portfolio covering activities performed in this week

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Submit a Project Plan 3. Submit and present Progress Report-1

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Show your portfolio to your mentor for feedback (required), then submit it after addressing the feedback.

Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Submit and present Progress Report-2

Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	Make entries in the Portfolio covering activities performed in this week

Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Submit and present Progress Report-3

Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Show your portfolio to your mentor for feedback (required)

Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Submit and present Progress Report-4

Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Make entries in the Portfolio covering activities performed in this week 2. Group Project Presentation

Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
Weekly meeting with the project mentor	No prescribed textbooks for this unit	1. Submit Portfolio 2. Submit FINAL Project Report 3. Group Project DEMO **Project Report and Technical Implementation** Due: Week 12 Friday (5 June 2020) 11:45 pm AEST **Portfolio** Due: Week 12 Friday (5 June 2020) 11:45 pm AEST

Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
	No exam	

Exam Week - 15 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
	No exam	

Term Specific Information

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Assessment Tasks

1 Project Report and Technical Implementation

Assessment Type
Report

Task Description
This is a practical activity that requires demonstration of the implementation of your network and security plan. You must identify key threats and challenges, and implement technology to address them. The technology has to address key challenges to the network environment. You are required to submit the technical documentation including network analysis and design, security risk analysis, test plan, test results and any network security policies and/or procedures that result from your implementation test.

Assessment Due Date
Week 12 Friday (5 June 2020) 11:45 pm AEST

Return Date to Students

On certification day

Weighting
40%

Assessment Criteria
The project report and technical documentation will be assessed upon the quality of the content. This includes the presentation layout and the depth and breadth of your project recommendations adhering

to the implementation of a secured computer network.
Note: Please refer to the unit website in Moodle for further information and detailed marking criteria.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

Submission
Online Group

Submission Instructions
Refer to Moodle

Learning Outcomes Assessed

- Analyse network security requirements and produce a comprehensive network security plan
- Create test plans and implement technically sound and well-documented security technologies
- Evaluate security protections and examine their level of compliance and effectiveness
- Demonstrate work readiness in terms of technical skills, communication skills, and both professional and ethical behaviour.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Ethical practice

2 Portfolio

Assessment Type
Portfolio

Task Description
This is an individual task. Use your portfolio to capture things like:

1. Activities that you performed during the week
2. Your contributions to the overall project requirements
3. Challenges faced
4. Reflections and experiences in conducting the project
5. Bibliography such as technical journals, websites, trade magazines, etc. you used to support your work

Assessment Due Date
Week 12 Friday (5 June 2020) 11:45 pm AEST

Return Date to Students

On certification day

Weighting
20%

Assessment Criteria
You are required to submit your portfolio in week 12 for assessment; however, it is essential to maintain this document throughout the term as it is the only component of the unit assessed individually. Failure to submit a portfolio will disadvantage your overall marks. **We recommend to make entries in the portfolio on each occasion you undertake work on the project for personal reflections and lessons learned. You are expected to make a portfolio entry at least once a week. Periodically, you are required to show your portfolio to your mentor to receive feedback on the quality of the content, and the overall look and feel of it.**
The Moodle site provides further information and specific marking criteria.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

Submission
Online

Submission Instructions
Refer to Moodle

Learning Outcomes Assessed

- Produce the project management artefacts required in a typical network security project
- Demonstrate productive participation and contribution to a project team or work environment
- Demonstrate work readiness in terms of technical skills, communication skills, and both professional and ethical behaviour.

Graduate Attributes

- Communication
- Information Literacy
- Information Technology Competence
- Ethical practice
- Social Innovation

3 Project Plan and Project Progress Reports

Assessment Type
Written Assessment

Task Description
This group assessment comprises two items:
Project Plan due in week 4
Four progress reports due in weeks 4, 6, 8, and 10

Assessment Due Date

See exact dates in Moodle.

Return Date to Students

Assessment returned two weeks after submission. See exact dates in Moodle.

Weighting
20%

Assessment Criteria
Project plan (12 marks)
Due: Friday, Week 4
You are required to submit a project plan outlining the project scope, objectives, constraints, statement of work, project team members, RACI matrix, GANTT Chart, project risks, and proposed mitigation plan.
Periodic Project Progress Reports (four reports @ 2 marks each for a total of 8 marks)
Due: Fridays, Week 4, 6, 8, and 10
This is a group assessment.
Each group must submit four periodic project progress reports using a standard template provided on the unit website in Moodle.
On-campus students: Each member of your group MUST give an in-class presentation of each project progress report.
Distant or Flexible students: The Unit Coordinator will provide you necessary instructions to present your group's periodic progress reports.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

Submission
Online Group

Learning Outcomes Assessed

- Analyse network security requirements and produce a comprehensive network security plan
- Create test plans and implement technically sound and well-documented security technologies
- Evaluate security protections and examine their level of compliance and effectiveness
- Produce the project management artefacts required in a typical network security project

Graduate Attributes

- Communication
- Problem Solving
- Information Literacy
- Team Work
- Information Technology Competence

4 Group Project Presentation

Assessment Type
Presentation

Task Description
Each group must present their projects in a plenary session in week 11 of the term. This is followed by a project demonstration in week 12.

Assessment Due Date

Please refer to Moodle for exact dates

Return Date to Students

On certification day

Weighting
20%

Assessment Criteria
Each member of the group must submit their group's PowerPoint slides through the appropriate link in Moodle. Please refer to the unit website in Moodle for detailed information about the project presentation (week 11), project demonstration (week 12), and marking criteria.
On-campus students: The date and time will be determined by your local lecturer/tutor.
Distant students: The time and technology employed will be determined on an individual basis.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

Submission
Online Group

Learning Outcomes Assessed

- Demonstrate productive participation and contribution to a project team or work environment

Graduate Attributes

- Communication
- Information Literacy
- Team Work
- Information Technology Competence

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem