

Unit of Study: BIS3004 IS Security and Risk Management

Overview:

Security is a vital responsibility for organisations, and it is critical to IT applications and business success. This unit explores the concept and specialised applications of information security and risks associated with information systems, and the implications that these risks have in a larger business context. Topics covered include cryptography fundamentals, computer security, network security, data security, web security, social issues of security and implementation. This unit provides students with advanced knowledge and skills for IT security industry. Students will develop the ability to identify different types of risks and learn how organisations employ various methods to manage those risks. Students will come to understand the importance of information security and risk management through a variety of case studies, developing both a theoretical and practical grasp of the role information system risk management plays in modern business.

Course(s)	Bachelor of Business Information Systems Bachelor of Information Technology
Credit Points	6 credit points
Duration	12 weeks (10 teaching weeks; 1 study week; 1 final assessment week)
Level	Undergraduate Advanced
Student Workload	Students should expect to spend approximately 10 hours per week over 12 weeks (totalling approximately 120 hours) on learning activities for this unit.
Mode(s) of Delivery	On campus, Blended
Pre-Requisites	BIS2001 IT Infrastructure and Networking
Unit Coordinator	As per current timetable
Contact Information	Consultation: 1 hour scheduled session

Unit Learning Outcomes:

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

- ULO-1: Research and synthesise technical concepts and frameworks related to information security, computing, networking, and emerging technologies.
- ULO-2: Diagnose security risks, threats and vulnerabilities to the organisation and discuss appropriate information security protection mechanisms.
- ULO-3: Develop risk management plans for specific organisational challenges using contemporary risk identification, assessment, and control techniques.
- ULO-4: Evaluate the essential elements of modern network security including cryptography algorithms, digital certificates, public key infrastructure, and transport encryption protocols.

Weekly Schedule

Week	Topic
Week 1	Introduction to Security
Week 2	Malware and Social Engineering Attacks
Week 3	Application and Networking-Based Attacks
Week 4	Risk Assessment
Week 5	Risk Control
Week 6	Basic Cryptography
Week 7	Advanced Cryptography-I
Week 8	Advanced Cryptography-II
Week 9	Network Security Fundamentals
Week 10	Administering a Secure Network
Week 11	REVISION
Week 12	FINAL ASSESSMENT SUBMISSION

Assessments







- All assessments are compulsory.
- To pass the unit students must:
 - achieve a total of 50% or more of marks offered; and
 - pass all individual invigilated assessments; and
 - have attempted all assessments.

Where one or more of these requirements are not met, the Board of Examiners will consider a student's overall progress towards meeting the unit learning outcomes and any special circumstances before reaching a decision.

- The Board of Examiners may grant a supplementary assessment where a student:
 - achieves a total of 45% or more; and
 - has passed all individual invigilated assessments in the unit; and
 - has attempted all assessments; and
 - has a recommendation for supplementary assessment by the Unit Coordinator and the Head of Discipline.

Where one or more of these requirements are not met, the Board of Examiners will consider a student's overall progress towards meeting the unit learning outcomes and any special circumstances before reaching a decision. Attendance and engagement in class will be considered.

- APIC awards common result grades as set out in the [Award of Grade Policy](#).
- Detailed information for each assessment can be found on the Unit's Home Page and in the Assessment Brief.

Assessment Task	Type	Weighting	Due	Length	ULO
Assessment 1: Case Study Write a report to discuss recent type of information security attacks, protection mechanism and risk management.	Individual 	30%	Week 6	2500 words	ULO-2 ULO-3 ULO-4
Assessment 2: Quiz quizzes assess students' ability to understand theoretical materials. The quiz will be either multiple choice questions or short questions which are relevant to the lecture materials.	Individual  Invigilated 	30%	Week 3, 4, 6, 8, 10	700 words	ULO-1 ULO-2 ULO-3 ULO-4
Assessment 3: Laboratory Practicum lab activities and exercises assess students' ability to understand theoretical materials.	Individual  Invigilated 	10%	Weekly	equiv. 2300 words	ULO-1 ULO-2 ULO-3 ULO-4
Assessment 4: Applied Project Discuss and implement IS security protection techniques and implementing access control under Linux.	Group 	30%	Week 12	2500 words	ULO-1 ULO-2 ULO-3 ULO-4

Equiv. – equivalent word count based on the Assessment Load Equivalence Guide. It means this assessment is equivalent to the normally expected time requirement for a written submission containing the specified number of words.

Course Reserve

Course Reserve includes all required resources and reading material for the unit of study. You can access Course Reserve via [APIC Library](#) or via the Course Reserve link on the unit's homepage.

Prescribed text(s):

Ciampa, M 2020, *CompTIA Security+ guide to network security fundamentals*, 7th edn, Cengage, North Ryde.

Recommended Readings:

David L. Prowse. 2017. *CompTIA Security+ Sy0-501 Cert Guide, Academic Edition (2nd Edition)* (2nd ed.). Pearson IT Certification, USA.

SANS institute (sans.org) provides a set of policy templates that can be used to develop different cybersecurity policies for SME (<https://www.sans.org/security-resources/policies>). [Accessed 31 Jan 2022].

Other Recommended Resources:

Australian government-Australian signals directories, *Australian cyber security centre*, <https://www.cyber.gov.au/>.

Academic integrity

Ethical conduct and academic integrity and honesty are fundamental to the mission of APIC and academic misconduct will not be tolerated by the College. It is the responsibility of every student to make sure that they understand what constitutes academic misconduct and to refrain from engaging in it. Please refer to APIC's [Academic Integrity Policy](#) for further details.

Other Important Information and Links

<p>Special consideration</p> <p>If your academic work is impacted by significant documented illness, hardship, or other adverse circumstances beyond your control, you may make an application for Special Consideration. Please refer to the Assessment Policy for further details.</p>	<p>Late submission</p> <p>Penalties apply when work is submitted after the due date without approval. Please refer to the Assessment Policy for information about late submission.</p>
<p>Assessment appeals</p> <p>If you are concerned about a mark you have received for an assessment or final grade, you may apply to formally appeal the grade. Please see the Assessment Policy for further details.</p>	<p>Award of grades</p> <p>APIC awards common result grades, set out in the Award of Grade Policy.</p>
<p>Expectations of student conduct</p> <p>Students are expected to conduct themselves in a manner that is consistent with a safe and respectful study environment. More information can be found in the Student Code of Conduct.</p>	<p>Study resources</p> <p>APIC Library and Student Learning Support resources and services can be accessed via the Student Lounge or your Dashboard on the OLS (Canvas).</p>
<p>Student Services</p> <p>The Student Services team provides administrative support for students and handles enquiries about enrolment, timetables, important dates and submitting forms. More information can be found on the Student Services page on the OLS (Canvas).</p>	<p>Key dates</p> <p>Key dates through the academic year, including teaching periods, census, payment deadlines and exams can be found on the Academic Calendar section of the APIC website.</p>

Changes and Updates to the Unit of Study Guide

This Unit of Study Guide may be updated and amended from time to time. Students will be notified of any changes to the unit via the Online Learning System (Canvas) space for the unit.

This Unit of Study Guide was last modified on 2nd June 2023.